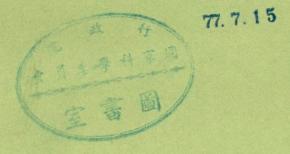
1972

NSC

REVIEW



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The 1972 National Science Council (NSC) Review covers the period from July 1971 to June 1972. Since it represents the termination of the First Four-Year Science Development Plan, it is high time for us to make a summarized report of the progress of various projects undertaken and achieved by NSC.

I. LONG-RANGE SCIENCE DEVELOPMENT PLANS

In response to the present and the future needs of the country, the Government of the Republic of China established in 1967 a Committee for Science Development under the National Security Council. In its capacity as an advisory unit to the President in the matter of science, the Committee has become the highest agency for policy making and resource allocation pertaining to the development of science and technology in the country. At the recommendation of the Committee, the National Council for Science Development (NCSD) was reorganized into the present National Science Council (NSC) as an independent agency under the Executive Yuan, entrusted to manage its budget as the National Science Fund, and to coordinate the implementation of scientific and technological activities of all Government agencies.

In the autumn of 1968, in pursuance of the instruction entitled "Important Responsibilities of Committee for Science Development" given by President Chiang Kai-shek, a sequence of three Four-Year Science Development Plans was mapped out for the purpose of meeting the science requirements of of the educational, industrial, agricultural and social development of the country. The master program emphasizes three major directions as follows:

- 1. Science Education—the strengthening of science education in the entire education system from the elementary school up.
- 2. Science Research—the stepping up of science research both in pure and in applied sciences as well as humanities and social sciences.
- 3. Coordination between Economic Reconstruction and Scientific and Technological Development—the bridging of the gap between the academic institutions and the practical application as required in such areas as industry, agriculture, communications, medicine, and public health.

These tasks are designed to achieve two basic objectives: namely, the training of an adequate scientific and technological manpower to attain a measure of academic independence, and the carrying out of research and development in certain scientific and technological fields to meet the nation's urgent and future needs of knowhow for economic and social developments.

The First Four-Year Science Development Plan started in FY 1969 and the annual science fund dramatically grew, for example, from a mere sum of NT\$ 30,000,000, of the first annual science development fund for 1959-60 to NT\$ 320,000,000 for FY 1969, which represents a 1,000% increase of the fund from the first allocation nine years ago. The fund has further increased to NT\$ 420,000,000 for the FY 1972, which again

registers an increase of 25% over that of the FY 1969. (The exchange rate at that period was US\$1 to NT\$40).

For the convenience of reference a chart to summarize and itemize the distribution of the Science Development Fund will be useful. The breakdown of the actual appropriation is listed as follows (See Chart A):

CHART A. Itemized Allocation of Science Development Fund for the First Science Development Plan FY 1969 to FY 1972

(Unit: NT\$1,000)

Article	Item	Section	Description	FY 1969	FY 1970	FY 1971	FY 1972
I.			Science Education and Cultivation of Scientific and Technological Manpower	87,849	132,619	113,937	128,020
	A.		Science Education	200	-		4,000
	В.		Translation of Well-known Science Books and Revision of Science Textbooks for Colleges & Universities	5,140	5,140	1,720	1,720
	c.		Research Grants to Individual Scholars	20,840	20,844	20,844	42,000
	D.		Contracted Professors	18,873	41,902	26,745	13,000
		1.	Visiting Professors from Overseas	5,488	11,902	11,902	13,000
		2.	Special Chairs	3,413	_	-	
		3.	National Research Professors	9,972	30,000	14,843	
	Ε.		Employment of Specialists from Over- seas for Special Consultations	3,520	3,920	3,520	1,250
	F.		Fellowships for Advanced Studies Abroad	31,278	50,000	50,000	50,000
	G.		Manpower Surveys & Special Education	600	_	600	_
	н.	1222	Scholarships for Science Graduate Students	2,478	3,313	3,708	_
	I.		Training of Science Admin. Personnel	720	2,500	2,800	2,800
	J.	_	Science Instrumentation & Documention Center	4,200	5,000	4,000	13,250
п.			Basic Science Research	72,868	95,000	85,884	72,411
	Α.	1	Special Subsidies for Academia Sinica	6,657		13,473	
	в.		Supporting Funds for 5 Research Centers of Academia Sinica	19,811	50,000	65,000	50,000
	c.	İ	Research in Biochemistry	1			8,000
	D.		Research Facilities, Equipment, and Instruments for Special Projects	46,400	45,000	74,115	14,411
		1.	Books & Instruments	42,000	39,900	7,411	9,411
		2.	Buildings (including Scholars' Quarters)	4,400	5,100	-	5,000

CHART A. (continued)

Article	Item	Section	Description	FY 1969	FY 1970	FY 1971	FY 1972
ш.			Humanities & Social Social Sciences	6,906	7,500	7,700	15,000
w.			Industrial Research & Applied Science Studies.	62,121	69,500	85,485	155,400
	Α.		Industrial Research	26,500	18,500	20,600	20,600
		1.	Eneagy Resources Research for In- dustrial Development	16,000	10,450	3,000	4,000
		2.	Mining Research for Industrial Development	6,640	5,550	3,600	2,600
		3.	Steel Industrial Research	3,000	2,500	3,000	3,000
		4.	Industrial & Research Complex	860		11,000	11,000
	В.		Studies of Earth Sciences		750	1,125	2,000
	c.		Oceanographical Studies	12,797	10,000	17,860	28,000
	D.		Ship Model Experiments Laboratory	5,500	5,250	2,500	2,500
	Ε.		Electronics Research	3,000	5,000	7, 500	7,500
	F.		Earthquake Research	_			15,000
	G.		Material Sciences & Industrial Chemistry Technology	-	-	-	12,500
	н.		Textile, Food, & Electronics Industry			_	15,000
	Ι.		Agricultural Research	8,324	20,000	24,000	30,000
	J .		Communications Research	1,500	4,500	5,900	7,300
	к.		Atmospheric Sciences (including Mete- orology & Typhoon Studies)	4,500	5,500	6,000	15,000
v.			Research of Application of Atomic Energy for Practical Uses	_		1,950	2,500
vī.			Medical & Public Health Research	7,000	20,000	3,000	18,000
VII.			Promotion of Science Development & Miscellaneous Studies	10,094	7,965	10,309	32,080
 	Α.		Subsidies for Academic School Publications	1,166	1,124	1,000	1,000
	в.		International (Mainly Sino-US) Science Cooperations	1,800	_		15,000
	c.		Screening of Academic Research Papers & Editing & Publication of Reports	1,239	1,600	1,670	1,700
	D.		Science Seminars	1,000	1,500	1,385	1,700
	E.		Administrative Management	4,289	3,141	5,654	12,080
,	F.		Support for Liaison Activities of Committee for Science Development	600	600	600	600

CHART A. (continued)

Article	Item	Section	Description	FY 1969	FY 1970	FY 1971	FY 1972
VIII.			Accumulated Reserve	54,867	29,081	10,835	5,015
	A.		Appropriation from Central Government	54,867	6,808	10,835	5,015
	В.		Contribution from Taiwan Prov. Gov't.	_	400	_	_
			TOTAL	301,705	351,665	324,100	428,406

II. THE PROGRESS OF THE FIRST FOUR-YEAR SCIENCE DEVELOPMENT PLAN

A. Objectives

The three objectives of the First Four-Year Science Development Plan, as has been stated above, are: 1. strengthening of science education in general; 2. cultivation of science research manpower; and 3. coordination between economic reconstruction and scientific and technological developments. These objectives are in effect pegged to the requirement of the current educational, industrial, agricultural and social developments of the nation as a whole. The coordination, for the purpose of better achievement of the objectives of NSC, is broadened to cover the assistance and support from various other government agencies such as Ministry of Education, Ministry of Economic Affairs, Joint Commission for Rural Reconstruction, Ministry of Communications, Ministry of National Defense, etc..

B. Summary of the Progress of Various NSC Programs

1. Science Education Programs

a. Assistance to Science Education

The science fund is used to support the research on the curricula, text-books, and teaching method for science education at all levels of schools, compilation and publication of undergraduate and graduate reference books and other materials, and the cultivation of science teachers of all school levels.

b. Program of Individual Research Grants

An increasing number of research grants, expanded from 244 grants in 1960 to 776 in 1969, and further increased to 1,292 grants in 1972, have been awarded by NSC annually to university and college faculty members as well as scientists in public research institutions. This program substantially helps to keep scientists of the Republic of China better provided in their livelihood as each grant carries a stipend roughly equivalent to the teacher's or the researcher's regular salary. Being better provided financially, the scientists naturally find it easier to devote their full time to his research and teaching duties.

Chart B will show the number of scholars awarded such a grant and the total sum of NSC expenditure in this respect:

CHART B. Number of Science Scholars Awarded Individual Research Grants and NSC Appropriation for the Grants from FY 1960 to FY 1972

		4	4							ļ				
Classification	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	Total Number of Science Scholars
a. Natural & Math. & Engi- neering											. ,			
(1) Class A	49	62	66	94	111	115	135	174	144	156	165	156	185	1,662
(2) Class B	46	29	102	75	68	28	35	120	130	117	128	145	116	1,314
(3) Class C											30	82	162	250
(4) Class D			-										71	71
Total	- 95	146	201	169	200	199	230	294	274	273	223	329	534	3,297
b. Biological Agricultural, & Medical Sciences														
(1) Class A	52	83	105	116	127	114	144	132	123	137	141	139	126	1,538
(2) Class B	26	99	105	114	110	100	74	133	128	140	109	107	22	1,289
(3) Class C											22	28	157	298
(4) Class D							•						93	93
Total	78	148	210	230	237	214	218	265	251	277	307	330	453	3,218
c. Humanities & Scial Sciences		-												
(1) Class A	45	64	83	100	105	118	140	157	133	140	152	157	136	1,530
(2) Class B	26	32	39	29	29	62	94	28	104	98	92	7.1	25	904
(3) Class C											23	20	69	112
(4) Class D													16	16
Total	17	96	122	159	172	197	234	244	237	526	251	248	305	2,562

CHART B. (continued)

										-				1000
Classification	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	Number of Science Scholars
Total of										-		Ç		002.7
(1) Class A	146	225	287	310	343	347	419	463	400	433	458	707	774	4,790
(2) Class B	86	165	346	248	266	263	263	340	362	343	313	323	277	3,507
(2) Crass (2)	3										110	162	388	099
(S) Class C													180	180
(4) Class D		Ö	c C	D L	000	610	689	803	762	922	881	937	1,292	9,077
Total	744	390	553	900	600	OTO	700	3			}			
Appropriation														
	3,698.4	5,521.2	7,627.2	8,227	11,040	11,040	13,824	15,120	15,120	20,840	20,844	20,844	42,000	, :
	-											Grand Total:	Total:	195,746

Remarks: From 1960 to 1971 Class A is awarded to professors and Associate Professors or Research Fellows and Associate Research Fellows Class B to Instructors and Lecturers or Assistant Research Fellows

Class C to Assistants or Research Assistants

The classification to non-academic institutions is given to the equivalents.

Class A: to Professors or Research Fellows or Their Equivalents Beginning 1972, the classification is changed as follows:

Class B: to Associate Professors or Associate Research Fellows or Their Equivalents

Class C: to Instructors or Lecturers or Assistant Research Fellows or Their Equivalents

Class D: to Assistant or Research Assistants or Their Equivalents

c. Program of Facilities, Equipment and Instruments

A considerable fund is earmarked for subsidizing the Government-operated universities, colleges, and research institutions to procure facilities, buildings, books, periodicals, equipment and instruments for research use. To support the research efforts of individual scholars as well as research institutes of various schools, the Science Instrumentation & Documentation Center was founded in 1968 for the collections of latest scientific and technological data from all over the world and for the compilation of joint bibliographies of science, indexes of patented items, publication of book reviews and digests of science and technology, and for the design of laboratory apparatuses and teaching aids. The funds for the program over the recent years are listed in Chart C as follows:

CHART C. Government Appropriations and U.S. Aid in Support of the Procurement of Facilities, Equipment & Instruments from FY 1958 to FY 1972

Funds FY	Government Appropriations	U.S. Aid (Unit: NT\$)
1958	740,000	22,305,472
1960	2,260,000	35,682,447
1961	2,800,000	28,723,858
1962	8,199,516	44,593,367
1963	5,064,872	19,773,181
1964	5,000,000	988,000
1965	11,400,000	
1966	13,204,745	
1967	12,640,000	
1968	13,356,442	
1969	80,500,000	
1970	45,000,000	
1971	4,411,000	
1972	9,411,000	
Total	213,987,575	152,066,325

d. National Research Professorships Program

The program was carried out from FY 1961 to FY 1968 for supporting the special projects implemented by those competent professors appointed as National Research Professors. However, the program was terminated in FY 1969 and has been integrated with the Program of Research Grants to Special Projects. The former program has been appropriated the funds as follows:

CHART D. Funds for the Program of National Research Professorships from FY 1961 to FY 1962

(Unit: NT\$)

FY	Appropriations	FY	Appropriations
1961	3,243,622	1967	1,884,000
1962	2,653,378	1968	1,884,000
1963	2,527,470		(Integrated into the Program of Research Grants to Special
1964	3,000,000	1969	of Research Grants to Special Projects)
1965	3,000,000		
1966	3,000,000	Total	21,192,470

e. Special Chairs Program

The Special Chairs are appointed to those veteran and brilliant professors with splendid achievement in their respective fields of study as an encouragement to their good work. However, it was terminated in Academic Year (AY) 1969. Before the beginning of the First Four-Year Science Development Plan, NSC appropriated the funds to this program for nine years as shown in CHART E as follows:

CHART E. Funds for Special Chairs Program from AY 1960 to AY 1968

Acadenic Year	Specialized Field of Study	Number of Special Chairs	Total	Appropriation (Unit: NT\$)
	Natural & Math. Sciences & Engineering Science	10		
1660	Biol., Agricultural & Medical Sciences	7		
	Humanities & Soc. Sciences	14	31	302,000
1001	Natural & Math. & Engineering Sciences	9		
1961	Biol., Agricul. & Med. Sciences	7 -		
	Humanities & Soc. Sciences	15	31	481,500
	Nat. & Math. & Engin. Sciences	10		
1962	Biol., Agri. & Med. Sciences	5		
	Human. & Social Sciences	14	29	520,000
	Nat. & Math. & Engin. Sciences	12		
1963	Biol., Agric., & Med. Sciences	8		·
	Human. & Social Sciences	14	34	960,000
	Nat. & Math. & Engin. Sciences	12		
1964	Biol., Agric., & Med. Sciences	8		
	Human. & Social Sciences	14	34	1,440,000
	Nat. & Math. & Engin. Sciences	13		
1965	Biol., Agric. & Medical Sciences	12		
	Human. & Social Sciences	15	40	1,920,000

CHART E. (Continued)

Acadenid Year	Specialized Field of Study	Number of Special Chairs	Total	Appropriation (Unit: NT\$)
	Nat. & Math. & Eng. Sciences	17		
1966	Biol., Agric. & Medical Sciences	20		
	Human. & Social Sciencs	15	52	2,220,000
	Nat. & Math. & Engin. Sciences	21		
1967	Biol., Agric. & Medical Sciences	19		
:	Human. & Social Sciences	13	53	2,220,000
1968	Nat. & Math. & Engin. Sciences	21 (Nat. & Math. 18, Eng. 3)		
2000	Biol, Agric. & Med. Sciences	20		
	Human. & Social Sciences	19	60	5,952,000
	Nat. & Math. & Engin. Sciences	125		
Total	Biol., Agric. & Med. Sciences	106		
	Human. & Social Sciences	133	364	16,015,500

f. National Visiting Professors Program

From 1962 to 1971 a total of 827 scholars, mostly Chinese, are invited from abroad under the National Visiting Professors Program, which is planned as an avenue to attract science talents from abroad to join in the science development work in Taiwan; besides, the scholars invited are expected to introduce new science knowledge & technology from scientifically advanced countries to the Republic of China so that we may keep up with the progress of the world. A considerable number of them, after the termination of their contracts, chose to stay on in Taiwan and became permanent faculty members of the colleges in the Republic of China. The details of the scholars invited under the National Visiting Professors Program over the years are listed as follows:

CHART F. Number of Scholars Invited Under National Visiting Professors

Program from Academic Year 1962 to AY 1971

Academic Year	Natural and Math. Sciences and Engineering Science	Biological Agricultural & Medical Sc.	Humanities & Social Sciences	Total	Appropriation (Unit: NT\$)
1962	1	2		3	U.S. Aid
1963	2	1		3	864,000
1964	13	2	1	16	1,220,000
1965	15	2	1	18	1,983,600
1966	30	10	1	41	3,967,200
1967	47	10	3	60	3,967,200
1968	57	24	13	94	7,934,400
1969	76	40	21	137	11,901,600
1970	128	54	36	218	11,901,600
1971	146	58	33	237	13,000,000
Total	515	203	109	827	56,739,600

g. Program of Fellowships for Advanced Studies Abroad

Beginning FY 1961 a Fellowship Program was introduced for both senior and junior scientists in Taiwan to take more advanced science courses abroad for one year (for senior scientists) or two (for junior scientists). All grantees are permitted to retain their full salaries and fringe benefits from their affiliated institutions. This program is planned for the purpose of bringing into Taiwan the modern science knowledge and technology urgently needed for the economic reconstruction and the promotion of science education of the country through the science scholars having gone through modern training and research experience in scientifically advanced countries for a period of time. The details of this Program are listed as follows (see CHART G).

2. Basic Science Sesearch

a. Research Centers

Five research centers were formed in 1965 as the initial step toward beefing up postgraduate training and upgrading the quality of research work in Taiwan by pooling school faculties and facilities for greater efficiency and to avoid duplication of efforts. Jointly supported by NSC and the Council for International Economic Cooperation and Development, the centers have each a sponsoring institute and one or two co-sponsoring institutes. Each of the centers is located on the premises of the sponsoring institute. However, the facilities and faculty members of the co-sponsoring institutes are also available to it. The five research centers are as follows:

- (a) Mathematics Research Center with the National Taiwan University as the sponsoring institute, and Academia Sinica and the National Tsinghua University as the co-sponsoring institutes.
- (b) Physics Research Center with the National Tsinghua University as the sponsoring institute and Academia Sinica and the National Taiwan University as the co-sponsoring institutes.
- (c) Chemistry Research Center with the National Taiwan University as the sponsoring institute and Academia Sinica as the co-sponsoring institute.
- (d) Biology Research Institute with Academia Sinica as the sponsoring institute and the National Taiwan University as the co-sponsoring institute.
- (e) Engineering Research Center with the National Chengkung University as the sponsoring institute and the National Taiwan University and the National Chiaotung University as the co-sponsoring institutes.

In addition to the above five Research Centers, an Agriculture Research Center was established in 1969 with the funds provided by NSC and the Joint Commission for Rural Reconstruction, with National Taiwan University as the sponsoring institute and National Chunghsing University and Taiwan Agricultural Research Institute as the Co-sponsoring institutes. About 800

CHART G. Fellowships Program FY 1961 to FY 1972

Artica / Eligili. & As	Biol., Agric. &	Human.	Science	ပိ	Country Where They Are Trained	ere They	Are Train	pe	Total	Appropriation
plied		Sciences	Sciences Education	ns	Eng.	Fr.	Jap.	Eur.	- orai	(Unit: NT\$)
	4	2		10		1	4		15	
	2	က		9	- Westpara		63		8	4,507,378
	9	ß		16		H	9		23	
	9	4		14	П		г	-	17	
	2	83		9	2				8	5,211,906
_	∞	9		20	က		-	H	25	
	7	9		10	1	-	-		13	
	9		***************************************	9		1	က	1	11	5,014,958
	8	9		16		2	4	П	24	
	4	2		7			4		12	
	က	7		8			က	H	13	6,044,530
	7	4		15	н		2	2	25	
	9	-		10			က		13	
		ນ		10			7		12	6,044,530
	7	9		70			S		22	
-	9	4		12	H		1	1	15	
	ო	4		12	-				13	6,276,826
_	6	80		24	2		-		28	
·	2	4		8	П		4		13	
	4	က		6	87		П	1	13	6,653,584
	с ъ	7		17	က		2		56	

CHART G. (Continued)

Human, Science & Soc. Sciences Education
22
4
5
7

4
7
11

Remarks: (1) Class A for Professors, Associate Professors and their Equivalents: Permitted Stay Abroad for one year.

(2) Class B for Instructors, Lecturers, Assistants and Their Equivalents: for two years.
(3) Abbreviations: US=United States of America. Eng.=England. Fr.=France. Jap.=Japan. Eur.=Europe (Including West Germany, Netherlands, Canada, and Australia). Nat. & Math. Sciences=Natural and Mathematical Sciences. Engin. & Applied Sc = Engineering and Applied Sciences (The above two divisions are combined from 1961 to 1967 & separated since 1968). Biol., Agric. & Med. Sc. = Biological, Agricultural and Medical Sciences. Human. & Soc. Sciences = Humanities and Social Sciences. graduate students have been awarded the M.S. degrees at these centers while some Ph. D. degrees in natural sciences were awarded by home institutes for the first time in 1970.

Total NSC support for the research centers amount to between NT\$-50,000,000 and NT\$60,000,000 annually. With construction needs and equipment largely satisfied, grants to the centers have been shifted from an institutional basis to a project basis.

b. Major Programs in Applied Science and Technology

(1) Industrial Research and Development

Efforts on industrial research and new products development are primarily the function of a number of government research labs under the Ministry of Economic Affairs. The Science Fund, however, plays a catalyst role in this area by selectively supporting on-going projects as well as to help seeding new projects. Industrial R & D projects completed and presently still under NSC support include energy resources development, mining and metallurgy, steel-making, polymer processing, ceramics, food processing, textile and electronic technology, and management science.

Beginning from 1969, as the government launched the first of three four-year science development plans, the Fund used in regard to industrial research and development amounted to the equivalent of US\$28 million, about 0.75% of GNP, including about US\$25 million from the Ministry of Economic Affairs and over \$2 million from the Science Fund. Funds granted to the Engineering Research Center and for more basic studies are not included.

(2) Studies of Electronics

NSC's support of the Studies of Electronics is primarily purported to boost the present and the future development of the electronics industry in Taiwan, which has grown from the very small scale electronics assembling industry before 1960 to an export of the electronics products amounting to US\$180,000,000 in 1970 and further grown to that export amounting to US\$300,000,000 in 1971. As the total capital investment has grown to US\$250,000,000, a closer cooperation between the industry and research institutes appears urgent and absolutely necessary.

In order to promote the electronics research for industrial application, NSC appropriated from FY 1969 to FY 1971 a total of NT\$15,000,000 (not including the NT\$9,778,000 to support the electronics research in the Engineering Research Center) to finance research on semi-conductors, hardware and software of computer systems, electromagnetic wave and electronic communication systems. The projects were carried out at the National Taiwan University, National Chiaotung University and National Chengkang University.

(3) Experiments with Ship Model Basin

A Ship Hydrodynamics Laboratory was inaugurated at the National Taiwan University in 1970 with the support of funds from NSC for the purpose of carrying out research and training activities on naval architecture to meet the needs of Taiwan's young shipbuilding industry. The scope of its research activities cover the following areas: (a) Ship model test; (b) Ship hydrodynamics; (c) Primary ship designs; and (d) other aspects of naval architecture. For achieving the purported activities, the Laboratory is equipped with sea-keeping and maneuvering tanks, water circulation channel, wave generator and related instrumentations.

(4) Oceanography

Approximately NT\$ 70,000,000 has been appropriated by NSC for the study of oceanography over the past four years. Its breakdown is roughly as follows:

- (a) NT\$12,000,000 for the installation of laboratories.
- (b) NT\$18,000,000 for refitting a research vessel named Chiu Lien (secured from the U.S. on loan).
- (c) NT\$28,000,000 for equipping the vessel with up-to-date geophysical instruments and facilities for physical and chemical oceanographic research as well as marine and fishery research facilities.
- (d) More than NT\$5,000,000 for procurement of books, periodicals and reference materials and instruments.

The emphasis of oceanographic research efforts is placed upon marine geology, ocean currents and upwelling phenomena, algae and plankton distribution, fish ecology and fishery biology, and coral reefs in waters around Taiwan.

To implement the multiple purposes of the program, an Institute of Oceanography was established at the National Taiwan University on August 1, 1968. Besides tackling the projects as stated above, the Institute also participates in the international cooperative oceanographic research of the South China Sea and other areas with neighboring countries.

(5) Seismology

An Earthquake Research Project introduced and organized in 1970 with the task to complete the installation of a modern seisomological monitory network in Taiwan by the end of 1972 with the computerized data processing through telemetering. The installation of the telemetered monitoring system in Taiwan and its outlaying islands, NT\$ 20,000,000 was appropriated by NSC in its FY 1971 budget. In the next five years a pertinent program has been adopted for sending young scientists to the U.S. and Japan for advanced studies

and training in seismology, earthquake engineering, and the related fields so as to enable them to tackle much of the sophisticated operation of the system. Projects are now also under way for detailed analysis for data acquired by strong-motion seismographs at major propulation centers and engineering sites with a view to devising more relevant building codes and structural standards.

(6) Atmospheric Research

Since Taiwan is located on the path of typhoon formed in the northwestern Pacific, damage and loss caused by typhoon were trememdous.

In FY 1971, NSC initiated the program for Typhoon Research aiming at the exploration of a better preventive measures to minimize the losses to the lowest possible.

The program is carrying out by the National Central University. The Institute of Physics of Academia Sinica, and the Department of Geography of the National Taiwan University, etc..

In addition, a Sino-American Seminar on Typhoon was held in the United States in 1971 for exchange of technical information which is helpful to the research program.

Besides, to cope with the economic development, NSC has also launched or assisted a number of research program on applied science in Material Science Chemical Industry, Textile Food Processing, Farm Machinery and other agricultural projects.

(7) Agricultural Research

Agricultural research activities being carried out in Taiwan include crop science, animal husbandary, marine and fishery produsts, forestry and agricultual engineering.

Due to the rapid industrialization and the decreasing of the cultivated land, recent research efforts are therefore channeled to the breeding of nutrition-rich, high yield and disease-resistant varieties in crop such as rice, corn and sweet-potato.

Since 1970, about US\$ 2.24 million has been distributed to JCRR for the support of the most field experiments. US\$ 400,000 for the Asian Vegetable Research and Development Center for the development of new vegetable varieties.

(8) Medical Research Program

Efforts on medical research are primarily on anti-cancer drugs of plant origin, local diseases, reproductive physiology, nutrition, and acupuncture.

Since 1970, an amount equivalent to US\$1.7 million fund has been distributed to the following institutes for carrying out above researches:

College of Medicine, National Taiwan University

National Defense Medical Center

Public Health Administration, Executive Yuan

Taiwan Provincial Health Department

Several Sino-America cooperative programs have also been carried out in both two countries. Since 1966, the University of Wisconsin and the Cancer Institute have been working with the Taiwan's institutes in search of anticancer drugs.

III. SINO-AMERICAN COOPERATION IN SCIENCE

A. Objectives

International science cooperation has played an important role in Taiwan's science development right from its beginning. The achievements made in the past decade, though modest in absolute terms yet significant in starting an autocatalytic process, owed substantially to diverse international exchange programs and joint research ventures, particularly the large number of programs with the United States.

For the purposes of cultivating the foundation for science technological development, of introducing new scientific technology to the Republic of China and strengthening international ties of various research institutes, the Republic of China has inaugurated several international cooperation programs with Japan, Korea, and other Asian countries. Nevertheless, Sino-American cooperation in science has grown more and more important as more and more exchange programs have been implemented and they have benefited the country in its science development more greatly than any other international cooperation programs.

B. U.S.-China Cooperative Science Program

As Sino-American cooperation in science gained momentum, an exchange of notes between the two countries took place on January 23, 1969, inaugurating a comprehensive new framework for bilateral cooperation known as the US-China Cooperative Science Program. The U.S. National Science Foundation and the Chinese National Science Council were designated to be joint implementing agencies. Four types of cooperative activities have been sponsored by the implementing agencies as follows:

- 1. Short-term exchange of scientists, with the objective in widening the contacts between the two scientific coummunities.
- 2. Long-term exchange of scientists, with the objective primarily of enabling scientists of one country to do research in another with host investigators sharing the same interest.
- 3. Cooperative research projects, which differ from long-term exchanges in that interested scientists of the two countries usually work on different aspects of the same problem separately but are enabled to visit each other by the implementing agencies.
- 4. Bi-national seminars, designed not only to increase interaction between U.S. and Chinese scientists on a group basis, but also to generate new interest in cooperative research.

C. Direct and Indirect Achievements of the Cooperation Program

Though it takes much longer time to judge the achievements of the U.S.-China Cooperative Science Program, yet the influences have begun to be felt here in Taiwan. According to the First Status Report jointly prepared in 1972 by the two implementing agencies stated above on its preliminary evaluation of the program activities it has listed the following direct and indirect achievements of the Program:

- 1. The Program has stimulated Taiwan's graduate program and advanced research.
- 2. The bilateral exchange of visit has achieved the objective of widening contacts between the two scientific communities.
- 3. The visit of U.S. scientists to Taiwan has made it possible for their hosts to benefit directly from the visitors' experience and expertise in planning of Taiwan's scientific research.
- 4. Their visit also helps to introduce new science and technology into the Republic of China.
- 5. The exchange of visits under the Program has served to better the science education in Taiwan.

In order to better serve the interests and needs of the two scientific communities, the implementing agencies have been in close consultation to review priority areas of interest and to revamp the modes of implementation.

IV. OTHER INTERNATIONAL SCIENCE COOPERATIVE PROGRAMS

Both before and after the forced withdrawal of the Republic of China's United Nations membership, and consequently the abrupt termination in Taiwan of nearly all the scientific and technological programs under the auspices of the U.N. in Taiwan, the Republic of China has spared no efforts in seeking for bilateral arrangements connecting Taiwan's scientists with the world scientific community, most notably with the Republic of Korea, Republic of Vietnam, Australia, Thailand, and Japan, in addition to the ties with the U.S. as stated above. The Chinese Government, fully aware of the intimate relationship between U.N. technological programs (under UNDP and with the assistance of UNESCO, WHO, WMO, UNIDO, etc. with a total annual budget in excess of US\$2,000,000) and our economic development needs, has actively studied the situation and formulated contingency plans to carry on selectively the aborted U.N. programs. Being deprived of the assistance of U.N. affiliated organizations and UN Specialized agencies in technological planning and pilot-plant development, we have done our best to substitute effective bilateral or regional arrangements for the assistance of U.N. agencies. Therefore, more frequent contacts with the scientific communities of all friendly nations are maintained, and from time to time joint ventures of research cooperation have been made, of which the NSC has played an important part.

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	2.	National Taiwan University 國立臺灣大學
	3.	National Chengchi University 國立政治大學
	4.	National Tsinghua University 國立清華大學
	5.	National Chiaotung University 國立交通大學
	6.	National Chungyang University 國立中央大學
	7.	National Taiwan Normal University 國立臺灣師範大學
	8.	National Chengkung University 國立成功大學
	9.	National Chunghsing University 國立中與大學
	10.	Chungcheng College of Sciences and Engineering 中正理工學院
	11.	Chinese Air Force Academy 空軍軍官學校
	12.	Air Communication & Electronics School, Chinese Air Force 空軍通信電子
		學校
	13.	Fujen University 私立輔仁大學
	14.	Tunghai University 私立東海大學
	15.	Tamkang College of Arts & Sciences 私立淡江文理學院
	16.	Chung Yuan Christian College of Science and Engineering 私立中原理工
		學院
	17.	Taipei Medical College 私立臺北醫學院
	18.	Tatung Institute of Technology 私立大同工學院
		College of Chinese Culture 私立中國文化學院
	20.	Provincial Taipei Institute of Technology 省立臺北工業專科學校
		Provincial Pingtung Junior College of Agriculture 省立屏東農業專科學校
		Ming Hsing Junior College of Technology 私立明新工業專科學校
		Tajen Junior College of Pharmacology 私立大仁藥學專科學校
		Tamsui Oxford Junior College 私立淡水工商管理專科學校
		Taiwan Sugar Experiment Station 臺糖公司糖業試驗所
		Taiwan Provincial Institute of Geological Survey 臺灣地質調査所
		Central Weather Bureau 中央氣象局
		Taiwan Fishery Research Institute 臺灣省水產試驗所
		Taiwan Provincial Hygienic Laboratory 臺灣省環境衞生試驗所
	30.	Taiwan Livestock Research Institute 臺灣畜產試驗所

31. Taiwan Fertilizer Company 臺灣肥料公司32. Chinese Petroleum Corporation 中國石油公司

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33.	Chiayee Solvent Works, Chinese Petroleum Corporation 中國石油公司嘉義 溶劑廠
34.	Bureau of Commodity Inspection & Quarantine, Ministry of Economic Affairs 經濟部商品檢驗局
35.	Mining Research & Service Organization, MOEA 經濟部聯合擴業研究所
	Union Industrial Research Institute, MOEA 經濟部聯合工業研究所
37.	Chinese Air Force, Weather Central 空軍氣象中心
RIC	DLOGICAL, AGRICULTURAL AND MEDICAL SCIENCES
	为及醫農科學
	Academia Sinica 中央研究院
	National Taiwan University 國立臺灣大學
	National Taiwan Normal University 國立臺灣師範大學
	National Chunghsing University 國立中興大學
	National Defense Medical Center 國防醫學院
6.	Tunghai University 私立東海大學
7.	Kaohsiung Medical College 私立高雄醫學院
8.	Taipei Medical College 私立臺北醫學院
9.	Provincial Chiayi Junior College of Agriculture 省立嘉義農業專科學校
10.	Provincial Pingtung Junior College of Agriculture 省立屛東農業專科學校
11.	Provincial Hsinchu Junior College of Agriculture 省立新竹農業專科學校
12.	Chungshan Medical and Dental Junior College 私立中山醫學專科學校
13.	Taiwan Sugar Experiment Station 臺糖公司糖業試驗所
14.	Taiwan Agricultural Research Institute 臺灣省農業試驗所
15.	Taiwan Forestry Research Institute 臺灣省林樂試驗所
16.	Wines Research Institute 臺灣省菸酒公賣局酒類試驗所
17.	Tobacco Research Institute 臺灣省菸酒公賣局菸葉試驗所
18.	Taiwan Fishery Research Institute 臺灣省水產試驗所
	Kaohsiung District Agricultural Improvement Station 高雄區農業改良場
20.	Tainan District Agricultural Improvement Station 臺南區農業改良場
21.	Taichung District Agricultural Improvement Station 臺中區農業改良場
22.	Taiwan Seed Service, Provincial Dept. of Agriculture and Forestry 農林
	廳種苗繁殖場
23.	Taiwan Tea Experiment Station 臺灣省茶葉改良場
24.	Provincial Research Institute for Animal Health 臺灣家畜衛生試驗所
2 5.	Taiwan Livestock Research Institute 臺灣省畜產試驗所
26 .	Yangmei Branch Station, Taiwan Livestock Research Institute 臺灣省畜
	產試驗所楊梅分所
27.	Taiwan Fertilizer Company 臺灣肥料公司
	Taiwan Serum Vaccine Laboratory 臺灣省血清疫苗製造所
29.	Provincial Maternal & Child Health Institute 臺灣省婦幼衞生研究所
30	Chiavee Solvent Works Chinese Patroleum Corporation 中國天社公司實業

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31.	Bureau of Commodity Inspection and Quarantine 經濟部商品檢驗局
32.	The Institute of Fishery Biology, (Jointly Sponsored by) Ministry of
	Economic Affairs & National Taiwan University 經濟部與國立臺灣大學合
	辨漁業生物試驗所
33.	Chiayi Agricultural Experiment Station, Taiwan Agricultural Research
	Institute 農業試驗所嘉義分所
34.	Tainan Fiber Crops Experiment Station, Taiwan Agricultural Research
	Institute 農業試驗所臺南棉麻檢驗分所
35.	Taipei District Agricultural Improvement Station 臺灣省臺北區農業改良場
36.	Provincial Taiwan Tuberculosis Control Bureau 臺灣省防癆局
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5.	National Chungyang University 國立中央大學
6.	National Taiwan Normal University 國立臺灣師範大學
7.	National Chengkung University 國立成功大學
8.	National Chunghsing University 國立中興大學
9.	Provincial College of Marine and Oceanic Technology 省立海洋學院
10.	Chungcheng College of Science and Engineering 中正理工學院
11.	Chinese Army Academy 陸軍軍官學校
12.	Chinese Air Force Academy 空軍軍官學校
	Fujen University 私立輔仁大學
14.	Tunghai University 私立東海大學
15.	Tamkang College of Arts and Sciences 私立淡江文理學院
	Tatung Institute of Technology 私立大同工學院
	National Taiwan Junior College of Fine Arts 國立臺灣藝術專科學校
	Provincial Taipei Institute of Technology 省立臺北工業專科學校
	Provincial Kaohsiung Institute of Technology 省立高雄工業專科學校
	Radio Administration, Ministry of Communications 交通部國際電訊局
	Atomic Energy Council, Executive Yuan 行政院原子能委員會
	Taiwan Sugar Experiment Station 臺糖公司糖業試驗所
	Taiwan Forestry Research Institute 臺灣省林業試驗所
24.	Aeronautical Research Laboratory, Aero-Industry Development Center
	空軍航空工業發展中心
25.	Wines Research Institute, Taiwan Tobacco & Wine Monopoly Bureau
	臺灣省菸酒公賣局酒類試驗所

C.

- 27. Chinese Petroleum Corporation 中國石油公司
- 28. Chiayee Solvent Works, Chinese Petroleum Corporation 中國石油公司嘉 義溶劑廠

26. Taiwan Institute of Environmental Sanitation 臺灣省環境衞生試驗所

Π.

		Bureau of Commodity Inspection and Quarantine 經濟部商品檢驗局
		Union Industrial Research Institute 經濟部聯合工業研究所
	31.	0000 HP 32/80 NO 170//
	3Z.	Telecommunication Laboratories, Ministry of Communications 交通部電
	00	信總局電話研究所
		Taiwan Freeway Construction Bureau 高速公路工程局
		Water Resources Planning Commission 經濟部水資源委員會
	35.	THE MANY // !
		Taiwan Water Conservancy Bureau 臺灣省水利局
	37.	Taiwan Shipbuilding Corporation 臺灣造船公司
D.	HU	MANITIES AND SOCIAL SCIENCES 人文及社會科學
	1.	Academia Sinica 中央研究院
	2.	National Taiwan University 國立臺灣大學
	3.	National Chengchi University 國立政治大學
	4.	National Taiwan Normal University 國立臺灣師範大學
	5.	National Chengkung University 國立成功大學
	6.	National Chunghsing University 國立中與大學
	7.	Provincial College of Marine and Oceanic Technology 臺灣省立海洋學院
	8.	Chinese Air Force Academy 空軍軍官學校
	9.	Chinese Navy Academy 海軍軍官學校
	10.	National Defense Medical Center 國防醫學院
	11.	Political Warfare College 政治作戰學校
	12.	Fujen University 私立輔仁大學
	13.	Tunghai University 私立東海大學
	14.	Soochow University 私立東吳大學
	15.	College of Chinese Culture 私立中國文化學院
	16.	Central Police College 中央警官學校
	17.	Taiwan Provincial Pingtung Junior College of Agriculture 省立屏東農業 專科學校
	18.	Taiwan Provincial Hualien Junior College for Teachers 省立花蓮師範專科
		學校
	19.	Taiwan Provincial Junior College of Nursing 省立護理專科學校
	20.	Taiwan Provincial Pingtung Junior College for Teachers 省立屛東師範專
		科學校
	21.	Taiwan Sugar Experiment Station 臺糖公司糖業試驗所
RE	CIPI	ENTS OF SEMI-ANNUAL RESEARCH GRANTS 半年研究補助費
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The 1972 National Science Council (NSC) Review covers the period from July 1971 to June 1972. Since it represents the termination of the First Four-Year Science Development Plan, it is high time for us to make a summarized report of the progress of various projects undertaken and achieved by NSC.

I. LONG-RANGE SCIENCE DEVELOPMENT PLANS

In response to the present and the future needs of the country, the Government of the Republic of China established in 1967 a Committee for Science Development under the National Security Council. In its capacity as an advisory unit to the President in the matter of science, the Committee has become the highest agency for policy making and resource allocation pertaining to the development of science and technology in the country. At the recommendation of the Committee, the National Council for Science Development (NCSD) was reorganized into the present National Science Council (NSC) as an independent agency under the Executive Yuan, entrusted to manage its budget as the National Science Fund, and to coordinate the implementation of scientific and technological activities of all Government agencies.

In the autumn of 1968, in pursuance of the instruction entitled "Important Responsibilities of Committee for Science Development" given by President Chiang Kai-shek, a sequence of three Four-Year Science Development Plans was mapped out for the purpose of meeting the science requirements of of the educational, industrial, agricultural and social development of the country. The master program emphasizes three major directions as follows:

- 1. Science Education—the strengthening of science education in the entire education system from the elementary school up.
- 2. Science Research—the stepping up of science research both in pure and in applied sciences as well as humanities and social sciences.
- 3. Coordination between Economic Reconstruction and Scientific and Technological Development—the bridging of the gap between the academic institutions and the practical application as required in such areas as industry, agriculture, communications, medicine, and public health.

These tasks are designed to achieve two basic objectives: namely, the training of an adequate scientific and technological manpower to attain a measure of academic independence, and the carrying out of research and development in certain scientific and technological fields to meet the nation's urgent and future needs of knowhow for economic and social developments.

The First Four-Year Science Development Plan started in FY 1969 and the annual science fund dramatically grew, for example, from a mere sum of NT\$ 30,000,000, of the first annual science development fund for 1959-60 to NT\$ 320,000,000 for FY 1969, which represents a 1,000% increase of the fund from the first allocation nine years ago. The fund has further increased to NT\$ 420,000,000 for the FY 1972, which again

registers an increase of 25% over that of the FY 1969. (The exchange rate at that period was US\$1 to NT\$40).

For the convenience of reference a chart to summarize and itemize the distribution of the Science Development Fund will be useful. The breakdown of the actual appropriation is listed as follows (See Chart A):

CHART A. Itemized Allocation of Science Development Fund for the First Science Development Plan FY 1969 to FY 1972

(Unit: NT\$1,000)

Article	Item	Section	Description	FY 1969	FY 1970	FY 1971	FY 1972
I.			Science Education and Cultivation of Scientific and Technological Manpower	87,849	132,619	113,937	128,020
	A.		Science Education	200	-		4,000
	В.		Translation of Well-known Science Books and Revision of Science Textbooks for Colleges & Universities	5,140	5,140	1,720	1,720
	c.		Research Grants to Individual Scholars	20,840	20,844	20,844	42,000
	D.		Contracted Professors	18,873	41,902	26,745	13,000
		1.	Visiting Professors from Overseas	5,488	11,902	11,902	13,000
		2.	Special Chairs	3,413	_	-	
		3.	National Research Professors	9,972	30,000	14,843	
	Ε.		Employment of Specialists from Over- seas for Special Consultations	3,520	3,920	3,520	1,250
	F.		Fellowships for Advanced Studies Abroad	31,278	50,000	50,000	50,000
	G.		Manpower Surveys & Special Education	600	_	600	_
	н.	1222	Scholarships for Science Graduate Students	2,478	3,313	3,708	_
	I.		Training of Science Admin. Personnel	720	2,500	2,800	2,800
	J.	_	Science Instrumentation & Documention Center	4,200	5,000	4,000	13,250
п.			Basic Science Research	72,868	95,000	85,884	72,411
	Α.	1	Special Subsidies for Academia Sinica	6,657		13,473	
	в.		Supporting Funds for 5 Research Centers of Academia Sinica	19,811	50,000	65,000	50,000
	c.	İ	Research in Biochemistry	1			8,000
	D.		Research Facilities, Equipment, and Instruments for Special Projects	46,400	45,000	74,115	14,411
		1.	Books & Instruments	42,000	39,900	7,411	9,411
		2.	Buildings (including Scholars' Quarters)	4,400	5,100	-	5,000

CHART A. (continued)

Article	Item	Section	Description	FY 1969	FY 1970	FY 1971	FY 1972
ш.			Humanities & Social Social Sciences	6,906	7,500	7,700	15,000
w.			Industrial Research & Applied Science Studies.	62,121	69,500	85,485	155,400
	Α.		Industrial Research	26,500	18,500	20,600	20,600
		1.	Eneagy Resources Research for In- dustrial Development	16,000	10,450	3,000	4,000
		2.	Mining Research for Industrial Development	6,640	5,550	3,600	2,600
		3.	Steel Industrial Research	3,000	2,500	3,000	3,000
		4.	Industrial & Research Complex	860		11,000	11,000
	В.		Studies of Earth Sciences		750	1,125	2,000
	c.		Oceanographical Studies	12,797	10,000	17,860	28,000
	D.		Ship Model Experiments Laboratory	5,500	5,250	2,500	2,500
	Ε.		Electronics Research	3,000	5,000	7, 500	7,500
	F.		Earthquake Research	_			15,000
	G.		Material Sciences & Industrial Chemistry Technology	-	-	-	12,500
	н.		Textile, Food, & Electronics Industry			_	15,000
	Ι.		Agricultural Research	8,324	20,000	24,000	30,000
	J .		Communications Research	1,500	4,500	5,900	7,300
	к.		Atmospheric Sciences (including Mete- orology & Typhoon Studies)	4,500	5,500	6,000	15,000
v.			Research of Application of Atomic Energy for Practical Uses	_		1,950	2,500
vī.			Medical & Public Health Research	7,000	20,000	3,000	18,000
VII.			Promotion of Science Development & Miscellaneous Studies	10,094	7,965	10,309	32,080
 	Α.		Subsidies for Academic School Publications	1,166	1,124	1,000	1,000
	в.		International (Mainly Sino-US) Science Cooperations	1,800	-		15,000
	c.		Screening of Academic Research Papers & Editing & Publication of Reports	1,239	1,600	1,670	1,700
	D.		Science Seminars	1,000	1,500	1,385	1,700
	E.		Administrative Management	4,289	3,141	5,654	12,080
,	F.		Support for Liaison Activities of Committee for Science Development	600	600	600	600

CHART A. (continued)

Article	Item	Section	Description	FY 1969	FY 1970	FY 1971	FY 1972
VIII.			Accumulated Reserve	54,867	29,081	10,835	5,015
	A.		Appropriation from Central Government	54,867	6,808	10,835	5,015
	В.		Contribution from Taiwan Prov. Gov't.	_	400	_	_
			TOTAL	301,705	351,665	324,100	428,406

II. THE PROGRESS OF THE FIRST FOUR-YEAR SCIENCE DEVELOPMENT PLAN

A. Objectives

The three objectives of the First Four-Year Science Development Plan, as has been stated above, are: 1. strengthening of science education in general; 2. cultivation of science research manpower; and 3. coordination between economic reconstruction and scientific and technological developments. These objectives are in effect pegged to the requirement of the current educational, industrial, agricultural and social developments of the nation as a whole. The coordination, for the purpose of better achievement of the objectives of NSC, is broadened to cover the assistance and support from various other government agencies such as Ministry of Education, Ministry of Economic Affairs, Joint Commission for Rural Reconstruction, Ministry of Communications, Ministry of National Defense, etc..

B. Summary of the Progress of Various NSC Programs

1. Science Education Programs

a. Assistance to Science Education

The science fund is used to support the research on the curricula, text-books, and teaching method for science education at all levels of schools, compilation and publication of undergraduate and graduate reference books and other materials, and the cultivation of science teachers of all school levels.

b. Program of Individual Research Grants

An increasing number of research grants, expanded from 244 grants in 1960 to 776 in 1969, and further increased to 1,292 grants in 1972, have been awarded by NSC annually to university and college faculty members as well as scientists in public research institutions. This program substantially helps to keep scientists of the Republic of China better provided in their livelihood as each grant carries a stipend roughly equivalent to the teacher's or the researcher's regular salary. Being better provided financially, the scientists naturally find it easier to devote their full time to his research and teaching duties.

Chart B will show the number of scholars awarded such a grant and the total sum of NSC expenditure in this respect:

CHART B. Number of Science Scholars Awarded Individual Research Grants and NSC Appropriation for the Grants from FY 1960 to FY 1972

		4	4							ļ				
Classification	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	Total Number of Science Scholars
a. Natural & Math. & Engi- neering											. ,			
(1) Class A	49	62	66	94	111	115	135	174	144	156	165	156	185	1,662
(2) Class B	46	29	102	75	68	28	35	120	130	117	128	145	116	1,314
(3) Class C											30	82	162	250
(4) Class D			-										71	71
Total	- 95	146	201	169	200	199	230	294	274	273	223	329	534	3,297
b. Biological Agricultural, & Medical Sciences														
(1) Class A	52	83	105	116	127	114	144	132	123	137	141	139	126	1,538
(2) Class B	26	99	105	114	110	100	74	133	128	140	109	107	22	1,289
(3) Class C											22	28	157	298
(4) Class D							•						93	93
Total	78	148	210	230	237	214	218	265	251	277	307	330	453	3,218
c. Humanities & Scial Sciences		-												
(1) Class A	45	64	83	100	105	118	140	157	133	140	152	157	136	1,530
(2) Class B	26	32	39	29	29	62	94	28	104	98	92	7.1	25	904
(3) Class C											23	20	69	112
(4) Class D													16	16
Total	17	96	122	159	172	197	234	244	237	526	251	248	305	2,562

CHART B. (continued)

										-				1000
Classification	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	Number of Science Scholars
Total of										-		Ç		002.7
(1) Class A	146	225	287	310	343	347	419	463	400	433	458	707	774	4,790
(2) Class B	86	165	346	248	266	263	263	340	362	343	313	323	277	3,507
(2) Crass (2)	3										110	162	388	099
(S) Class C													180	180
(4) Class D		Ö	c C	D L	000	610	689	803	762	922	881	937	1,292	9,077
Total	744	390	553	900	600	OTO	700	3			}			
Appropriation														
	3,698.4	5,521.2	7,627.2	8,227	11,040	11,040	13,824	15,120	15,120	20,840	20,844	20,844	42,000	, :
	-											Grand Total:	Total:	195,746

Remarks: From 1960 to 1971 Class A is awarded to professors and Associate Professors or Research Fellows and Associate Research Fellows Class B to Instructors and Lecturers or Assistant Research Fellows

Class C to Assistants or Research Assistants

The classification to non-academic institutions is given to the equivalents.

Class A: to Professors or Research Fellows or Their Equivalents Beginning 1972, the classification is changed as follows:

Class B: to Associate Professors or Associate Research Fellows or Their Equivalents

Class C: to Instructors or Lecturers or Assistant Research Fellows or Their Equivalents

Class D: to Assistant or Research Assistants or Their Equivalents

c. Program of Facilities, Equipment and Instruments

A considerable fund is earmarked for subsidizing the Government-operated universities, colleges, and research institutions to procure facilities, buildings, books, periodicals, equipment and instruments for research use. To support the research efforts of individual scholars as well as research institutes of various schools, the Science Instrumentation & Documentation Center was founded in 1968 for the collections of latest scientific and technological data from all over the world and for the compilation of joint bibliographies of science, indexes of patented items, publication of book reviews and digests of science and technology, and for the design of laboratory apparatuses and teaching aids. The funds for the program over the recent years are listed in Chart C as follows:

CHART C. Government Appropriations and U.S. Aid in Support of the Procurement of Facilities, Equipment & Instruments from FY 1958 to FY 1972

Funds FY	Government Appropriations	U.S. Aid (Unit: NT\$)
1958	740,000	22,305,472
1960	2,260,000	35,682,447
1961	2,800,000	28,723,858
1962	8,199,516	44,593,367
1963	5,064,872	19,773,181
1964	5,000,000	988,000
1965	11,400,000	
1966	13,204,745	
1967	12,640,000	
1968	13,356,442	
1969	80,500,000	
1970	45,000,000	
1971	4,411,000	
1972	9,411,000	
Total	213,987,575	152,066,325

d. National Research Professorships Program

The program was carried out from FY 1961 to FY 1968 for supporting the special projects implemented by those competent professors appointed as National Research Professors. However, the program was terminated in FY 1969 and has been integrated with the Program of Research Grants to Special Projects. The former program has been appropriated the funds as follows:

CHART D. Funds for the Program of National Research Professorships from FY 1961 to FY 1962

(Unit: NT\$)

FY	Appropriations	FY	Appropriations
1961	3,243,622	1967	1,884,000
1962	2,653,378	1968	1,884,000
1963	2,527,470		(Integrated into the Program of Research Grants to Special
1964	3,000,000	1969	of Research Grants to Special Projects)
1965	3,000,000		
1966	3,000,000	Total	21,192,470

e. Special Chairs Program

The Special Chairs are appointed to those veteran and brilliant professors with splendid achievement in their respective fields of study as an encouragement to their good work. However, it was terminated in Academic Year (AY) 1969. Before the beginning of the First Four-Year Science Development Plan, NSC appropriated the funds to this program for nine years as shown in CHART E as follows:

CHART E. Funds for Special Chairs Program from AY 1960 to AY 1968

Acadenic Year	Specialized Field of Study	Number of Special Chairs	Total	Appropriation (Unit: NT\$)
	Natural & Math. Sciences & Engineering Science	10		
1660	Biol., Agricultural & Medical Sciences	7		
	Humanities & Soc. Sciences	14	31	302,000
1001	Natural & Math. & Engineering Sciences	9		
1961	Biol., Agricul. & Med. Sciences	7 -		
	Humanities & Soc. Sciences	15	31	481,500
	Nat. & Math. & Engin. Sciences	10		
1962	Biol., Agri. & Med. Sciences	5		
	Human. & Social Sciences	14	29	520,000
	Nat. & Math. & Engin. Sciences	12		
1963	Biol., Agric., & Med. Sciences	8		·
	Human. & Social Sciences	14	34	960,000
	Nat. & Math. & Engin. Sciences	12		
1964	Biol., Agric., & Med. Sciences	8		
	Human. & Social Sciences	14	34	1,440,000
	Nat. & Math. & Engin. Sciences	13		
1965	Biol., Agric. & Medical Sciences	12		
	Human. & Social Sciences	15	40	1,920,000

CHART E. (Continued)

Acadenid Year	Specialized Field of Study	Number of Special Chairs	Total	Appropriation (Unit: NT\$)
	Nat. & Math. & Eng. Sciences	17		
1966	Biol., Agric. & Medical Sciences	20		
	Human. & Social Sciencs	15	52	2,220,000
_	Nat. & Math. & Engin. Sciences	21		
1967	Biol., Agric. & Medical Sciences	19		
:	Human. & Social Sciences	13	53	2,220,000
1968	Nat. & Math. & Engin. Sciences	21 (Nat. & Math. 18, Eng. 3)		
	Biol, Agric. & Med. Sciences	20		
	Human. & Social Sciences	19	60	5,952,000
	Nat. & Math. & Engin. Sciences	125		
Total	Biol., Agric. & Med. Sciences	106		!
	Human. & Social Sciences	133	364	16,015,500

f. National Visiting Professors Program

From 1962 to 1971 a total of 827 scholars, mostly Chinese, are invited from abroad under the National Visiting Professors Program, which is planned as an avenue to attract science talents from abroad to join in the science development work in Taiwan; besides, the scholars invited are expected to introduce new science knowledge & technology from scientifically advanced countries to the Republic of China so that we may keep up with the progress of the world. A considerable number of them, after the termination of their contracts, chose to stay on in Taiwan and became permanent faculty members of the colleges in the Republic of China. The details of the scholars invited under the National Visiting Professors Program over the years are listed as follows:

CHART F. Number of Scholars Invited Under National Visiting Professors

Program from Academic Year 1962 to AY 1971

Academic Year	Natural and Math. Sciences and Engineering Science	Biological Agricultural & Medical Sc.	Humanities & Social Sciences	Total	Appropriation (Unit: NT\$)
1962	1	2		3	U.S. Aid
1963	2	1		3	864,000
1964	13	2	1	16	1,220,000
1965	15	2	1	18	1,983,600
1966	30	10	1	41	3,967,200
1967	47	10	3	60	3,967,200
1968	57	24	13	94	7,934,400
1969	76	40	21	137	11,901,600
1970	128	54	36	218	11,901,600
1971	146	58	33	237	13,000,000
Total	515	203	109	827	56,739,600

g. Program of Fellowships for Advanced Studies Abroad

Beginning FY 1961 a Fellowship Program was introduced for both senior and junior scientists in Taiwan to take more advanced science courses abroad for one year (for senior scientists) or two (for junior scientists). All grantees are permitted to retain their full salaries and fringe benefits from their affiliated institutions. This program is planned for the purpose of bringing into Taiwan the modern science knowledge and technology urgently needed for the economic reconstruction and the promotion of science education of the country through the science scholars having gone through modern training and research experience in scientifically advanced countries for a period of time. The details of this Program are listed as follows (see CHART G).

2. Basic Science Sesearch

a. Research Centers

Five research centers were formed in 1965 as the initial step toward beefing up postgraduate training and upgrading the quality of research work in Taiwan by pooling school faculties and facilities for greater efficiency and to avoid duplication of efforts. Jointly supported by NSC and the Council for International Economic Cooperation and Development, the centers have each a sponsoring institute and one or two co-sponsoring institutes. Each of the centers is located on the premises of the sponsoring institute. However, the facilities and faculty members of the co-sponsoring institutes are also available to it. The five research centers are as follows:

- (a) Mathematics Research Center with the National Taiwan University as the sponsoring institute, and Academia Sinica and the National Tsinghua University as the co-sponsoring institutes.
- (b) Physics Research Center with the National Tsinghua University as the sponsoring institute and Academia Sinica and the National Taiwan University as the co-sponsoring institutes.
- (c) Chemistry Research Center with the National Taiwan University as the sponsoring institute and Academia Sinica as the co-sponsoring institute.
- (d) Biology Research Institute with Academia Sinica as the sponsoring institute and the National Taiwan University as the co-sponsoring institute.
- (e) Engineering Research Center with the National Chengkung University as the sponsoring institute and the National Taiwan University and the National Chiaotung University as the co-sponsoring institutes.

In addition to the above five Research Centers, an Agriculture Research Center was established in 1969 with the funds provided by NSC and the Joint Commission for Rural Reconstruction, with National Taiwan University as the sponsoring institute and National Chunghsing University and Taiwan Agricultural Research Institute as the Co-sponsoring institutes. About 800

CHART G. Fellowships Program FY 1961 to FY 1972

Math. / Applied		& Soc.	Science	2	untry Wild	ere ıney	Country Where They Are Trained	e d	Total	Appropriation
<u>ر</u>	Med. Sc.	Sciences	Sciences Education	Sn	Eng.	Fr.	Jap.	Eur.	- orai	(Unit: NT\$)
	4	2		10		1	4		15	
-	2	က		9			2		8	4,507,378
	9	S		16		H	9		23	
	9	4		14	П		ı		17	
	2	7		9	2				8	5,211,906
	8	9		20	က		-	H	25	
	2	9		10	1	1	-		13	
	9			9		1	က		11	5,014,958
	8	9		16	F	2	4	H	24	
	4	2		7			4	1	12	
	က	2		80	-		က	,I	13	6,044,530
	7	4		15	н		2	2	25	
	9	П		10			က		13	
	-	2		10			2		12	6,044,530
	7	9		20			വ		25	
	9	4		12	H		1	П	15	
	က	4		12	,,				13	6,276,826
	6	80		24	2	~	-		28	
	2	4		8	H		4		13	
	4	က		6	83		п	-	13	6,653,584
	б	7		17	က		2		56	

CHART G. (Continued)

Human, Science & Soc. Sciences Education
- 23
4
7
<u>.</u>
4
7
11

Remarks: (1) Class A for Professors, Associate Professors and their Equivalents: Permitted Stay Abroad for one year.

(2) Class B for Instructors, Lecturers, Assistants and Their Equivalents: for two years.
(3) Abbreviations: US=United States of America. Eng.=England. Fr.=France. Jap.=Japan. Eur.=Europe (Including West Germany, Netherlands, Canada, and Australia). Nat. & Math. Sciences=Natural and Mathematical Sciences. Engin. & Applied Sc = Engineering and Applied Sciences (The above two divisions are combined from 1961 to 1967 & separated since 1968). Biol., Agric. & Med. Sc. = Biological, Agricultural and Medical Sciences. Human. & Soc. Sciences = Humanities and Social Sciences. graduate students have been awarded the M.S. degrees at these centers while some Ph. D. degrees in natural sciences were awarded by home institutes for the first time in 1970.

Total NSC support for the research centers amount to between NT\$-50,000,000 and NT\$60,000,000 annually. With construction needs and equipment largely satisfied, grants to the centers have been shifted from an institutional basis to a project basis.

b. Major Programs in Applied Science and Technology

(1) Industrial Research and Development

Efforts on industrial research and new products development are primarily the function of a number of government research labs under the Ministry of Economic Affairs. The Science Fund, however, plays a catalyst role in this area by selectively supporting on-going projects as well as to help seeding new projects. Industrial R & D projects completed and presently still under NSC support include energy resources development, mining and metallurgy, steel-making, polymer processing, ceramics, food processing, textile and electronic technology, and management science.

Beginning from 1969, as the government launched the first of three four-year science development plans, the Fund used in regard to industrial research and development amounted to the equivalent of US\$28 million, about 0.75% of GNP, including about US\$25 million from the Ministry of Economic Affairs and over \$2 million from the Science Fund. Funds granted to the Engineering Research Center and for more basic studies are not included.

(2) Studies of Electronics

NSC's support of the Studies of Electronics is primarily purported to boost the present and the future development of the electronics industry in Taiwan, which has grown from the very small scale electronics assembling industry before 1960 to an export of the electronics products amounting to US\$180,000,000 in 1970 and further grown to that export amounting to US\$300,000,000 in 1971. As the total capital investment has grown to US\$250,000,000, a closer cooperation between the industry and research institutes appears urgent and absolutely necessary.

In order to promote the electronics research for industrial application, NSC appropriated from FY 1969 to FY 1971 a total of NT\$15,000,000 (not including the NT\$9,778,000 to support the electronics research in the Engineering Research Center) to finance research on semi-conductors, hardware and software of computer systems, electromagnetic wave and electronic communication systems. The projects were carried out at the National Taiwan University, National Chiaotung University and National Chengkang University.

(3) Experiments with Ship Model Basin

A Ship Hydrodynamics Laboratory was inaugurated at the National Taiwan University in 1970 with the support of funds from NSC for the purpose of carrying out research and training activities on naval architecture to meet the needs of Taiwan's young shipbuilding industry. The scope of its research activities cover the following areas: (a) Ship model test; (b) Ship hydrodynamics; (c) Primary ship designs; and (d) other aspects of naval architecture. For achieving the purported activities, the Laboratory is equipped with sea-keeping and maneuvering tanks, water circulation channel, wave generator and related instrumentations.

(4) Oceanography

Approximately NT\$ 70,000,000 has been appropriated by NSC for the study of oceanography over the past four years. Its breakdown is roughly as follows:

- (a) NT\$12,000,000 for the installation of laboratories.
- (b) NT\$18,000,000 for refitting a research vessel named Chiu Lien (secured from the U.S. on loan).
- (c) NT\$28,000,000 for equipping the vessel with up-to-date geophysical instruments and facilities for physical and chemical oceanographic research as well as marine and fishery research facilities.
- (d) More than NT\$5,000,000 for procurement of books, periodicals and reference materials and instruments.

The emphasis of oceanographic research efforts is placed upon marine geology, ocean currents and upwelling phenomena, algae and plankton distribution, fish ecology and fishery biology, and coral reefs in waters around Taiwan.

To implement the multiple purposes of the program, an Institute of Oceanography was established at the National Taiwan University on August 1, 1968. Besides tackling the projects as stated above, the Institute also participates in the international cooperative oceanographic research of the South China Sea and other areas with neighboring countries.

(5) Seismology

An Earthquake Research Project introduced and organized in 1970 with the task to complete the installation of a modern seisomological monitory network in Taiwan by the end of 1972 with the computerized data processing through telemetering. The installation of the telemetered monitoring system in Taiwan and its outlaying islands, NT\$ 20,000,000 was appropriated by NSC in its FY 1971 budget. In the next five years a pertinent program has been adopted for sending young scientists to the U.S. and Japan for advanced studies

and training in seismology, earthquake engineering, and the related fields so as to enable them to tackle much of the sophisticated operation of the system. Projects are now also under way for detailed analysis for data acquired by strong-motion seismographs at major propulation centers and engineering sites with a view to devising more relevant building codes and structural standards.

(6) Atmospheric Research

Since Taiwan is located on the path of typhoon formed in the northwestern Pacific, damage and loss caused by typhoon were trememdous.

In FY 1971, NSC initiated the program for Typhoon Research aiming at the exploration of a better preventive measures to minimize the losses to the lowest possible.

The program is carrying out by the National Central University. The Institute of Physics of Academia Sinica, and the Department of Geography of the National Taiwan University, etc..

In addition, a Sino-American Seminar on Typhoon was held in the United States in 1971 for exchange of technical information which is helpful to the research program.

Besides, to cope with the economic development, NSC has also launched or assisted a number of research program on applied science in Material Science Chemical Industry, Textile Food Processing, Farm Machinery and other agricultural projects.

(7) Agricultural Research

Agricultural research activities being carried out in Taiwan include crop science, animal husbandary, marine and fishery produsts, forestry and agricultual engineering.

Due to the rapid industrialization and the decreasing of the cultivated land, recent research efforts are therefore channeled to the breeding of nutrition-rich, high yield and disease-resistant varieties in crop such as rice, corn and sweet-potato.

Since 1970, about US\$ 2.24 million has been distributed to JCRR for the support of the most field experiments. US\$ 400,000 for the Asian Vegetable Research and Development Center for the development of new vegetable varieties.

(8) Medical Research Program

Efforts on medical research are primarily on anti-cancer drugs of plant origin, local diseases, reproductive physiology, nutrition, and acupuncture.

Since 1970, an amount equivalent to US\$1.7 million fund has been distributed to the following institutes for carrying out above researches:

College of Medicine, National Taiwan University

National Defense Medical Center

Public Health Administration, Executive Yuan

Taiwan Provincial Health Department

Several Sino-America cooperative programs have also been carried out in both two countries. Since 1966, the University of Wisconsin and the Cancer Institute have been working with the Taiwan's institutes in search of anticancer drugs.

III. SINO-AMERICAN COOPERATION IN SCIENCE

A. Objectives

International science cooperation has played an important role in Taiwan's science development right from its beginning. The achievements made in the past decade, though modest in absolute terms yet significant in starting an autocatalytic process, owed substantially to diverse international exchange programs and joint research ventures, particularly the large number of programs with the United States.

For the purposes of cultivating the foundation for science technological development, of introducing new scientific technology to the Republic of China and strengthening international ties of various research institutes, the Republic of China has inaugurated several international cooperation programs with Japan, Korea, and other Asian countries. Nevertheless, Sino-American cooperation in science has grown more and more important as more and more exchange programs have been implemented and they have benefited the country in its science development more greatly than any other international cooperation programs.

B. U.S.-China Cooperative Science Program

As Sino-American cooperation in science gained momentum, an exchange of notes between the two countries took place on January 23, 1969, inaugurating a comprehensive new framework for bilateral cooperation known as the US-China Cooperative Science Program. The U.S. National Science Foundation and the Chinese National Science Council were designated to be joint implementing agencies. Four types of cooperative activities have been sponsored by the implementing agencies as follows:

- 1. Short-term exchange of scientists, with the objective in widening the contacts between the two scientific coummunities.
- 2. Long-term exchange of scientists, with the objective primarily of enabling scientists of one country to do research in another with host investigators sharing the same interest.
- 3. Cooperative research projects, which differ from long-term exchanges in that interested scientists of the two countries usually work on different aspects of the same problem separately but are enabled to visit each other by the implementing agencies.
- 4. Bi-national seminars, designed not only to increase interaction between U.S. and Chinese scientists on a group basis, but also to generate new interest in cooperative research.

C. Direct and Indirect Achievements of the Cooperation Program

Though it takes much longer time to judge the achievements of the U.S.-China Cooperative Science Program, yet the influences have begun to be felt here in Taiwan. According to the First Status Report jointly prepared in 1972 by the two implementing agencies stated above on its preliminary evaluation of the program activities it has listed the following direct and indirect achievements of the Program:

- 1. The Program has stimulated Taiwan's graduate program and advanced research.
- 2. The bilateral exchange of visit has achieved the objective of widening contacts between the two scientific communities.
- 3. The visit of U.S. scientists to Taiwan has made it possible for their hosts to benefit directly from the visitors' experience and expertise in planning of Taiwan's scientific research.
- 4. Their visit also helps to introduce new science and technology into the Republic of China.
- 5. The exchange of visits under the Program has served to better the science education in Taiwan.

In order to better serve the interests and needs of the two scientific communities, the implementing agencies have been in close consultation to review priority areas of interest and to revamp the modes of implementation.

IV. OTHER INTERNATIONAL SCIENCE COOPERATIVE PROGRAMS

Both before and after the forced withdrawal of the Republic of China's United Nations membership, and consequently the abrupt termination in Taiwan of nearly all the scientific and technological programs under the auspices of the U.N. in Taiwan, the Republic of China has spared no efforts in seeking for bilateral arrangements connecting Taiwan's scientists with the world scientific community, most notably with the Republic of Korea, Republic of Vietnam, Australia, Thailand, and Japan, in addition to the ties with the U.S. as stated above. The Chinese Government, fully aware of the intimate relationship between U.N. technological programs (under UNDP and with the assistance of UNESCO, WHO, WMO, UNIDO, etc. with a total annual budget in excess of US\$2,000,000) and our economic development needs, has actively studied the situation and formulated contingency plans to carry on selectively the aborted U.N. programs. Being deprived of the assistance of U.N. affiliated organizations and UN Specialized agencies in technological planning and pilot-plant development, we have done our best to substitute effective bilateral or regional arrangements for the assistance of U.N. agencies. Therefore, more frequent contacts with the scientific communities of all friendly nations are maintained, and from time to time joint ventures of research cooperation have been made, of which the NSC has played an important part.

I. RECIPIENTS OF RESEARCH GRANTS

A. NATURAL AND MATHEMATICAL SCIENCES 自然科學及數學

1. Academia Sinica

(1) Class B

1. Effects of Dissolved Oxygen, Chloride Ions and pH in the Photo- and Radiation Synthesis of Amino Acids from Inorganic Nitrogen Compounds

Tsu-Chang Hung 洪楚璋

Associate Research Fellow

(2) Class C

2. Respiration of the Mitochondria of Bacillus subtilis

Shuh-Ming Chang 張曙明

Assistant Research Fellow

3. A Study of Collulase Activity of Genus Trichoderma toward Carboxymethylcellulose

Chi-Chuen Yang 楊啓春

Assistant Research Fellow

4. Separation and Determination of Proline from Gelatin

Shu-chen Sung 宋淑貞

Assistant Research Fellow

5. The Production and Quantitative Determination of Citric Acid

Jy-Shih Wang 王之士 Assistant Research Fellow

2. National Taiwan University

(1) Special Grant

6. New System of Earth Science Researches

Ting Ting H. Ma 馬廷英

Professor

7. Veneziano Model and Extended Elementary Particles

Jenn-Lin Hwang 黃振麟

Professor

8. High-temperature and High-pressure Mineral Synthesis Study: The Stability Field of Stilbite

Veichow C. Juan 阮維周

Professor

9. Structural Evolution of the Chinese Continental Margin and Oil Prospect of the Yellow Sea and East Sea

Chao-Siang Wang 王超翔

Professor

10. Neotectonics of the Taitung Coastal Range

Ch'ao-Ch'i Lin 林朝棨

11. Minor Hypogene Minerals of the Chinkuashih Gold-copper Deposits, Taiwan Chun-Kiang Huang 黄春江 Professor

(2) Class A

12. A Study on S-D Shell Nuclei

Kun-Kuang Huang 黄坤洸

Professor

13. Exploration on Clay Deposits in Northern and Eastern Taiwan

Pei-yuan Chen 陳培源

Professor

14. The Effects of Air Currents upon Rainfall Collection

Ken-Chuan Chou 周根泉

Professor

15. Pilot Planning and Success Possibility Study on Cloud Seeding to Augment Rainfall over Central and Southern Parts of Taiwan

Yu-chin Kang 亢玉瑾

Professor

16. On the Geographical Analysis of Energy Resources in Taiwan

Hung-wen Wang 王洪文

Professor

17. The Physical Geography Foundation of Land-use in the West Slopes of Tatu Tableland

Lu-ping Lee 李鹿萃

Professor

18. Environment Study of the Surrounding Waters of Taiwan

Tsu-You Chu 朱祖佑

Professor

19. Direct Reaction Analysis of the $^{14}N(n,\alpha)^{11}B$ Reaction at 14.1 Mev.

Ching-Ching Chang 張鏡清

Associate Professor

(3) Class B

20. On Calculations of the Band Energy Related to Muffin-tin Potentials

Der-Ruenn Su 蘇德潤 Associate Professor

21. Copper Content of Biotites from the Andesitic Rocks in Northern Taiwan Li-Ping Tan 譚立平 Associate Professor

22. The Crystal Chemistry of Titanium and Chromium Oxides
Chihming Wang Lee 王執明 Associate Professor

23. Studies of the Effects of Pollution Caused by Rubbish Heaps around the Coastal Area of Keelung City, Taiwan—Effects on the Community and Distribution of Phytoplankton

Young-Meng Chiang 江永棉

Associate Professor

24. Physical Characteristics of the Drainage Basins of Taiwan
Chiu-Yuan Wang 王秋原 Associate Professor

(4) Class C

25. Carbon-14 Dating and Measurement of Content of C-14 in the Air Yi-Chuan Hsu 許玉凱 Technician

26. Carbon-14 Dating and Measurement of Content of C-14 in the Air Muh-chuen Chou 周木春 Technician

27. Physical Properties of Freezing Solution

Chi-Shan Yang 楊啓珊 Technician

28. Counter Telescope for Studying the Reaction Induced by 14 Mev. Neutrons Song-Yun Lin 林松雲 Technician

29. On the Energy Transformations of Typhoon over Taiwan Sheng-ping Ho 何勝平 Lecturer

30. A Study on the Synthesis of Epistilbite
Huann-jih Lo 羅煥記 Lecturer

31. A. Experimental Study on the Vacuum UV Spectra of Zn, Mg and Na B. Preliminary Experiment on the Vacuum Optical Coating

Hsiou-er Lin 林秀娥

Lecturer

3. National Chengchi University

(1) Special Grant

32. Analytic Studies in Double Sampling

Ing-Tzer Wey 魏應澤

Professor

4. National Tsinghua University

(1) Special Grant

33. Studies on Qualitative Trace Analysis
Si-Jung Yeh 葉錫溶 Professor

(2) Class B

34. Synthesis and Deamination of 1-t-Butyl-2-aminomethylazetidine
Teng-yueh Chen 陳登嶽 Associate Professor

35. A Study of Gamma Radiolysis and Thermal Decomposition on Chromium Oxyganion Salts

Mo-Hsiung Yang 楊末雄

Associate Professor

36. Synthesis of 2, 2-Disubstituted Succinimide-1-14C as Effective Antiradiation Agents

Kong-Ko Lee 李功固

Associate Professor

(3) Class C

37. Thin-layer Chromatography of Radioactive Compounds

Tsun-Hsiung Hsieh 謝俊雄

Lecturer

38. Crystal Structure of UC1(C₅H₅)₈

Ching-nien Chen 陳慶年

Lecturer

(4) Class D

39. Improvement on Preparation of Iodine-131

Tsai-Feng Chen 陳在豐

Technical Assistant

40. Studies on Quantitative Trace Analysis: I. Neutron Activation Analysis of Trace Metal

Ping-yao Chen 陳炳耀

Technical Assistant

41. Gamma-radiolytic Study of Potassium Chromate

Ju-chin Wei 魏如津

Technical Assistant

42. Studies on Qualitative Trace Analysis: II. Gas Chromatographic Analysis of Trace Metal

Chin-Nan Ke 柯景南

Technical Assistant

5. National Chiaotung University

(1) Special Grant

43. A Study on the Orbits of Artificial Satellites

Hsu Chen 陳 煦

Professor

(2) Class C

44. On the Absolute Nörlund Summability Factor of Infinite Series

Tsui-Hwa Yang 楊翠華

Lecturer

6. National Chungyang University

(1) Class A

45. A Study on the Relationship between Size Distribution of Large Aerosol Particles and Its Sedimental Velocity and Meteorological Factors

Yuin-Kwei Tai 戴運軌

Professor

46. The Effects of Water and Carbon Dioxide on the Radiative Cooling Rates
San-Chi Hu 胡三奇 Professor

(2) Class C

47. The Effect of Atmospheric Winds on F2-region over Taipei
Chun-liu Tseng 曾俊六 Lecturer

48. Physical Properties of Miocene Sediments as Related to Seismic Velocities in Chuhuangkeng Area, Miaoli

Lecturer

49. Diurnal Variation of the Ionosphere over Taipei on Quiet and Disturbed Days for I.G.S.Y.

Wei-Hsiung Tsai 蔡偉雄

Lecturer

50. Studies on the Content of Rarer Elements in Taiwan Hot Spring Water: Studies on the Content of Peitow Hot Spring

Fu-Pao Tsao 曹福寶

Lecturer

7. National Taiwan Normal University

(1) Special Grant

51. Thermal Reactions of Aromatic Carboxylic Acids in Dimethylformamide
Cheng-Hsia Wang 王澄霞 . Professor

(2) Class A

- 52. A Geographical Survey of Irrigation in the Southwestern Region of Taiwan

 Hung-Hsi Liu 劉鴻喜 Professor
- 53. Quantitative Analysis of Land Form in the Northern Part of Taiwan Chung-Ru Ho 賀忠儒 Professor
- 54. A Study of the Microclimate of Taipei Basin

Yen-Huai Liu 劉衍淮

Professor

(3) Class B

55. Maximum Principles and Some of its Consequences on Royden's Compactification of Riemannian Spaces

I-Hsiung Lin 林義雄

Associate Professor

56. Radiocatalytic Effect of Uranyl Ion

Ming-tong Wey 魏明通

Associate Professor

57. A Geomorphological Quantitative Study on the Coral Reef Coast of Southern Taiwan

Tsai-Tien Shih 石再添

Associate Professor

(4) Class C

58. The Chelating Ability of Polyphosphates and Its Uses in Preserving Food:

I. The Stabilization of Vitamin C

Mei-Fang Lu 呂美芳

Lecturer

(5) Class D

59. A Study of Stream Order on the Coastal Area of Southern Taiwan

Jui-Chin Chang 張瑞津

Assistant

8. National Chengkung University

(1) Special Grant

60. Molecular Nitrogen Fixers

Ming-Pung Tien 田明朋

Professor

61. The Formation of Pyrolytic and High Density Graphite and Their Physical Properties

Kuang-Teh Yang 楊光德

Professor

62. Spectrochemical Analysis of Indium Alloys, Spectrochemical Analysis of Indium-Gallium Alloys (Spectrochemical Analysis in the Metallurgical Industry: Part Nine)

Sien-Yung Wang 王先鎔

Professor

(2) Class A

63. Application of Subharmonic Function

I-Hsi Lin 林宜禧

Professor

64. The Thermal and Electrical Properties of Compensated Extrinsic Semiconductor

Wang-Chien Peng 彭望謙

Professor

65. Solvent Extraction and Spectrophotometric Determination of Uranium Using 1.2-Cycloheptanedionedioxime as Chelating Agent

Shou-nan Chen 陳壽南

Professor

66. Transition Complex in Aromatic Ketone Synthesis
Chi-Hsiung Lin 林繼雄 Professor

(3) Class B

67. Recombination Coefficient in a Condensed Discharge Positive Column Plasma
King-Nien Woo 吳慶年 Associate Professor

68. Sedimentology of Tsengwen Delta

Shih-Chiao Chang 張石角

Associate Professor

69. Adsorption Characteristics of Coal in Aqueous Solutions

Chen-Cheng Wu 吳振成 Associate Professor

(4) Class C

70. Initial Topology and Final Topology of Vector Spaces
Luc Kuo-Yung Yen 顏國勇 Lecturer

71. A Study on Frink's Open Problem

Jen-Hun Chen 陳珍漢

Lecturer

72. Interaction between Ferrous Ion, Acetylacetone and Bathophenanthroline Yih-Hsiung Chen 陳義雄

(5) Class D

73. Molecular Nitrogen Fixers

Mau-Yung Yeh 葉茂榮

Assistant

74. Recombination Coefficient in a Condensed Discharge Positive Column Plasma

Meng-Chun Yeh 葉孟春

Assistant

75. Transition Complex in Aromatic Ketone Synthesis

Chung-ming Wen 溫聰明

Assistant

76. Transition Complex in Aromatic Ketone Synthesis

Lily L. Su 蘇利利

Assistant

9. National Chunghsing University

(1) Class A

77. Temperature Effect on the Stability of Vitamin A, C and Iodine Content in Sea Algae

Li-Yuan Liu 劉理遠

Professor

(2) Class C

78. Statistical Spectral Analysis of Purely Non-deterministic Process—Spectral Density Estimation

Jin-Yuh Chang 張金裕

Lecturer

79. T2-distribution and Its Application

Yih-hsyong Su 蘇義雄

Lecturer

80. Atmospheric Simulation

Lai-Chen Chien 簡來成

Assistant Research Fellow of Academia Sinica

10. Chungcheng College of Sciences and Engineering

(1) Special Grant

81. A Study in Raman Spectroscopy

Chen-Hanson Ting 丁陳漢蓀

Professor

11. Chinese Air Force Academy

(1) Class C

82. A Study of Bremsstrahlung Weighted Cross Section and Dipole Sum Rule Using a Relativistic Nuclear Model

Chang Hsu 徐 昌

Instructor

12. Air Communication & Electronics School, Chinese Air Force

(1) Class B

83. Prediction of Typhoon Movement and Intensity by Statistical Methods Yulei Chen 陳毓雷 Associate Professor

(2) Class C

84. Prediction of Typhoon Movement and Intensity by Statistical Methods Hsiao-Li Pao 鮑學禮 Instructor

13. Fujen University

(1) Class B

85. Minimal Hypersurface in S^{n+1}

Yi-Ching Yen 顏一清

Associate Professor

14. Tunghai University

(1) Class A

86. Spectrophotometric Studies of Cupric Bromide in Acetic Acid Solution Andrew Teh An Cheng 鄭得安 Professor

(2) Class B

87. Bordism Algebras of Periodic Transformations

Ching-Mu Wu 吳靑木

Associate Professor

88. Extensions of Uniformizable Spaces and Their Uniform Structures Wan-chen Hsieh 解萬臣 Associate Professor

(3) Class C

89. UV Spectrophotometric Kinetic Studies of the Ethyl Bromide-Ethoxide Ion Reaction in Diethyl Ether

Hsien-Yien Wang 王憲琰

Lecturer

90. Evaluation of Saponin Content in the Pasturage in Taiwan Lecturer

Pi-Yao Lin 林碧堯

Tamkang College of Arts and Sciences

(1) Class A

91. Molecular Studies by Infrared Spectroscopy

Tunli Chen 陳敦禮

Professor

(2) Class B

92. Instability Analysis for High Intensity Laser Passing through a Moving Medium

Wei-Yeu Chen 陳惟堯

Associate Professor

93. Electron Correlation in Closed-Shell Atomic System: II. Kee-Chuan Pan 潘可傳

Associate Professor

(3) Class C

94. On Direct Sum of Finite P-weakly Rings

Jau-Jing Chen 陳昭政

Lecturer

95. The Topological Space on Which G_{δ} -sets and Continuity Sets Are Equivalent Chen-jyi Su 蘇城吉 Lecturer

96. On the Dimension of $C^*(X)$

Leou-nan Hwang 黄柳男

Lecturer

(4) Class D

97. Some Problems on Lattice Theory

Kin-chun Lee 李金俊

Assistant

16. Chung Yuan Christian College of Science and Engineering

(1) Class A

98. A Study of Distributions to Partial Differential Equations

George Chen-neng Chang 張振能 Professor

99. Variation of Ultrasonic Velocity and Absorption with Frequency in High Viscosity Oils

Hung-Liang Kuo 郭宏亮

Professor

(2) Class B

100. Discussion on Kühler C-space Poincare Polynomial

S. H. Liu 劉與歡

Associate Professor

Taipei Medical College 17.

(1) Class C

101. Studies on the Chemical Component of Solanum Lyratum Thunb.

Cheng Lee 李 誠

Lecturer

18. Tatung Institute of Technology

(1) Class B

102, Derivation of the Mass Formula from the Shell Model of the Nucleus Jyi-cherng Hung 洪吉成 Associate Professor

19. College of Chinese Culture

(1) Class A

103. Free Atmosphere over Singapore

Chi-hsun Hsueh 薛繼埵

20. Provincial Taipei Institute of Technology

(1) Class A

104. Studies on Air Pollution

Tsung-Lin Huang 黄聰林

Professor

105. Adducts of Heterocyclic Bases with Bis(N-nitroso-N-naphthylhydroxy-laminato) Copper: II.

Chung-yao Hsu 許鍾瑤

Professor

21. Provincial Pingtung Junior College of Agriculture

(1) Class A

106. Studies on Effects of Rapid Growth Grass and Artificial Wind Shelterbelts in Orchard and Weather Analysis at Hengchun in Taiwan

Lien-jui Chern 程連瑞

Professor

107. The Method of Systematic Qualitative Analysis of Anions Using Test Papers

Jeng-Fang Cheng 鄭仁芳 Professor

(2) Class D

108. Studies on Effects of Rapid Growth Grass and Artificial Wind Shelterbelts in Orchard and Weather Analysis at Hengchun in Taiwan

Sen-Hsiung Hsu 徐森雄

Assistant

22. Ming Hsing Junior College of Technology

(1) Class A

109. Catalytic Hydrogenation of Geraniol

Phouti Sou 蘇弗第

Professor

23. Tajen Junior College of Pharmacology

(1) Class A

110. A Study on the Mode of Action of Antihistaminics and Its New Compounds
Chu-kun Shih 石竹根 Professor

24. Tamsui Oxford Junior College

(1) Class A

111. Unbiased Estimation for Function of a Truncation Parameter

Neng-che Yeh 葉能哲

Professor

25. Taiwan Sugar Experiment Station

(1) Class A

112. Studies on Raw Sugar Colorants: I. Fractionation and Characterization
Chung-Sheng Chang 張中盛 Research Chemist

(2) Class B

113. The Effects of Inorganic Constituents on the Sugar Ash Contents of Taiwan Superior White Crystal Sugar in the Clarifying Process

Zwei-Hou Hsu 許瑞後

Chemical Engineer

(3) Class C

114. Studies on Sugar-isomerizing Enzyme: I. Cultural Conditions for the Production of Glucose Isomerase and the Properties of the Enzyme

Ching-Liang Lai 賴慶亮

Chemist

115. Studies on the Variance of Colloid Stability in Cane Juice of New Varieties in Taiwan

Hui-Chuan Tseng 會滙川

Chemical Engineer

116. The Variation of the Chemical Constitution of New Sugarcane Variety during the Period of Maturity

Ming-Thao Tsai 蔡明朝

Chemical Engineer

117. Studies on the Treatment of Molasses Alcohol Slops

Yun-tang Chuang 莊允當

Chemical Engineer

(4) Class D

118. The Effects of Inorganic Constituents on the Sugar Ash Contents of Taiwan Superior White Crystal Sugar in the Clarification Process

Hong-Tsai Cheng 鄭鴻財

Chemical Engineer

26. Taiwan Provincial Institute of Geological Survey

(1) Special Grant

119. Microscopic Structural Analysis of the Slate Formation of Taiwan: Northern Taiwan

Tsang-po Yen 顏滄波

Senior Geologist

120. A Biostratigraphic Study of the So-called Slate Formation in Taiwan Based on Smaller Foraminifera: III. Sankuang-Hsiuluan Area along the Upper Courses of the Tanshuiho and the Yulochi

Li-Sho Chang 張麗旭

Senior Geologist

121. The Taipei Fault and Related Structural Features in Northern Taiwan
Chun-sun Ho 何春茲 Senior Geologist

(2) Class A

122. Stratigraphy and Structural Features of the Northern Hengchun Peninsula, Taiwan

Shin-Fu Tsan 詹新甫

Senior Geologist

123. Geology of the Area bətween the Pachangchi and the Choshuichi, Central Taiwan (Southern Part)

Wen-P'u Keng 耿文溥

Senior Geologist

(3) Class D

124. Biostratigraphic Study of the Smaller Foraminifera in W.P. Keng's "Geology of the Area between Choshuichi and Pachanchi, Central Taiwan (Southern Part)"

Tsui-Hsia Chen 陳翠霞

Junior Micropaleontologist

27. Central Weather Bureau

(1) Class A

125. A Comparative Study of Calculated and Observed Values of Precipitation Intensity

Ruey-Shan Lin 林瑞山

Station Master

- 126. The Rainfall Associated with Typhoons in Taiwan and Its Forecasting
 Yuan-Heng Wei 魏元恒 Research Chief
- 127. A Study of the Typhoon Which Attacks Taiwan
 Chin-Huai Hsu 徐晉淮 Chief of Forecasting Branch
- 128. A Study on the Relationship between Size Distribution of Large Aerosol Particles and Its Sedimental Velocity and Meteorological Factors

 Shih-Chong Lu 呂世宗 Chief of Observation Division
- 129. A Study on the Prediction of Rainfall over Taiwan during Typhoon Invasion by Analog Techniques

Ke-Hsun Chi 戚啓勳

Supervising Meteorologist

(2) Class B

- 130. A Study on the Forecasting of the Typhoon Track Which Attacks Taiwan
 Pang-Chie Cheng 鄭邦傑 Supervisor
- 131. The Use of Satellite Picture in the Cold Air Break Forecasting
 Pao-Chin Hsu 徐寶箴 Senior Meteorologist

(3) Class C

132. A Study of the Agrometeorological Environment in Taiwan

Chin-Su Yen 額俊士

Chief of Agrometeorological Section

(4) Class D

133. The Rainfall Associated with Typhoons in Taiwan and Its Forecasting
Ming-sen Lin 林民生 Technician

134. The Rainfall Associated with Typhoons in Taiwan and Its Forecasting Shinn-Liang Shieh 謝信良 Technician

135. A Study of the Typhoon Which Attacks Taiwan

Zu-chen Loh 羅字振

Technician

136. A Study of the Typhoon Which Attacks Taiwan

Bor-Yih Wang 王博義

Technician

137. A Study on the Relationship between Size Distribution of Large Aerosol Particles and Its Sedimental Velocity and Meteorological Factors

Fu-Lai Chen 陳福來

Technician

138. The Study of Effects of the Winter Stratospheric Warmings and the Persistent Weather in Taiwan

Lee-Chiang Hong 洪理强

Technician

28. Taiwan Fishery Research Institute

(1) Class B

139. Mechanical Studies on Shrimp beam Trawl in Relation to Its Catching Efficiency

Tsaan-Jan Lee 李燦然

Chief Research Officer

29. Taiwan Provincial Hygienic Laboratory

(1) Class B

140. Studies on the AVICEL Layer Chromatography: I. Application to Amino Acids

Shu-Chi Lee 李樹其

Senior Expert

30. Taiwan Livestock Research Institute

(1) Class D

141. Effect of Enzyme Preparation on the Macerating Activity of Substrate and the Digestibility in Rats

A-Li Hsu 徐阿里

Junior Specialist

31. Taiwan Fertilizer Company

(1) Class C

142. Studies on Application of Melamine: I. Synthesis of Mono-o-hydroxy-benzoylmelamine and Its Use for Synthesis of Dye

Yu-Yen Liaw **廖**玉燕

Researcher

32. Chinese Petroleum Corporation

(1) Class A

143. Depositional Environment of the Miocene Talu Sandstone Reservoir, Northwest Taiwan, and the Possibilities of Stratigraphic Traps

Cheng-Hui Tang 湯振輝

Section Chief

144. On Processing of Marine Seismic Data

Yuh-Sheng Pan 潘玉生

Chief Geophysicist

145. Development of the Neogene Sedimentary Basin and Formation of Oil and Gas Fields in Northwestern Taiwan

Hua-Teng Chiu 邱華燈

Assistant Department Chief

146. Distribution of Planktonic Foraminiferers in the Surface Sediments of the Taiwan Straits

Tunyow Huang 黄敦友

Laboratory Chief

147. Subsurface Geology of the Pingtung-Tungkang Plain, Taiwan Si-Chih Sun 孫智之 Senior Geologist

148. Subsurface Geologic Study of the Hsinchu Basin, Taiwan Stanley S. L. Chang 張錫齡 Chief Geologist

(2) Class B

149. Gravity Study of the Paishatun Structure, Miaoli Chin-Cheng Hu 胡錦城 Geologist

150. Abnormal Events on Seismic Records in Peikang and Yichu Area, Taiwan Hsin-Hsi Liu 劉昶成 Geophysicist

(3) Class C

151. A Study on the CDP Seismic Record in the Kengtzukou Structure, Hsinchu, Taiwan

Hsing-Chun Chiang 江新春

Geologist

Mei-Kuang Wang 王偉光 Geologist Geologist

153. A Study on CDP Seismic Records in Mailiao Area, Yunlin
Do-Ming Wu 吳多明 Geologist

154. Geologic and Seismic Study of the Hsiaomei Structure, Chiayi, Taiwan **Tai-Hsien Wu** 吳泰玄 Geologist

155. Gravimetric Study of the Taitung Rift Valley and the Coastal Range. Eastern Taiwan: I. Northern Part

Wu-Shong Chen 陳武雄 Geologist

- 156. Seismic Study on the Southern Part of the Tiehchenshan Structure

 Jien-Chu Lo 駱劍秋 Geologist
- 157. Seismic Study of the Paoshan Structure, Hsinchu, Taiwan **Jui-Shiang Chen** 陳瑞祥 Geologist
- 158. A Study of Multiple Reflection from Seismic Data in Taichung Basin, Taiwan Huo-Sheng Chung 鍾火盛 Geologist
- 159. A Study on the Seismic Variant Velocity in Tatushan Area, Taichung, Taiwan Fu-Chen Su 蘇福欽 Geologist

33. Chia Yee Solvent Works, Chinese Petroleum Corporation

(1) Class C

- 160. Studies on the Characteristics of Lube Oil vs. Polymethacrylates
 Chia-Eng Su 蘇嘉恩 Chemical Engineer
- 161. A Study on the Analysis of *n*-Paraffins Residued in the Petro-protein Giy-Shoung Huang 黄吉雄 Chemist

34. Bureau of Commodity Inspection & Quarantine, Ministry of Economic Affairs (MOEA)

(1) Special Grant

- 162. A Study on the Plastics Fillers from Taiwan Clay
 Wei-Hsieng Huang 黄維賢 Senior Specialist
- 163. The Synthesis of Hydroxycitronellal
 Ping-Hsien Yeh 葉炳賢 Senior Specialist

35. Mining Research & Service Organization, MOEA

(1) Class B

164. Occurrence of Geothermal Fluid in the Matsao Geothermal Area, Tatun Volcano Group

Wen-Tse Cheng 鄭文哲 Geophysicist

165. On the Minor Elements in the Takanshan Limestone, Kaohsiung Chi-Hsien Chen 陳志賢 Geologist

(2) Class D

- 166. Subsurface Geology of the Matsao Geothermal Area
 Yung-Juh Wu 吳永助 Assistant Geologist
- 167. Investigation of Chemical Variation of Geothermal Steam
 Feng-pyng Cherng 程極萃 Assistant Geochemist

36. Union Industrial Research Institute, MOEA

(1) Class A

168. The Study on Electric Insulating Varnish for Motor Coil **Ping-Yuang Chen** 陳秉源 Senior Chemist

37. Chinese Air Force, Weather Central

(1) Class C

- 169. The Research of Wind Force of Typhoons Affecting Taiwan

 Tse-Ming Lin 林則銘

 Colonel, Commander
- 170. The Research of Wind Force of Typhoons Affecting Taiwan
 Chia-Chung Yu 俞家忠 Lt. Col. Deputy Commander
- 171. The Research of Wind Force of Typhoons Affecting Taiwan
 Shih-Ting Wang 王時期 Lt. Col. Station Chief
- 172. The Research of Wind Force of Typhoons Affecting Taiwan

 Ko-Kung Chu 曲克恭 Colonel, Deputy Commander

(2) Class D

- 173. The Research of Wind Force of Typhoons Affecting Taiwan Fu-Chang Wang 王黼章 Lt. Colonel
- 174. The Research of Wind Force of Typhoons Affecting Taiwan
 Tsai-Wang Lin 林財旺 Major

B. BIOLOGICAL, AGRICULTURAL AND MEDICAL SCIENCES 生物及醫農科學

1. Academia Sinica

(1) Special Grant

1. Biochemical Mechanism of Plant Cell Wall Maturation

Jong-Ching Su 蘇仲卿 Research Fellow

(2) Class C

 Biochemical Studies on the Development and Differentiation Studies on the Cell Wall Polysaccharide Synthesizing System: B. Effect of Nucleotides Other than Uridylate on UDP-Glucose: D-fructose 2-glycosyltransferase of Bamboo Shoots

Chao-luan Yang 楊兆鸞

Assistant Research Fellow

2. National Taiwan University

(1) Special Grant

Response of Oil and Protein of Soybean Seeds to Temperature under Controlled Conditions: I. Influence of Constant Temperatures at Pod Filling Stage on the Oil and Protein Contents of Soybean Seeds

Wen-tong Tang 湯文通

Professor

4. Effects of "Right" and "Wrong" in Human Learning

In-Mao Liu 劉英茂

Professor

5. Chemical Kinetics of Rice Straw and Green Manure Decomposition in the Soils

Tsen Tuo Chen 陳振鐸

Professor

6. On Problems of Sampling Unit and Its Layout for Crop Trials: I. In Reference to Rice and Tobacco

Chueh-ming Wang 汪厥明

Professor

7. Reversibility of Neuromuscular Blockade by Neurotoxins from Elapid and Sea Snake Venoms

Chen-Yuan Lee 李鎭源

Professor

8. A Study on Carcinogen in Moldy Food Products

Ta Cheng Tung 董大成

Professor

(2) Class A

9. Tests of Carbohydrate Tolerance in the Chinese Newborn Infants

Ting-Chien Lee 李廷堅

Professor

10. Clinical Diagnosis and Significance of Prominent Precordial T Waves due to Myocardial Infarction

Hsi-Chin Tsai 萘錫琴

Professor

11. Epidemiological Studies on Blackfoot Disease in Taiwan: An Experimental Study on the Effect of Nutrition and Artesian Well Water in the Causation of Blackfoot Disease

Kung-pei Chen 陳拱北

Professor

12. A Study on the Effect of Ethrel in Promotion of Pistillate Flowering and Growth in *Lagenaria vulgaris* Ser.

Han Huang 黄 涵

Professor

13. Studies on the Metabolism and Degradation of Pesticides in Nature: I. Persistence of Organochlorine Insecticides Aldrin and Heptachlor in Taiwan Soils

Yuh-Lin Chen 陳玉麟

14. Biological Characteristics of Herpes Type Virus-carrying Nasopharyngeal Carcinoma and Burkitt Lymphoma Cell Lines: I. Induction of Cell Transformation and Immune Response in Baby Taiwan Monkeys

Czau-siung Yang 楊照雄

Professor

15. Investigation on Distribution of Leptospiral Agglutinin of Domestic Animals in the World: III.

Yong-Piao Liu 劉榮標

Professor

16. Annual Growth Cycle of the Vine and the Fruit Development of Grapes in Taiwan

Yeou-der Kang 康有德

Professor

17. Effects of Different Spacings on the Form, Productivity Weight, and Site Quality on Cryptomeria Stands

Tze-ting Wang 王子定

Professor

18. A Study on Host Range of the Rice Stem Rot Fungi Chi-Chang Chen 陳其昌

Professor

19. Determination of Mating Types of Commercial Cultivated Mushroom, Agaricus bisporus

Hsi-Hua Wang 王西華

Professor

20. Roentgenologic Studies of the Effects of Rapid Decompression and Hypoxia on the Gall Bladder in Cats

Hwai Sze Fang 方懷時

Professor

21. The Effect of Personality and Information on Assumed Size

Fa-yu Cheng 鄭發育

Professor

22. Studies on Alkaline Protease Produced by Microorganisms

Yuan-chi Su 蘇遠志

Professor

23. Effects of Desipramine and Imipramine on the Nerve, Muscle and Synaptic Transmission of Rat Diaphragms

Chuan-Chiung Chang 張傳炯

Professor

24. Antiarrhythmic Action of Tetrodotoxin in Various Animal Species

Ting-Fei Huang 黄廷飛

Professor

25. A Phytochemical Study of Eucommia Ulmoides

Yun-Tao Sun 孫雲燾

26. Nature of Drug Tolerance in Sclerotium rolfsii

Lung-chi Wu 吳龍溪

Professor

27. A Study on Anicteric hepatitis

Zuei-Low Sung 朱瑞樓

28. A Study on the Mechanism of the Toxicity of Mimosine Kuo-Huang Lin 林國煌 Professor

29. Studies on the Manufacturing of Particleboard from Wood Species Grown in Taiwan

Shuen-Chao Wu 吳順昭

Professor

30. In vitro Cultivation of Schistosoma japonicum

Jui-Kuang Chiu 邱瑞光

Professor

31. Studies on the Problems of Taiwan Plywood Export and Its Obstacles Cheng Chow 周 槓 Professor

32. Mineralogy and Related Chemical Properties of the Red Soils Developed from Volcanic Detritus and Two Pyroxene Andesite in Tatunshan Region Joug-Min Chang 張仲民 Professor

33. Cephalometric Growth Studies of Cranio-facial Complex in Chinese: III. The Dimensional and Morphological Growth Changes of the Mandible

Yu-Ching Hong 洪鈺卿

Professor

34. A Study of the Release of Catercholamines from the Cat Adrenal Glands by Nicotine and Dimethylphenylpiperazinium

Fu-Li Lee 李復禮

Professor

35. Studies on the Toxic Metabolic Products of Botryodiplodia theobromae: Part I. Isolation of Toxic Metabolites from Mycelium

Yu-Shih Chen 陳幼石

Professor

36. A Study on the Transmission of Newcastle Disease Virus: II. Avian Viruses Transmitted through the Eggs of Ascaridia galli

Yung-Chi Lee 李永基

Professor

37. Repsonses of Root Development and Fruiting of Peanut to the Residual Effect of Herbicides under Various Water-tables

Chi-Chu Wang 王啓柱

Professor

38. The Influence of Rhythmically Fluctuating Temperature on the Development and Reproduction of the Green Peach Aphid, Myzus persicae Sulzer, and the Parasitism of Its Parasite, Ephedrus persicae Froggatt

Sze-Jih Hsu 徐世傑

Professor

39. Studies on Net Dietary Protein Calories Per Cent

Po-Chao Huang 黄伯超

40. The Pituitary FSH content and the Hypothalamic FSH-RF Content of Old Female Rats

Ming-Tsung Peng 彭明聰

41. The Effects of Herbicides on the Growth of Seedlings of Bischoffia javanica and Fraxinus formosana and Weed Control

Pao-Chang Kuo 郭寶章

Professor

42. Fractionation of Browning Reaction Product Formed in Reducing Sugaramino Acid System by Sephadex Column Chromatography and Antioxidative Activity of Each Fraction

Po-Tung Hsieh 謝伯東

Professor

43. A Study on the Life History and Control of Rhinoceros Beetle (Oryctes rhinoceros) in Taiwan: A Study on Its Integrated Control

Shi-Tao Yie 易希陶

Professor

44. The Normal Embryonic Development of Domestic Ducks
Robert Chuen-Shyang Ma 馬春祥 Professor

45. A Study on the Extracting Condition of Pectinesterase from Tomato Pulp
Yung-Chuan Huang 黃永傳 Professor

46. Comparative Studies on the Flavor Components Produced by the Solid and Liquid Processes of Kaoliang Liquor

Peh-Wen Liu 劉伯文

Professor

47. The Studies on Scientific Methods for Estimating the Quality of Teas: Rapid Analytical Methods for the Major Constituents Related to the Taste of Teas and Their Correlation to the Quality

Hon-Kai Ho 何芳陔

Professor

48. The Effects of Gamma Radiation on the Spermatogenesis and the Nervous Activity of Chilo suppressalis Walker

Peter May Tang 唐美逸

Professor

49. Studies on the Hygienic Safety of Animal Products in Taiwan: I. Residues and Changes of Antibiotics in Meat Tissue

Li-Chih Chen 陳立治

Professor

50. A Study on Pig Blood Group in Taiwan

Teng-Yuan Lee 李登元

Professor

51. Serum Lipid Studies on Atherosclerosis Patients in China

Jui-san Chen 陳瑞三

Professor

52. A Study on the Multiple Covariance Analysis and the Multivariate Analysis of Variance for the 3 Factorial Confounding Experiments

Shu-fan Yeh 葉樹藩

Professor

53. Purification of the Anticoagulant Principle of Agkistrodon acutus Venom Chaoho Ouyang 歐陽光和 Professor

54. Intercisternal Parallel Filament in the Endoplasmic Reticulum
Huai-San Lin 林槐三 Professor

55. Electronic Monitoring of the Fetus during Labor

Hsi-Yao Chen 陳哲堯

Professor

56. Studies on the Mineral Nutrition of Asparagus officinalis L.: I. Influence of Nuritional Status of the Root on the Quality and Quantity of Products

Hong-Chi Lin 林鴻淇 Professor

57. Studies on the Stem Form and Volume Table Construction of Cryptomeria in the Experimental Forest of Taiwan University

Yong-Chi Yang 楊榮啓

Professor

58. A Comprehensive Study on the Theory and Application of Diallel Method: I. The Primary Studies on the Design and Statistical Methods of Diallel and Statistical Methods of Diallel Cross

Lu-Chih Chang 張魯智

Professor

(3) Class B

59. Studies on the Movement of Soil Water in Paddy-upland Rotational Field:
I. Effect of Rainfall and Seasonal Fluctuation of Ground Water Levels on Soil Moisture Content in the Root Zone of Paddy-upland Rotational Field

Yuh-Piau Hsu 徐玉標

Associate Professor

60. Effects of Increased Portal Blood Inflow on the Liver

Kuang-Yung Hsu 許光鏞

Associate Professor

61. Auxiliary Liver Transplantation as a Temporary or Permanent Support to the Failing Liver

Chun-Jean Lee 李俊仁

Associate Professor

62. The Clinical Pattern of Rheumatic Heart Disease in Taiwan Wen-Ping Tseng 曾文賓 Associate Professor

63. Synthesis of Uracilchromone Derivatives

Kuang-Kann Hsu 許光塗

Associate Professor

64. A Comparative Study between "Mal-adjusted" and "Well-adjusted" Public Junior Middle School Boys

Chen-Chin Hsu 徐澄清

Associate Professor

65. Further Studies on the *in vitro* Culture of Excised Rice Roots **Kwan-Long Lai** 賴光隆 Associate Professor

66. Studies on the Staining and Wood-destroying Fungi of Major Hardwood Grown in Taiwan

Tou Chen 陳 道

Associate Professor

67. Studies on the Primary Structure of Abrin

Jung-Yaw Lin 林榮耀

Associate Professor

68. A Retrospective Study on Cancer of the Nasopharynx

Tong-Ming Lin 林東明

Associate Professor

69. Electron Microscopic and Cytochemical Studies of the Mouse Subcommissural Organ

I-Li Chen 陳以理

Associate Professor

70. The Classification of Basic Attentional Dispositions, and the Construction of Tools for Measuring Them

Yung-Ho Ko 柯永河

Associate Professor

71. The Relationship between Anxiety and Performance of Easy and Difficult Tasks under Failure-induced and Pain-induced Stress

Kuo-shu Yang 楊國樞

Associate Professor

72. A Comparison of Choice Responding in Chinese and American Children Ellen Yang 楊依蓮 Associate Professor

73. Heart-rot Disease of *Chamaecyparis obtusa* f. *Formosana* in Taiwan **Zuei-ching Chen** 陳瑞青 Senior Specialist

74. Studies on the Hydrological Balance in Stands of Taiwania (Taiwania cryptomerioides) and Cryptomeria (Cryptomeria japonica)

Peter Chü-San Lin 林琚三

Associate Professor

75. Antigenic Analysis of Soybean: Trypsin Inhibiter, Its Antigenicity and Interactions with Specific Antibodies

Shiau-Yen Chiu 居小燕

Associate Professor

76. Studies on the Nutritional State of Potassium in the Banana Plants
Yu-Yuan Yeh 葉育元 Associate Professor

77. Studies on Liver Fluke Disease in Taiwan: III.

Yong-shau Shien 沈永紹

Associate Professor

78. A Study on Hepatic Scintiscanning Using Double Radionuclides in the Diagnosis of Primary Hepatoma

Chuang-Ching Chen 陳傳慶

Associate Professor

79. Isolation of Nucleoproteins and DNA from Formosan Mullet Testes
Shu-mei Ting 丁淑美 Associate Professor

80. Effect of force-feeding Excess Methionine on Performance of Growing Male Chick

Ching-Pai Yang 楊清白

Associate Professor

81. Studies of the Primitive Lymphatic Apparatus in the Lungs of Macaca cyclopis

Hsi-Kuei Tsai 萘錫圭

Associate Professor

82. The Effect of Hyperosmolarity on Algesic Agent-induced Pain

Hwa-Mau Liu 劉華茂 Associate Professor

83. Morphological Studies on the Flowers and Fruits of the Order Magnoliales in Taiwan

Jih-Ching Liao 廖日京

Associate Professor

84. Biochemical Changes in *Dendrocalamus latiflours* Munro during Flowering Ching Kao 高 清 Associate Professor

85. Radioautographic Study on Activities of Giant Multinucleate Cells Induced by Sendai Virus: II. Uptake of L-leucine-4, 5-H³

I-Hung Pan 潘以宏

Associate Professor

86. Effects of Controlling Oxidation Enzyme Activity and Freezing Methods of the Quality of Frozen Mushrooms

Tzuu-Tar Fang 方祖達

Associate Professor

87. Oxygen Consumption in Seed Germination and Seedling Growth of Different Races of Cunninghamia

Chia-Hua Chiang 姜家華

Associate Professor

88. Clone Bank Establishment of Taiwania: II. A Study on the Flowering Effect of Gibberllic Acid to the Grafts of Taiwania

Fan-Hsi Kung 孔繁熙

Associate Professor

- 89. Studies on the Isomerization of Glucose into Fructose with Sodium Hydroxide
 Chien-Tse Yang 楊建澤 Associate Professor
- 90. The Effect of Radiation on Tissue of the Dog: I. The Effect of Cortisone on Tissue Changes after Radiation

Hsueh-wan Kwan 關學婉

Associate Professor

(4) Class C

- 91. Radiological Study on Hip Dysplasia in the German Shepherd Dog Chao-chien Ho 何昭堅 lecturer
- 92. Anastomosis of the Vas Deference in Dogs
 An-Chung Lin 林安仲
 Lection
- 94. The Cerebral Vascular Change in Normal Chinese
 Chun-Chung Wu 吳俊重 Lecturer

95. Experiments on the Regulation of Flowering of Pot Azaleas Ming-Jing Lee 黎民敬

Lecturer

96. Further Studies on the in vitro Culture of Excised Rice Roots Chin-Ri Hou 侯清利 Lecturer

97. The Manufacture of Catalyst-heat Cured Wood-plastic Combinations under Pressure

Ching-mu Tsai 蔡金木

Lecturer

98. Studies on Phosphatase in Milk: II. Studies on Reactivation of Phosphatase in Post-pasteurization of Milk

Horng-Chih Tseng 會弘智

Lecturer

99. Inhibition of the Browning Degradation of a 3-deoxy-glucosone an Intermediate in Browning of Sugar Solution, by Sulfite

Shi-shun Tsai 蔡錫舜

Lecturer

100. A Study on the Rate of Effective Rainfall from the View Point of Soil Moisture Contents

Ming-Tang Wu 吳銘塘

Lecturer

101. Giant Polynuclear Cell Formation Induced by BCG

Seng-Tien Chung 鍾森田

Lecturer

102. Preparation of Aerial Stand Volume Table for Cryptomeria Kuo-mu Chiao 焦國模 Lecturer

103. Some Personality Correlates of Individual Modernity among Chinese College Students

Pen-Hua L. Yang 李本華

Lecturer

104. An Immunoglobulin Study of Chinese New-born Infants and Cases with Hydrops Fetalis

Wen-Tsuo Chiang 江文哲

Lecturer

105. A Comprehensive Study of the Ei River and Kaohsiung Harbour Pollution Lecturer Fung-Chang Sung 宋鴻樟

106. Luteinizing Hormone-releasing Factor or Hypothalamic Extracts of Aged

Wan-Pang Pi 畢萬邦

Lecturer

107. Studies on the Combined Analysis of Covariance of Heavy Fertilization and Dense Planting vs Ordinary Fertilization and Planting in the Local Experiments of Early Maturing Rice Varieties

Ming-Lai Shen 沈明來

Lecturer

108. Endoscopiacal Study of Gastric Mucosa Flat Lesions

Teh-Hong Wang 王德宏

Lecturer

109. A Study on the Microbial Flora of External Ear Canals of Dogs

Chun-tshen Wang 王烱辰

Techologist

110. Studies on the Strobilus of Taiwan Red Cypress and the Viability of Its Pollen Grains

Cheng-min Kung 壟政敏

Specialist

111. Studies on the Canopy Interception and Stemflow of Precipitation by Taiwania and Japanese Firs

Wen-tsuen Chien 簡文村

Senior Technician

112. The Studies on Scientific Methods for Estimating the Quality of Teas—The Rapid Analytical Methods for the Major Constituents Related to the Taste and the Correlation to the Quality

I-ni Ting 丁一倪

Lecturer

113. Biochemical Studies on the Development and Differentiation: Studies on the Cell Wall Polysaccharide Synthesizing System: A. Polysaccharide Synthesis from GDPG in Bamboo Shoots

Hsien-Yi Sung 宋賢一

Lecturer

114. A Study on the Eye-ground of Patients Suffering from Systolic Hypertension Due to Hyperthyroidism

Ping-Kang Hou 侯平康

Lecturer

115. Protein Metabolism in the Rats in Relation to Non-protein Caloric Source by Varying Fats and Fat/Carbohydrate Ratio

Yuh-Chi Tsai 蔡玉吉

Lecturer

(5) Class D

116. Roentgenological Studies of the Effects of Rapid Decompression and Hypoxia on the Gallbladder in Cats

Chau-Fung Chen 陳朝峰

Assistant

117. Studies on the Manufacturing of Particleboard from Wood Species Grown in Taiwan: I. Effects of Particle Size, Particle Shape, Particle Moisture Content and Compression Ratio on the Physical and Mechanical Properties of Particleboard

Chih-I Tsao 曹志毅

Assistant

118. An Animal Experiment on Causal Mechanism of Blackfoot Disease
Yi-Chang Lin 林宜長 Assistant

119. Carcinogenic Substances from Taiwan Food Stuff: Studies of Aflatoxin B₁-like Compounds from the Culture of Aspergillus Genus

Chu-Hung Chung 鍾楚紅

Assistant

120. The Effect of Radiation on Tissues of the Dog: II. The Effect of Stannous Fluoride in the Prevention of Radiation Caries

Yu-Yuan Shiau 蕭裕源

Assistant

121. A Study on the Metabolites of Penicillium sp. Isolated from the Stored Unhulled Rice of Taiwan

Shou-san Tung 董修三

Teaching Assistant

122. The Effects of Adhesives and Different Adhesives Ratio on Strength of Particle Board

Dar-Shung Chung 鍾達雄

Assistant

123. Studies on the Forest Plants of Taiwan—Studies on the Genus Cirrhopetalum (Orchidaceae) of Taiwan

Horng-jye Su 蘇鴻傑

Assistant

124. Response of Oil and Protein of Soybean Seeds to Temperature under Controlled Conditions: II. Influence of Fluctuating Temperatures at Podfilling Stage on the Oil and Protein of Soybean Seeds

Ching-huei Kao 高景輝

Assistant

125. Studies on the Mineral Nutrition of Asparagus officinalis Linn: I. Influence of Nutritional Status of Root on the Quality and Quantity of Products

Tse-Chou Chang 張則周 Assistant

126. The Pituitary FSH Content and the Hypothalamic FSH Content of Old Female Rats

Hive-Ho Huang 黄輝和

Assistant

127. A Neuroanatomical Study of the Corticospinal Tract of the Albino Rat
Wen-Pin Chen 陳文彬 Assistant

128. A Study on the Anticoagulant Principle of Formosan Cobra (Naja naja atra)
Venom

Dong-Sheng Chen 陳東勝

Assistant

129. Studies on the Toxicity of Carcinogenic Bifunctional Aminoazo Dyes
Shwu-Ching Horng 洪淑卿 Teaching Assistant

130. Effects of Desipramine on the Nerve, Muscle and Synptic Transmission of Rat Diaphragm

Sing-Tai Chuang 莊幸代

Assistant

131. Response of Fruiting of Peanut to the Residual Effect of Herbicides under Various Water-tables

Assistant

132. In vitro Transformation of Taiwan Monkey Leukocytes by Herpes-type Virus-carrying Nasopharyngeal Carcinoma and Burkitt Lymphoma Cell Chien-Ts Chu 朱健文 Assistant

133. The Cruciferae of Taiwan

Shao-Shun Ying 應紹舜

Teaching Assistant

134. Studies on the Problems of Taiwan Plywood Export and Its Obstacles

Kowk-Chung Lee 李國忠 Assistant

135. Antigenic Analysis of Soluble Antigens Derived from Nasopharyngeal Carcinoma and Burkitt Lymphoma Cell Lines

Jwo-Farn Chiou 邱卓凡

Teaching Assistant

136. Performance of a Hydroclone in Concentrating Dillute Aqueous Synthetic Detergent

Jer-Yian Ho 何哲意

Teaching Assistant

137. Simulation of Digital System

Nai-Cheng Liu 劉乃誠

Assistant

138. A. Experimental Study on the Vacuum UV Spectra of Zn, Mg and Ma B. Preliminary Experiment on the Vacuum Optical Coating

Chin-Yen Lee 李清彦

Assistant

139. The Physical Geography Foundation of Land-use in the West Slopes of Tatu Tableland

Miaw-shong Chai 蔡茂常

Assistant

140. Studies on the Nutritional State of Potassium in the Banana Plants
Hong-Huei Lai 賴宏輝 Assistant

141. The Utilization of the Trapping for the Coconut Rhinoceros Beetle (Cryctes rhinoceros) Control in Taiwan

Wu-Kang Peng 彭武康

Assistant

142. Studies on the Host Range of Rice Stem Rot Fungi Wen-Shi Wu 吳文希 Assistant

143. Effect of Force-feeding Excess Methionine on Performance of Growing Male Chick

Chwen-li Wu 吳春利

Assistant

144. Studies on the Metabolism and Degradation of Pesticides in Nature: I. Persistence of Organochlorine Insecticides Aldrin and Heptachlor in Taiwan Soils

Yung-ho Su 蘇永和

Assistant

145. Effect of Cultural Conditions on Production of Surface Antigen in Nasopharyngeal Carcinoma and Burkitt Lynphoma Cell Lines Shen-wu Ho 何憲武 Assistant

146. The Influence of Rhythmically Fluctuating Temperature on the Development and Reproduction of the Green Peach Aphid, Myzus persicae S., and the Parasitism of Its Parasite Ephedrus persicae F

Err-Lieh Hsu 徐爾烈

Assistant

147. Effects of the Plow Depth on the Soil Moisture and Product of Crops Cheng-show Yeh 葉政秀 Assistant

148. Analysis on the Quality of Frozen Mushrooms Treated by Enzyme Inhibition Shau-mei Ou 區少梅 Assistant

149. A Study on the Propulsive Motility of Small Intestine in Hypophysectomized Ying-i Peng 彭英毅 Assistant

3. National Taiwan Normal University

(1) Special Grant

150. Effect of Yeast RNA on Synthesis of Serum Protein and Muscular Protein in Misgurnus anguillicaudatus

Tuan-Sheng Miu 繆端生

Professor

(2) Class A

151. Effects of Social Environment on Rate of Learning and Rate of Forgetting in Elementary School Children

Chun-hsing Chang 張春與

Profeeor

(3) Class B

152. Effects of Stimulus Changes on Orienting Reflex Yung-hwa Chen 陳榮華

Associate Professor

(4) Class C

153. The Classical Conditioning of the GSR to the Visual Verbal-stimuli-Development of Word Meaning

Chen-shan Lin 林清山

154. Distribution Patterns of Angiostrongylus cantonensis in Achatina fulica Yung-fu Wen 溫永福 Lecturer

155. Effects of Yeast RNA on the Serum Phosphatase and Protein Synthesis in Tilapia mossambica

Ho Shih 施 河

(5) Class D

156. The Effect of RNA on Synthesis of Serum Pattern and Muscular Protein in Misgurnus anguillicandatus

Shiann-yee Lee 李憲一

Assistant

157. The Effects of Stimulus Changes on Orienting Response
Wu-tien Wu 吳武典 Assistant

4. National Chunghsing University

(1) Special Grant

158. The Management of the Clone Bank of Luanta-fir

Yeh-Ching Liu 劉業經

Professor

159. Studies on the Breeding Behavior of High Oil and High Protein Content of Soybean

Ying-Chuan Lu 盧英權

Professor

160. Studies on the Phytotoxin of *Pseudomonas putida* Ro 26 and Its Relationship with the Poorly Drained Soil and Yield of Rice

Maria M. H. Wu 吳敏慧

Professor

161. Electron Microscopic Study of Mycoplasma-like Organisms Associated with Plant Host and Insect Vector of Rice Yellow Dwarf

Moh-Jih Chen 陳脈紀

Professor

162. Investigation and Classification of the Cerambycids of Taiwan

Shu-chen Chang 張書忱

Professor

163. Studies on Physiology of Parasitism: II. Effect of Helminthosporium oryzae— Toxin on Cellular Physiology of Infected Plant Tissues

Mong-Shang Kuo 郭孟祥

Professor

164. Studies on the Plant/Water Relations: I. A Study of the Stomatal Aperture and Plant/Water Relations in Fruit Trees

Ching-yih Chen 陳清議

Professor

(2) Class A

165. The Ecology Fusarium moniliforme on Rice with Special Reference to Its Perfect Stage "Gibberella"

Dah-wu Chen 陳大武

166. An Analysis of the Rice Stem Borer Moth (Chilo suppressalis Walker)
Collected by Means of Light-traps

Ku-Sheng Kung 貢穀紳

Professor

167. The Effect of Gibberellin for the Development of Luchu Pine
Cheng-Tung Chen 陳振東 Professor

168. Factors Affecting Sporulation of Plant Pathogen

Shou-kung Sun 孫守恭

Professor

169. A Study on the Effects of Site to the Stand-growth of Cryptomeria Plantation

Shen-Hsiao Liu 劉愼孝

Professor

(3) Class B

170. The Design and Use of Studies Instruments for Forest: I. Slide Rule for Design of Curve of Forest Road II. Device of Drawing and Calculation for the Volume of Earth Work

Shou-Cheng Lin 林守誠

Associate Professor

171. Role of Ascorbic Acid in the Growth and Sex Expression of Cucumist sativus L.: Part I

Ming-Chang Huang 黄敏展

Associate Professor

172. Studies on the Comparison of the Strength, Hardness, and Antishrink Efficiency of Woods Treated with Monomers of Several Resins

Kun-fu Liao 廖坤福 Associate Professor

173. The Genus Arachniodes Bl. and Its Allies in Taiwan
Wang-Chueng Shieh 謝萬權 Associate Profe

Wang-Chueng Shieh 謝萬權 Associate Professor

174. Direct Effect of Oxygen Concentration in Soil on the Growth of Paddy

Rice

Tse-Chun Yang 楊策羣

Associate Professor

175. Studies on Cercospora Leaf Spot of Banana: IV.

Hsi-Ching Wang 王錫慶 Associate Professor

176. Experiment on the View Rooting of China-fir Sucker Cuttings
Chu-Po Ho 賀主伯 Associate Professor

177. Biological and Immunological Studies of Soybean Mosaic Virus Strains
You-Hsin Han 韓又新 Associate Professor

(4) Class C

178. A Study on Soil Morphological and Physico-chemical Properties of Reddish Brown Soil in Taichung Area

Ming-Ko Wang 王明果

179. Studies on the Relationship between Several Physiological Functions of Plant and the Soil Moisture Stress

Hsing-sun Chang 張杏生

Lecturer

180. Infrared Spectrophotometric Determination of Degree of Unsaturation of Fats and Oils

Shu-Hua Chen 陳淑華

Lecturer

181. Physiological Studies on the Water Relation of Important Forest Trees in Taiwan: III.

Chun-Te Chang 張峻德

Lecturer

182. A Study on the Micro Nutrient Status of Deciduous Fruit Trees
Yin-Po Wang 王銀波 Lectures

183. The Application of Grafting of Forest Tree for Breeding
Yung-Kuen Fang 方祭坤 Lecturer

- 184. A Comparison of Bionomics between *Hirschmanneilla oryzae* and *H. gracilis*Yih-yaw Lin 林奕耀 Lecturer
- 185. Studies on the Distribution and Properties of Lactic Acid Bacteria in Cow's Milk in Taiwan: II. On Cow's Produced in the North Part of Taiwan Chung-hsung Shih 施宗雄 Lecturer
- 186. Utilization of Hydrocarbon by M.O.: Studies on Organic Acid Fermentation Chien-Jen Chiou 邱健人 Lecturer
- 187. Studies on the Inheritance of Earliness Gene-block in Rice **Kuo-Hai Tsai** 蔡國海 Technician
- 188. A Study on Bird-alarming Technique and Its Theory of AV-alarm Tower System on Rice Crop

Yang-ren Hwang 黄陽仁

Lecturer

(5) Class D

189. Studies on the Breeding Behavior of High Oil and High Protein Content of Soybean

Huusan Yen 顏 虎

Teaching Assistant

190. The Ecology of Fusarium moniliforme on Rice with Special Reference to Its Perfect Stage "Gibberella"

Hoang-kao Hsu 徐鴻臬

Assistant

191. The Convolvulaceae of Taiwan

Chern-Hsiung Ou 歐辰雄

Assistant

192. Studies on the Plant/Water Relations: I. A Study of the Stomatal Aperture & Plant/Water Relations in Fruit Trees

Joung-nen Chen 陳忠男

Teaching Assistant

5. National Defense Medical Center

(1) Special Grant

193. Role of Vitamin B₆ Derivatives in Enzyme Stabilization

Foo Pan 潘 福

Professor

194. An Appraisal of the Current Concept on Mechanism of Goitrogen-induced Sex Transformation in Frog Tadpoles

Chih-Yun Hsu 許織雲

Professor

195. Further Studies on Cardiac Muscle Homogenates of Hypodynamic Hearts Richard C. Li 李 鉅

(2) Class A

196. Immunological Correspondence of Taiwan Natricine and Colubrid Snakes as Well as Their Evolution

Shou-Hsian Mao 毛壽先

Professor

(3) Class B

197. A Comparative Study of the Papanicolaou Technic and the Flourescence Method for Diagnostic Cytology

Kang-chu Chu 朱康初

Associate Professor

(4) Class C

198. Amino Acid Specificity of Rat Liver Methionyl-tRNA Synthetase

Gu-gang Chang 張固剛 Instructor

199. Tropical Eosinophilia in Endemic Area of Filarisasis in Kinmen County
Yi-Chang Wang 王怡昌 Instructor

200. Effect of Amino Acid Imbalance on Nucleic Acid and Enzyme Activities in Liver

Ming-fang Lin 林明芳

· Instructor

201. The Relationship between Hair Follicular Chalone and Hair Growth

Jy-Jye Chang 張之傑 Instructor

202. Effects of Some Synthetic Compounds on Plasma Lipids and Electrolytes

Mao-Hsiung Yen 額茂雄 Instructor

203. An Oral Factor in the Caloric Adjustment of Rats during Growth or Hypothalamic Hyperphagia

Cheng-Ming Liu 劉正民

Instructor

204. An Evaluation on the Effectiveness of the "Musa Health Station Pamphlet" Musa District, Taipei, Taiwan

Yaw-tang Shih 石曜堂

Instructor

205. The Effect of Methimazole on Sex Transformation in Hypophysectomized Tadpoles

Hsu-cheng Huang 黄旭正

Instructor

206. Effect of Tannic Acid on Food Intake in Rats
Chang-Tien Tsai 蔡長添 Instructor

207. Effects of Estradiol on Rat's Hepatic and Uptake of Nucleoside
Chu-Tay Tang 唐聚泰 Instructor

208. Dissociation of Avidin-biotin Complex in vitro
Su-luning Ho 何世能 Instructor

209. Studies on Rat Liver Cysteinyl-t RNA Synthetase
Gau-Min Duh 杜高閔 Instructor

- 210. The Interaction of Aflatoxin B₁ with Choline and Its Relative Compounds
 Shiuh-sheng Lee 李旭生 Instructor
- 211. Effects of Ketamine on the Synaptic Transmission in Cat Spinal Cord
 Chieh-fu Chen 陳介甫 Instructor
- 212. Effects of G₃ on the Proteic and Nucleic Acid Synthesis of H. Ep-2 Cell Bang-Kang Guo 郭邦康 Instructor

(5) Class D

213. Role of Vitamin B₆ Derivatives in Enzyme Stabilization
Shou-hsiung Pai 白壽雄 Assistant

214. An Appraisal of the Current Concept on Mechanism of Goitrogen-induced Sex Transformation in Frog Tadpoles

Chieng-hsun Chiang 江建勳

Assistant

6. Tunghai University

(1) Class A

215. The Chemosterilization of the Biting Midge, Atrichopogon rostratus (Winnertz)

Wesley Keh-chin Sun 孫克勤

(2) Class D

216. The Catfish of Taiwan I-heng Chung 鍾以衡

Assistant

7. Kaohsiung Medical College

(1) Special Grant

217. Studies on the Structure-activity Relationships of Cobrotoxin: I & II Chen-chung Yang 楊振忠 Professor

(2) Class A

218. Studies on the Alkaloids of *Dehassia triandra* Merr.

Sheng-Teh Lu 廬盛德 Professor

219. Immunochemical Studies on Cobrotoxin
Chun-chang Chang 張均昌 Professor

(3) Class B

220 Components in Champereta manillana and Components of Wickstroemia indica II, III

Wen-hsing Lin 林文星

Associate Professor

(4) Class C

221. An Experimental Study on the Spinothalamin Tract and Its Related Tracts in the Monkey (Macaca cyclopis)

Zuei-Yuan Chen 陳瑞源

Lecturer

(5) Class D

222. Studies on the Necrotizing Factor of Formosan Cobra Venom Robert Hung-chih Chiu 邱鴻志 Assistant

223. Gas Chromatography of Narcotic Analgesic
Yi-Hung Tsai 蔡義弘 Assistant

8. Taipei Medical College

(1) Special Grant

224. Studies on the Constituents of Antitumor Plants
Tsang-Hsiung Yang 楊藏雄 Professor

(2) Class C

225. Studies on the Constituents of Formosan Salvia plebeia R. Br.: I. Kuo-Tung Chen 陳國棟 Lecturer

226. A Study on the Chemical Components of the Seed of Abrus precatorius
Hung-Tu Lee 李宏圖 Lecturer

(3) Class D

227. Studies on the Vasodilator Effective Compounds of Plants in Taiwan Ling-Ling Yang 楊玲玲 Assistant

228. Studies on the Constituents of Hernandia ovigera L.

Shih-Chih Liu 劉世智

Assistant

229. Studies on the Alkaloids of Lotus Receptacle

Chi-ming Chen 陳繼明

Assistant

9. Provincial Chiayi Junior College of Agriculture

(1) Class B

230. The Convolvulaceae of Taiwan

Fu-Yuan Lu 呂福原

Associate Professor

231. Studies on the Selection of Breeding Materials in Indica Varieties by the Application of the Principal Component Analysis

Chung-mao Lin 林中茂

Associate Professor

10. Provincial Pingtung Junior College of Agriculture

(1) Class A

232. Studies on the Stratified and Two-stage Sampling Methods Applied in Forest Inventory by Sampling Error and Relative Efficiency Comparison

Pao-lin Yang 楊寶霖

Professor

233. On the Correlation between Certain Chemical Properties of Cropland Soils in Taiwan

Pei-sen Yang 楊培森

Professor

234. The Malvaceae of Taiwan

Ching-en Chang 張慶恩

Professor

235. A Study on the Control of Salmonellae in Balanced Feeds: I. The Investigation of Salmonellae in Commercial Feeds

Ching-mu Cheng 鄭清木

Professor

(2) Class C

236. Studies on the Isolation and Character of Newcastle Disease Virus Obtaining from Ducks in the Field

Hsi-chi Chang 張錫祺

Lecturer

237. The Selection of Coconut Palm

Cheng-Ping Liu 劉正平

Lecturer

(3) Class D

238. Identification of Salmonella Serotype Isolated from Commercial Balanced Feeds

Chao-fu Chang 張照夫

Assistant

239. A Histopathological Study on the Hepatic Diseases of Slaughtered Pigs in the Southern Part of Taiwan

Cheng-I Liu 劉正義

Assistant

11. Provincial Hsinchu Junior College for Teachers

(1) Class C

240. A Study of the Speech Development in Children, Analysis of the Phonemicization of Their Sounds

Shu-Hsin Lee 李淑信

Lecturer

12. Chungshan Medical and Dental Junior College

(1) Class A

241. A Biochemical Study on Biosynthesis of Mucopolysaccharides in the Rabbit Submaxillary Gland

Song-Jui Shiow 蕭松瑞

Professor

(2) Class C

242. In vitro, a Study of Three Different Fraction of Psidium Root Extract on the Gonadotrophin

Chen-long Chang 張振隆

Lecturer

13. Taiwan Sugar Experiment Station

(1) Special Grant

243. On the Mechanism of the Formation of Humic Acid in the Soils
Thomas S. C. Wang 王世中 Adviser

244. Effective Rainfall on Sugar Cane Fields

Yih Chu 朱 盆

Senior Specialist

245. A Study on the Phosphate Potential of Some Sugarcane Soils in Taiwan Chwan-chau Wang 王傳釗 Senior Specialist

(2) Class A

246. Studies of High Protein and Energy Levels in the Diets on Growth Rate and Carcass Quality of Swine

Nai-Lun Tai 戴乃倫

Researcher

247. Effects of Water on Sugarcane Growth, Nutrients and Water in Canes
Tao-Tze Yang 楊滔慈 Senior Plant Physiologist

248. Regulation of the Biosynthesis of Starch and Sucrose in Cane Plant: II

Demonstration and Purification of Starch Phosphoylase and Starch Synthetase
in Cane Leaves

Hung-Chao Lee 李洪潮

Senior Plant Physiologist

249. Sugarcane Tissue Cultures in Relations to Diseases

Lii-Sin Leu 呂理樂

Senior Plant Physiologist

250. Studies on Induction of Mutations in Sugarcane: I. Induction of Mutations of Radiation of Gamma-rays

Sung Lee 李 松

Head of Station

251. The Physiology and Genetics of Sugarcane

Chuan-Cheng Lo 羅傳成

Senior Specialist

252. A Study on the Chemical Control of Flowering in Sugarcane
I-Sun Shen 謎貽蓀 Senior Specialist

253. Pork Myoglobin Extraction and Its Heritability Estimation

I-Kuei Hwang 黄以珪 Head of Department

254. Studies on the Polymerization of Phenolic Acids and Humic Acid in the Soil **June-Jiang Shiue** 薛鎮江 Senior Soil Specialist

255. A Preliminary Study of Special Line Cross (First Year)
Sen-Chang Wung 翁森昌 Deputy Director

256. A Study on the Combined Application of Plant Growth Regulators and Herbicides to Improve Growth of Ratoon Cane and Chemical Weed Control Sheng-Yang Peng 彭燮揚 Senior Agronomist

257. A Study on the Total Responses of Sugarcane Treated on Different Growing Stages with Plant Regulants—Effect of Concentration and Time of Pretreatment on the Germination and Growth of Cane

Tun-Po Pao 包敦樸

Head of Department

(3) Class B

258. Effects of Lysine, Methionine and Energy Intake on Milk Secretion and Reproductive Performance of Sows during Pregnancy and Lactating Periods

Shy-Yu Chen 陳錫鈺

Senior Specialist

259. Subdrainage and Natural Leaching as Means of Saline Soil Improvement
Shih-ching Yen 嚴式清 Agronomist

260. A Study on the Decomposition of Organic Manure and the Formation of Humus in Soil with C¹⁴ Tracer Method

Kuo-ming Huang 黄國明

Agronomist

261. Effects of Nutrients N, P, K, on Translocation of Sucrose in Sugarcane Plants

Loh Kong 康 樂 Associate Plant Physiologist

262. Studies on the Oxidation Systems in Sugarcane Cell: The Properties of Sugarcane Mitochondria

Chih-sheng Tsou 鄒篾生

Associate Researcher

(4) Class C

263. Studies on Treatment of Industrial Wastes: I. Studies on Treatment and Application of Fodder Yeast Waste

Pau-Tsung Hwang 黃寶村

Chemical Engineer

264. Studies on the Characteristics of Insect Transmission and Host Range of Sugarcane White Leaf Disease

Chu-te Chen 陳主得

Associate Plant Pathologist

265. A Study on the Growth and Constitution of Tiller and Development of Sugarcane Root in Stony Gravelly Soil

Fuu-Yeu Hsia 夏輔禹

Agronomist

266. Pork Myoglobin Extraction and Its Heritability Estimation
Paul Ting-Jiun Koh 戈定軍 Specialist

267. Studies on Oxidation System in Sugarcane Cell: Oxidases in Sugarcane Cell Wen-Pin Chen 陳文彬 Assistant Researcher

- 268. A Preliminary Study on an Outbreay of Trypanosomiasis in Swineherd

 Len-Chin Chang 張聯欣 Parasitologist
- 269. Studies on Three-breed Rotational Crossbreeding in Swine
 Jiin-Yuan Huang 黃錦源 Chief of Farm
- 270. Studies on Swine Infertility—With Special Reference to Thyroid Gland Ning-Yuan Chou 周疑元 Junior Pathologist
- 271. A Study of Influences of the Amalgation of Slow-released and Quick-accelerated Nitrogenous Fertilizers on Sugarcane's Growth and the Nitrogen Absorbed by Sugarcane in Gravelly Sand Soil

Shyue-Yeou Liao 廖學有

Agronomist

272. Studies on the Hydrolysis of Soy-protein by Acid Protease of Aspergillus niger

Chiang-Tyaw Leu 呂江調

Assistant Technologist

273. A Study on Application of Soil Conservation Agent Curasol in Autumn Planting Sugarcane to Prevent Soil Erosion and Maintain Uniform Efficary of Herbidies

Wen-biou Sze 施文標

Associate Agronomist

274. Effective Rainfall on Sugarcane Field

Ming-sen Chyou 邱明森

Assistant Specialist

275. Studies on the Effect of Parasitic Nematodes on Can Yield and Its Control:
The Method for Propagation of Sugarcane Nematodes on Plant Tissue Culture
To-Kun Tsai 蔡德坤
Nematologist

276. A Study on the Effect of Fertilizer Application on Various Positions of Can Plant on the Uptake of Nutrients of Sugarcane

Shiu-Ching Yang 楊秀青 Agronomist

277. Studies on the Mutation of Fodder Yeast

Suei-fa Lin 林水發

Chemical Engineer

278. A Study on the Relationship between Environmental Factors and Development of Larvel Stages of Matsumuratettix hiroglyphicus Matsumura

Shiu-lan Yang 楊秀蘭

Assistant Entomologist

279. Effect of Different Ground Water and Nitrogen Levels on the Irrigation of Spring Planted Sugarcane

Yu-Tsuan Chang 張玉鑽

Associate Agronomist

280. Radioisotope Tracer Method Used for Studying the Effect of Plant Spacing on Root Surface Absorption Zone

Chin-Hua Chang 張晉華

Associate Soil Specialist

(5) Class D

281. Studies on the Ecology of Trichogramma australicum

Tsong-Hong Su 蘇宗宏

Assistant Entomologist

282. The Parasitic Fungi and Its Relation to Soil-inhabiting Insects **Zu-nan Wang** 王次男

Assistant Pathologist

283. Studies of High Protein and Energy Levels in the Diets on Growth Rate and Carcass Quality of Swine

Yu-Shi Shih 施有證

Assistant in Feeding

284. A Preliminary Study of Special Line Cross (First Year)

Chao-Tung Tai 戴兆東 Junior Specialist

285. A Study on the Combined Application of Plant Growth Regulators and Herbicides to Improve Growth of Ratoon Cane and Chemical Weed Control

Houng-ian Veh 黄海區 Assistant Agronomist

Houng-jaan Yeh 葉鴻展 Assistant Agronomist

286. Pork Myoglobin Extraction and Its Heritability Estimation

Cheng-I Liu 劉正義 Junior Specialist

287. A Study on Crossbreeding of the Newly Imported Pietrain, Hampshire and Duroc Breeds

Chi Wang 王 傑

Junior Specialist

288. Effects of Lysine, Methionine and Energy Intake on Milk Secretion and Reproductive Performance of Sows during Pregnancy and Lactating Periods

Lie-Hwa Su 蘇麗華 Junior Specialist

14. Taiwan Agricultural Research Institute

(1) Class A

289. The characteristics and Genesis of Paddy Soils in Central Part of Taiwan Ku-Wing Leung 梁鉅榮 Senior Soil Specialist

(2) Class C

290. A Study on the Effect of Ethylene Absorbents in Sealed Polylene Bags to Delay the Climacteric Rise of Papaya Fruits during Storage

Der-nan Wang 王德男 Specialist

291. A Study on Effects of Cover Crops and Mulching on Steep Slope Orchard **Hsiao-Tsai Wang** 王孝才 Technical Assistant

292. Studies on Taxonomy, Evolution and F₁ Hybrid Seed Production of Pepper A-Chang Chiou 邱阿昌 Specialist

293. Comparison of the Effect of Growing Conditions on Yield and Component of Yield between Japonica and Indica Varieties of Rice

Ming-hwa Lin 林明華 Technical Assistant

294. The Characteristics and Genesis of Paddy Soils in Central Part of Taiwan Ching-Yuan Lai 黎靜韻 Soil Specialist

295. Evaluation of Combining Ability and Lysine Content of Opague-2 Inbred Lines of Maize

Tsong-chia Lee 呂宗佳

Junior Specialist

296. A Study on the Use of Nitrification Inhibitor for Crop Production: I. A Study on the Effect of Nitrification Inhibitor Used in the Direct Sowing Paddy Field and Rotation Irrigation Pady Field

Chi-Pen Wen 溫西濱

Junior Specialist

297. Studies on the Productivity and Its Relation with Soil Chemical Properties of the Main Soil Groups in Taiwan

Tze-Shun Lee 李子純

Specialist

298. A Study on Inorganic Nutrient Absorption of Green Asparagus and Its Relationship to Yield

Wen-Lian Huang 黄文良

Junior Specialist

299. The All Possible Cross-combinations of the Selected Progenies
Fang-Ping Young 楊方平 Specialist

300. Studies on the Absorption and Translocation of Organo-arsine Compounds in Rice Plants

Hsin Su 蘇 昕

Assistant Specialist

(3) Class D

301. A Study of the Ecology of Curvularia Spp. and Their Pathogeny to Rice Plant

Chi-lu Chu 朱啓魯

Technical Assistant

302. Studies on the Relationships between the Water Absorption and the Different Fertilizer Levels in Soybean

Tiao Lan 藍 調

Specialist

303. Experiment on the Interplanting of Papaya in Pineapple Field
Yun-Jui Hwang 黃榮瑞 Assistant Horticulturist

304. Studies on Integrated Control of Aleurocanthus spinferus Quaintance Kuo-Chia Wu 吳國家 Junior Entomologist

15. Taiwan Forestry Research Institute

(1) Class A

- 305. The Floristic Relationship of the Islets to the Main Island of Taiwan

 Tsing Liu 柳 稽 Senior Specialist
- 306. Investigation on the Phreatophytes in Tahan River Downstream Watershed Lo-min Chang 章樂民 Senior Specialist
- 307. Mixed Hardwood Kiln Drying Experiment: The Kiln Drying Experiment of Hardwoods Grown in the Northern Part of Taiwan

 Tze-Ping Ma 馬子斌 Senior Specialist
- 308. A Provenance-progeny Test of Cunninghamia Complex
 Ta-wei Hu 胡大維 Senior Specialist
- 309. A Study on the Methods of Improving the Stands of Natural Broad-leafed Forest in Taiwan: II. Growth of Plantation Established after Timber Conversion

Liang-pin Hung 洪良斌

Senior Specialist

(2) Class B

- 310. Estimation of Genetic Parameters and Selection Index in *Cunninghamia* Sp. Chin-ming Lu 呂錦明 Specialist
- 311. Experiment on Manufacturing of Chamaecyparis taiwanensis Laminated Floor Zu-Lin Sun 孫祖林 Senior Specialist

(3) Class C

312. Variation in the Growth of Vegetatively Propagated Progenies of Cunninghamia lanceolata var. konishii from Different Regions

Sang-Gen Hwang 黄松根

Specialist

313. The Correlation between Sapwood and Heartwood Growth of Acacia confusa in Various Habitats

Kun-kan Hwang 黃崑崗

Specialist

314. The Formation of Female Strobili and the Development of Cone in Pinus taiwanensis Hayata

Jen-Li Wang 王仁禮

Specialist

315. The Application of Different Range Sampling Method in Man-made Forest Survey in Taiwan

I-An Jen 任懚安

Specialist

316. Pulping and Papermaking Experiments on Conversion Hardwood Mixtures: II. Pa Hsien Shan Working Cycle

Yun-Chuan Ku 谷雲川

Specialist

317. Studies on the Retardant of Plywood Treated with Six Chemicals and Their Influence of Gluing Properties

Tang-chou Hsieh 謝堂州

Junior Specialist

318. Form Table and Volume Table of Tree Species of Lauraceae in Taiwan Sung-Fan Chen 陳松蕃 Specialist

319. A Study on the Interception of Rainfall of Swamp Mahogany (Eucalptus robusta Smith) Plantation

Chia-Sheng Pan 潘家聲

Specialist

(4) Class D

320. Natural Pigments: A Study on the Gardenias

Feng-chi Ho 何豐吉

Specialist Assistant

16. Wines Research Institute

(1) Class D

321. Gas Chromatography of Nonvolatile Organic Acids in Wines Wen-Chuan Chen 陳文川 Assistant Engineer

17. Tobacco Research Institute

(1) Class A

322. Studies on Air Pollution in Relation to the Metabolism of the Nitrogenous Compounds of Tobacco and Its Protective Methods

Sen-Tu Hsieh 謝森圖

Senior Specialist

(2) Class B

323. Studies on Methods of Transmitting Tobacco Leaf Curl Virus by *Bemisia tabaci*: Acquiring the Virus through Parafilm Membrane

Yu-Cheng Chang 張玉珍

Senior Specialist

(3) Class C

324. Studies on the Chlorine Uptake of Tobacco and Its Controlling Measures
Pin-Kuen Hsu 許炳坤 Senior Agronomist

325. Breeding Tobacco with Low Nicotine Content
Tsing-hua Chiang 蔣青華 Agronomist

326. Studies on Technique for Seed Production for New Released Variety T.T.4

Keh-Chang Ling 凌克昌 Agronomist

327. The Effects of Mammoth Gene on the Inheritance of Certain Agronomic Characters of Flue-cured Tobacco

Sheng-yen Chen 陳盛炎

Agronomist

328. A Study on the Manganese Nutrition of Flue-cured Tobacco in Taiwan Chin-Fun Tsai 蔡清棻 Agronomist

329. Partial Purification of Tobacco Vein-banding Mosaic Virus
Way-Tung Chin 金慧道 Plant Pathologist

330. Genome Analysis of Tobacco Interspecific Hybrids
I-Nan Ueng 翁義男 Agronomist

331. Effects of Ozone on Tobacco Weather Fleck Preconditioned by Light and Temperature

Jen-Kuei Wu 吳壬癸

Agronomist

332. The Relationship of Root Knot Nematodes to the Bacterial Wilt in Tobacco Wen-Yen Chen 陳文彦 Plant Pathologist

(4) Class D

333. Studies on Air Pollution in Relation to the Metabolism of the Nitrogenous Compounds of Tobacco and Its Protective Methods

Mo-Yuan Chen 陳茂淵

Junior Agronomist

18. Taiwan Fishery Research Institute

(1) Class B

334. Studies on the Investigation of the Coral Fishing Ground
Chien-Lung Liu 劉建隆 Chief Research Officer

(2) Class D

335. Age, Growth Maturity and Spawning of Spanish Markerel in Taiwan Strait
Tzong-shong Chen 陳宗雄 Junior Specialist

336. Stomach and Stomach Content of Spanish Mackerel
Sing-hwa Hu 胡奥華 Junior Specialist

337. Length-weight Relationship and Migration of Spanish Mackerel in Taiwan Ch'ung-Hui Ch'en 陳春暉 Junior Specialist

19. Kaohsiung District Agricultural Improvement Station

(1) Class C

338. A Study on Soybean Harvesting and Binding Machine
Thai-sung Lee 李再順 Specialist

(2) Class D

339. A Study on Low Seed Setting of Early Maturing Rice Varieties and the Improvement of Its Cultural Practices in the First Crop Season Fu-Hsiung Lin 林富雄 Technical Assistant

340. Tests for Rice Varietal Resistance to Transitory Yellowing
Ming-Der Chiu 邱明德 Assistant Agronomist

341. A Study on the Efficiency of Selection at Various Spacings in Hybrid population of Soybean

Ah-Tien Hung 洪阿田

Junior Specialist

342. Studies of Summer Vegetables on Soilless Culture in Southern Taiwan Ying-Ren Chen 陳英仁 Junior Specialist

20. Tainan District Agricultural Improvement Station

(1) Class B

343. Studies on Crude Fat and Crude Protein Content and Residues in Soil after Application of Herbicides in Dryland Crop Field

Chin-sheng Hsu 徐進生 Senior Specialist

(2) Class C

344. Comparison of Pathogenecity between S. miscanthi and S. sacchari
Shin-chi Chang 張新吉 Senior Specialist

345. Studies on Pollination Method and Fertility Percentage of Sunflower (Helianthus annuus, L.)

Sang-ian Hsieh 謝桑煙

Specialist

(3) Class D

346. A Study on Powdery Mildew of Sunflower

Hsin-Cheng Fang 方新政 Junior Specialist

347. Studies on Crude Fat and Crude Protein Content and Residues'in Soils after Application of Herbicides in Dryland Crop Field

Shui-Ho Cheng 鄭隨和

Junior Specialist

348. Method for Saving Water and Fertilizer in Planting Cantalope on Coastal Sand Soil

Hu-Yen Huang 黄和炎

Agromist

21. Taichung District Agricultural Improvement Station

(1) Class C

349. Varietal Resistance to Yellow Dwarf of Rice

Ching-chung Chen 陳慶忠

Junior Specialist

350. Studies on the Forecasting Technique of the Rice Blast Disease (Pyricularia oryzae CAVARA)

Huoo-Shuh Ho 何火樹

Junior Specialist

22. Taiwan Seed Service, Provincial Dept. of Agriculture and Forestry

(1) Class B

351. Studies on the Genetics and Physiology of Incompatibility Lines in the Yehsen Cabage

Tzay-Fa Shen 沈再發

Senior Speciaist

(2) Class D

352. Studies on the Use of Hybrid Breeding in the Tomato Stigma Pattern: I.

Maiw-Ling Ho 何妙齡 Technical Assistant

353. Studies on the Phenomena and Reasons of Decreasing Germination Rate of Triploid Watermelon after Storage

Yih-Horng Chang 張義弘

Technical Assistant

354. A Study on Embryo Culture-breeding Hybrid of Brassica pekinesis Crosses with Brassica oleracea

Jen-Shiu Shih 徐仁修

Junior Specialist

23. Taiwan Tea Experiment Station

(1) Class B

355. A Study on the Relationship between Micro- and Macro-nutrient Content of Different Soil Profiles and These Elements Contents in the Leaves with a View to Making Diagnostic Utility

Hwi-min Chu 朱惠民

Senior Specialist

24. Provincial Research Institute for Animal Health

(1) Class A

356. Studies on Lapinized Hog Cholera Virus: Virus Multiplication in Pigs Inoculated with Lapinized Hog Cholera Vaccine

Tsai-Chun Lin 林再春

Senior Specialist

(2) Class C

357. A Comparative Study of Antibiotic Sensitivity between Streptococcus agalactiae and Staphylococcus aureus of Bovine Mammary Origin

Shou-She Chen 陳守仕

Director

358. Pathological Changes of Marek's Disease Occurred in Taiwan Cheng-Hsiung Lee 李正雄 Specialist

359. Studies on the Duck Hepatitis Virus Isolated in Taiwan
Yunng-Siu Lu 呂榮修 Specialist

360. Safety and Immunogenicity of Cell Line Passaged Newcastle Disease Virus in Chickens

I-Pou Chan 詹益波

Specialist

361. Studies on the Immunity Production of Hog Cholera Antibody in Sow's Colostrum

Shei-Ching Yang 楊喜金

Specialist

(3) Class D

362. Studies on the Production of SPF Pigs: Microbiological Studies on Gastrointestinal Tract of Secondary SPF Pigs

Yung-Pei Lin 林榮培

Junior Specialist

- 363. Studies on Improvement of Medium for Frozen-dried Lapinized HC Vaccine
 Yii-Shung Liu 劉義雄 Junior Specialist
- 364. Studies on Lapinized Hog Cholera: Adaptation of Lapinized Hog Cholera
 Virus in Rabbi Kidney Cell Culture by Bridging Cell
 Jei-Fu Su 蘇杰夫
 Junior Specialist

25. Taiwan Livestock Research Institute

(1) Class A

365. A Study on Nutritive of Petroleum Protein Locally Produced
Pang-Kan Lee 李邦淦
Senior Specialist

(2) Class B

366. Use of Diallel Mating and Reciprocal Recurrent Selection Method for Swine Breeding

Teh-cheng Chou 周德政

Senior Specialist

(3) Class C

367. A Study on the Beef Production System in Taiwan

Tsai-Ye Chow 周才藝

Director

368. Studies on the Ova Transfer in Cattle

You-Ming Su 蘇祐明

Specialist

369. The Effect of Nitrogen Source from Soybean Oil Meal, Poultry Excreta, and Urea at Different Levels on Rumen Metabolism

Mao-Chiang Chen 陳茂墻

Specialist

370. Intergeneric Crosses between Zea mays and Euchlaena mexicana

Specialist

(4) Class D

371. Effect of Enzyme Preparation on the Macerating Activity of Substrate and the Digestibility in Rats

A-Li Hsu 徐阿里

Technical Assistant

26. Yangmei Branch Station, Taiwan Livestock Research Institute

(1) Class C

372. The Effect Diameter of Straw Frozen Semen on the Bull Survival and Conception Rate

Teng-Tsao Hsu 許登造

Director

27. Taiwan Fertilizer Company

(1) Class A

373. Effects of Added Nitrohumic Acid and Nitrohumate Fertilizer on the Physicochemical Properties of Soils

Ching-Tsun Chiang 江景村

Researcher

374. A Research on the Use of Sulfur-coated Urea for Paddy Rice

Chah-Ching Lee 李珏清

Supervisor

28. Taiwan Serum Vaccine Laboratory

(1) Special Grant

375. The Immunogenicity of Photooxidized Formosan Snake Venoms: Preparation of Polyvalent Antiven in Using Photooxidized Multiple Antigens (Second Report)

Chien-Tao Huang 黃謙道

Deputy Director

(2) Class C

376. A Study on Conditions for Free-drying of BCG Vaccine: II. Effects of Adjuvants and Age of Cultures on Freeze-drying of BCG Vaccine

Chin-Wei Chou 周親維

Chief of Laboratory

377. The Immunogenicity of Photooxidized Formosan Snake Venoms: Preparation of Polyvalent Antiven in Using Photooxidized Multiple Antigens (Second Report)

Shen-Yu Lin 林勝育

Section Chief

(3) Class D

378. Dietary Studies in Mice

Yi-ve Hsu 徐亦薇

Assistant Technologist

29. Provincial Maternal & Child Health Institute

(1) Class A

379. Epidemiological Study on Syphilis in Taiwan

Kuang-Yu Fan 范光字

Director

30. Chia-Yee Solvent Works, Chinese Petroleum Corporation

(1) Class D

380. A Study on the Numerical Taxonomy of a New Hydrocarbon-utilizing Yeast No. 199

Su-Huei Chang 張淑惠

Chemist

381. Improvement of New Strain No. 199 for Petro-protein Fermentation Induced by N. T. G. (N-Methyl-N'-Nitro-N-Nitro-Soguanidine)

Hung-Ming Chang 張宏明

Chemical Engineer

31. Bureau of Commodity Inspection and Quarantine

(1) Class A

382. Studies on Potato Virus S and Its Strains in Taiwan

Sheng-teh Lee 李賢德

Senior Specialist

(2) Class B

383. Ecological Studies on the Banana Black Rot Pathogen, Botryodiplodia theobromae Pat.

Yun-peng Tsai 萘雲鵬

Senior Specialist

384. Studies on the Parasitism of Cotton Root-knot Nematode (*Meloidogyne incognita acrita*): I. Parasitism Related with the Storage of Second Stage Larva

Wu-ching Su 蘇武卿

Senior Specialist

(3) Class C

385. The Occurrence of the Bruchids in the Imported Beans and Their Damage to the Stored Beans in Taiwan

Lain-Sheng Chen 陳連勝

Specialist

386. Taxonomic Study of Mealybugs Collected in Taiwan
Tsu-Hsin Lin 林自新 Specialist

387. Pests of Stored Grain and Grain Products in Taiwan—Studies on the Biology of the Khapra Beetle, *Trogoderma granarium* Everts: I. Studies on the Effect of Temperature in Relation to the Stadium of the Khapra Beetle, *Torgoderma granarium* Everts (Coleoptera: Dermestidae)

Chun-Kuang Lin 林俊光

Specialist '

388. Studies on the Pathogens of Imported Vegetable Seeds: II. Effect of Soil Fungi on Infection and Pathogenesis by Seedborne Pathogens
Shih-Liang Lo 羅世良 Specialist

389. Studies on the Control Factors of Paedogenesis of Cecid Larva, Heteropeza pygmaea Winn.

Wan-Chun Lin 林萬成

Junior Specialist

390. A Review of the Mite Family Acaridae from Taiwan
I-Shying Tjying 曾義雄 Specialist

2. The Institute of Fishery Bishery, Ministry of Economic Affairs and National Taiwan University

(1) Class B

391. The Preliminary Investigation for Exploitation of Common Squid Resources
Ih-Hsiu Tung 童逸修 Senior Specialist

33. Chiayi Agricultural Experiment Station, Taiwan Agricultural Research Institute

(1) Class A

392. Studies on the Effect of Fruit Morphology Yield and Quality of Banana
Ching-Kuo Chu 朱慶國 Senior Specialist

(2) Class B

393. Studies on Transmission of the Feathery Mottle Complex of Sweet Potato in Taiwan

I-Lang Yang 楊一郎

Plant Pathologist

(3) Class D

394. Studies on the Inheritance of Resistance to Brown Planthopper and Green Leafhopper in Rice

Lung-che Chen 陳隆澤

Junior Specialist

34. Taiwan Fiber Crops Experiment Station, Taiwan Agricultural Research Institute

(1) Class A

395. Ecological Studies on One of the Most Important Dryland Soil-borne Plant Pathogens, *Rhizoctonia solania* Kuhn: IV. The Relation between Rhizosphere Microorganism and the Occurrence of *Rhizoctonia* Seeding Damping-off Chin-chyu Tu 社会社 Senior Plant Pathologist

(2) Class C

396. Studies on the Control of Rhizoctonia Damping-off of Flax and Jute by Mycophagous Nematode, Aphelenchus avenae

Yung-Hsiung Cheng 程永雄

Plant Pathologist

35. Taipei District Agricultural Improvement Station

(1) Class C

397. A Study on Rate and Method of Phosphate Application in the Poorly-drained Paddy

Kuo-En Kuo 郭國恩

Head of Station

36. Provincial Taiwan Tuberculosis Control Bureau

(1) Class C

398. A Study of the Defaulted Cases of Infectious Pulmonary Tuberculosis on the National Domiciliary Chemotherapy Program in Taiwan

Shi-tang Wu 吳錫鐺

Department Chief

C. ENGINEERING AND APPLIED SCIENCES 工程及應用科學

1. National Taiwan University

(1) Special Grant

- 1. The Hydrological Study of a Representative Basin on Taiwan Island
 Shih-ta Hsu 徐世大 Professor
- 2. Design and Implementation for Integrated Circuits Applied to the Arithmetical Unit of the Electronic Digital Computer

Sing Chang 張 煋

Professor

3. Propriety of Kirchhoff-Love Hypothesis in the Theory of Thin Shells
Tung-ying Wung 翁通楹 Professor

4. A Study on an Automatic Gain Control System with Noise
Chen-Fa Hsu 許振發 Professor

5. The Analytical Method of Ultimate Design of Prestressed Concrete Beam Professor Yu-Lin Wang 王玉琳

6. Computation of Flow in a Curved Open Channel -Investigation of Flow in a Curved Open Channel (3)-

Yen-Chi Lu 盧衍祺

Professor

(2) Class A

7. Test of Correlation between Ports and Piston Displacement of Two Stroke **Engines**

Tsu-nien Chin 金祖年 Professor

8. A Study on the Switching Characteristics of Insulated-gate Field-effect **Transistors**

Chu-Hsien Lee 李舉賢

Professor

9. The Study of Economic Operation in Power System by the Calculus of Variations

Yung-Lung Ma 馬雲龍

Professor

10. On the Fe-C-O-H Equilibrium Diagram

Chen-hsien Hwang 黄振賢

(3) Class B

11. On the Acceleration Transfer Functions at a Finite Time of Mechanical **Systems**

Shaw-Dong Chen 陳紹東

Associate Professor

12. Theoretical Analysis of Filtration Mechanism in Filter Press Associate Professor Wei-Ming Lu 呂維明

13. Research on Microwave Antennas: The Constant Slope Spherical Spiral Antenna with Nonuniform Excitation

Chun-Hsiung Chen 陳俊雄

Associate Professor

14. The Optimal Encoding of Chinese Characters Utilizing Digital Computers Associate Professor Wei-Tzen Yang 楊維楨

15. The Triaxial Characteristics of Consolidated Soils and Soft Rock: Case II. With Seepage Pressure

Ju-Jiang Hung 洪如江

Associate Professor

16. A Study on the Mathematic Model of Effective Rainfall of Upland Crops with Discussions on the Results of Applying the Model to the Southern Part of Taiwan

Yii-Soong Tsao 曹以松

Associate Professor

17. Analytical Kinematic Synthesis of 6-link Plane Mechanism for Function Generation

Deng-Gui Liaw 廖燈圭

Associate Professor

18. Experimental and Theoretical Determination of the Effect of Drilled Holes on Stress Concentration and Distribution around Notches

Dow-Shing Chang 張導雄

Associate Professor

19. Compiler and Assembler for a Simple Computer Language
Chung-Tao Chang 張仲陶 Associate Professor

20. Computer-aided Simplification of Logic Function

Hui-Jung Yu 于惠中

Associate Professor

21. A Study of the Dyeing Waste Treatment
Wan-Fa Yang 楊萬發 Associate Professor

(4) Class C

22. A Study of the Heater for Rice Cooperative Nursery
Hang-sun Chang 張漢聖 Lecturer

23. Feedforward Control of Distributed Parameter System
Shau-Ping Huang 黄孝平 Lecturer

24. Computer-aided Simplification of Logic Functions

Share-Young Lee 李學養 Lecturer

25. Retrieval and Display of Chinese Characters

25. Retrieval and Display of Chinese Characters
Chiu-fa Chen 陳秋發 Lecturer

26. Logical Design and Implementation of the High Speed and Low Cost Arithmetic Unit in a Digital Computer

Hing-sum Fung 馮慶深

Lecturer

27. A Nonnumerical Program System Applied to the Chinese Information Processing, Analysis, and Communication

Hoo-Cheng Liu 劉虎城

Lecturer

28. A Simulation of Small Scale Electronic Telephone Switching System Wei-Long Chen 陳維龍 Lecturer

29. Studies on Analysis of Storm Frequency and Drought Frequency of Watersheds in Taiwan

Ru-yih Wang 王如意

Lecturer

30. Low Cycle Fatigue Testing of Aluminium or Aluminium Alloy
Wu Sun 孫 吳 Lecturer

31. A Study of the Formability of Two Superplastic Alloys
Shun-tai Chang 張順太 Lecturer

32. Studies on the High Silicon Malleable Cast Irons
Chuang-Yeh Yang 楊創業 Lecturer

33. A Study on the Treatment of Dyeing Wastes

Sze-Kung Tseng 曾四恭 Lectur

2. National Chengchi University

(1) Class C

34. A Study of Production information and Control System
Ing-Feng Lin 林英峯
Lecturer

35. Quality Control over Industrial Products in Taiwan: The Problem and Counter Policy

Lecturer

3. National Tsinghua University

(1) Special Grant

36. Derivation and Application of Ion Optics Theory for the Design of the Ion Source System in the Ion Energy Analyzed Time-of-flight Mass Spectrometer Ching-Shen Su 蘇青森 Professor

(2) Class A

38. Determine Neutron Slowing Down Density in Hydrogen, Deuterium, Water, Heavy Water, and Polyethylene by the Monte Carlo Method

Peter Pu-Yuan Ma 馬步原

Professor

39. Design of a Mobile Educational Reactor—Study of Instrumentation Part

Der-Ling Tseng 曾德霖 Professor

(3) Class B

40. Measurement of Fast Neutron Spectrum outside THOR Beam Port
Teh-Li Yang 楊德禮 Associate Professor

(4) Class C

41. Optimum Mixed Condition for Polyethylene-Uranium Homogeneous Reactor

Jensen Tsai 萘健三 Lecturer

42. A Safety Logic System for Nuclear Reactor Control.
Bin Yu 虞 斌 Technician

43. Burnup Evaluation of Spent Fuels by Measuring the Reactivities at a Light Water Critical Assembly

Liq-Ji Yuan 袁立基

Lecturer

(5) Class D

44. The Fuel Handling Tool and Storage Container Design of Mobile Educational Reactor

Roun-Chu Chen 陳榮初

Technical Assistant

45. Studies on the Applications of Dinonyl Naphthalene Sulfonic Acid to the Treatment of Liquid Radioactive Wastes by Column Method

Chun-nan Hsu 許俊男

Technical Assistant

46. Measurement of Low-level Tritium in Nature Water

Tieh-Chi Chu 朱鐵吉

Technical Assistant

4. National Chiaotung University

(1) Special Grant

47. Charge Storage and Transfer of CCD

Chun-yen Chang 張俊彥

Professor

(2) Class A

48. The Optimal Excitation of Surface Waves and the Minimization of Transmission Loss Dut to Irregular Guiding Surface

Nan-Hung Kuo 郭南宏

Professor

(3) Class D

49. The Optimal Excitation of Surface Wave

Kunchou Lin 林坤洲

Assistant

5. National Chungyang University

(1) Special Grant

50. Correlation of Chemical Structure and Water Resistance of Epoxy Resin

Leo-Wang Chen 陳劉旺

Professor

(2) Class A

51. A Combined Electrical Sounding and Mapping Investigation in Taichung Basin and Its Interpretation

Han-Ying Lee 李漢英

Professor

(3) Class C

52. Frequency Analysis in Gravity Data of Taitung Area

Chieh-Hou Yang 楊潔豪

Lecturer

6. National Taiwan Normal University

(1) Class B

53. The Research of Applying Machine to Coal-getting on Economic and Technic Aspects

Ying-yuan Soo 蘇英源

Associate Professor

(2) Class C

54. Design of the Apparatus for Measuring the Relationship between the Working Temperature and Timing Advance on a Gasoline Engine

Nan-chen Wu 吳南政

Lecturer

7. National Chengkung University

(1) Special Grant

55. A Study on the Sensitivity of Control Systems in Chemical Industry
Yen-Ping Shih 石延平 Professor

56. A General Solution of Structural Mechanics

Bae-jian Lin 林柏堅

Professor

57. Polarography of Uranyl Complex with P-aminothio-phenoxyacetic Acid in Dimethyl Sulfoxide Solution

Tsai-Teh Lai 賴再得

Professor

58. On the Preparation and Electronic Properties of the Glassy Semiconductors: Part III. S, Te, and Se Mixed System Semiconductors

Shean-Joung Chen 陳顯榮

Professor

59. The Trial of Development of Architectural Theory since the Beginning of This Century

Cheng-Tzu Ho 賀陳詞

Professor

(2) Class B

60. The Effect of a Barrier on Wave in Shallow Water
Ching-Ton Kuo 郭金楝 Associate Professor

61. A Study of the Efficiency of Rotary Thermal Diffusion Columns

Ho-Ming Yeh 薬和明 Associate Professor

62. A Study of the Degradation and Thermal Oxidation of Ethylene-vinyl Acetate Copolymer in the Compounded System by pH Method

Jenn-Hwa Wang 王振華

Associate Professor

(3) Class C

63. Optimization of Chemical Reactor with Catalyst Decay
Tse-Chuan Chou 周澤川 Lecturer

64. The Synthesis of Transfer Impedance of Unbalanced RC Electrical Networks
Chi-Wu Mao 毛齊武 Lecturer

 66. A Study on the Spectrographic Characteristics of the Shale in Miocene and Pliocene Formations in Northern Taiwan

Fu-Su Yen 顏富士

Lecturer

67. Investigation on Techniques Important of Taiwan Textile Dyeing Industries and Its Quality Control

Mei-Jen Chen 陳美仁

Lecturer

68. Management Information Systems for Business
Yung-Kang (Grace) Feng 馮永亢 Lecturer

(4) Class D

69. A Study on the Sensitivity of Control Systems in Chemical Industry
Tuong-Yi Han 韓忠義 Assistant

70. Fabrication of Optoelectronic Memory and Switching Devices Preparation and Properties of GaP-Ge Heterojunctions

Tsung-Yuan Hsu 徐宗元

Assistant

71. The Effect of a Barrier on Water Wave in Shallow Water

Shi-Chuan Lin 林西川

Assistant

8. National Chunghsing University

(1) Special Grant

72. A Study on the Causes of Landslides at Pin-zau-nair Area

Heng Chou 周 恒

Professor

73. Separation of Th, La and Its Isotopes by Electromigration Using a Cation Exchange Resin Membrane

Chung Chang 張 駿

Professor

(2) Class A

74. Development of a Small Peanut Combine: Second Step. Design and Manufacture of a Threshing Mechanism and Traveling Device, Hydraulic System of a Small Peanut Combine

Hsiao-Tzu Chen 陳孝祖

Professor

(3) Class B

75. A Study on the Tensile Stress of Roots System for Conservation Grass in Taiwan

Tseng-Tang Chang 張曾讜

Associate Professor

76. A Preliminary Study on Hemodynamics

Chih-wu Ho 何智武

Associate Professor

77. A Study on Rainfall Measurement in Mountain Area: II. Causes of Erratic Measurement and the Method for Calculating the Correct Rainfall

Yung-Cheh Chiang 江永哲

Associate Professor

78. Sprouting Experiments on the Vegetative Stakes for the Slope Stabilization in Taiwan

Cheng-ping Yen 顏正平

Associate Professor

(4) Class C

79. An Experiment on the Sprouting of Bamboo Stakes for Slope Stabilization in Taiwan

Ching-Zui Lee 李慶瑞

Lecturer

(5) Class D

80. Electro-trilateration and Computer Calculation

Chung-Yuii Ouyang 歐陽鍾裕

Assistant

81. A Study on Rainfall Measurement in Mountain Area—A Newly Designed Storm Rain Gauge under Strong Wind

Lewis Sheng Liang 梁 昇

Assistant

9. Provincial College of Marine and Oceanic Technology

(1) Class B

82. A Study on the Hydrodynamic Properties of Midwater Trawl
Yau-Shou Chou 周耀然 Associate Professor

(2) Class D

83. A Study on the Improvement of Trawl Used in Taiwan (Part II)

Chuan-Hung Ho 何灌法 Assistant

10. Chungcheng College of Science and Engineering

(1) Class A

84. Heat Transfer and Free-convection Effect in a Vertical Annulus
Kuang-Ming Liu 劉光銘 Professor

85. Linear Graph Model of Thermal Radiant Enclosure with Absorbing Medium
Shih-Lu Chang 張式魯 Professor

86. Ship's Transverse Strength Analyzed by Matrix Method and Digital Computer Cheng-chih Shao 邵承之 Professor

(2) Class B

87. An Experimental Study of the Plugging Effect of Cylindrical Gas Bubbles in Small Glass Tubes with Liquid Flow

Pu-Tse Shaw 邵普澤

Associate Professor

(3) Class C

88. Non-destructive Test for Buckling Load

Rong-Shaw Chu 曲榮紹

Instructor

89. Computer Mapping

Tuan-chih Chen 陳端墀

Instructor

11. Chinese Army Academy

(1) Class C

90. Design and Fabrication of Integrated Thin Film Distributed Networks

Jau-Yien Lee 李隆殿 Instructor

12. Chinese Air Force Academy

(1) Class C

91. Simplified Flow Graph Technique for the Solution of Multiloop Multisampler Sampled-data System

Hao-chang Wu 吳浩昌

Instructor

13. Fujen University

(1) Class B

92. Queuing Theory and Its Application

Sheng-Ping Lin 林昇平

Associate Professor

14. Tunghai University

(1) Class B

93. Design and Analysis of a Combined Form of Stormer and Con-and-plate Type Viscometer

Shih-Hsueh Chen 陳世學

Associate Professor

94. A Study of Air Flow Related to Architecture

Gene Tang Wang 王錦堂

Associate Professor

15. Tamkang College of Arts and Sciences

(1) Special Grant

95. Synthesis of Derivatives of 3,5-dihydroxyhexanoic Acid
Yun-Shan Lin 林雲山 Professor

(2) Class C

96. Investigation on the Crops Irrigation Planning in Tansui Area Sheng-Hsiung Lu 呂勝雄 Lecturer

16. Tatung Institute of Technology

(1) Class B

97. A Study on the Decay of a Plane Shock Wave
Ching-Fang Chen 陳慶芳 Associate Professor

17. National Taiwan Junior College of Fine Arts

(1) Class B

98. Albumin Data

Kunti Liu 劉功第

Associate Professor

18. Provincial Taipei Institute of Technology

(1) Class A

99. Mathematical Analysis of Reliability and Its Applications to Manufactured Products

Pe-Lin Chao 趙浡霖

Professor

(2) Class B

100. Investigation of Silencing Characteristics of Mufflers: Silencing Characteristics for Pure Sound and Exhaust Noise

Siuh-Zon Tsay 蔡旭容

Associate Professor

101. A Study on the Shear Strength of Soils under Compressive Forces and Shear Forces

Wen-Shiun Lee 李文勳

Associate Professor

102. A Study on Beneficiation of High Grade Clay from the Argilaceous Andesite Found in the Yangmingshan Area

Ching-Ting Wang 王金鼎

Associate Professor

(3) Class C

103. Pyrometallurgical Studies of Nickel-bearing Ore from Eastern Taiwan Siang-Chun Liu 劉祥鈞 Lecturer

104. Computer Programming of Synchronous Sequential Logic Network Synthesis **Yi-Ju Cheng** 鄭育儒 Lecturer

105. Stress Analysis of Tunnel Linings

Chin-kun Tsai 蔡金坤

Lecturer

19. Provincial Kaohsiung Institute of Technology

(1) Class A

106. A Study of Reinforced Concrete Cylindrical Shells with Grillage Stiffeners
Yaw-Nan Peng 彭耀楠 Professor

20. Radio Administration, Ministry of Communications

(1) Class B

107. A Study for the SPADE Demand Assignment System of the CGRA's Second Earth Station

Jin-tuu Wang 王金土

Engineer

108. Design of Satellite Communication Earth Station for INTELSAT-IV System
Pi-Hsou Chu 朱筆岫 Station Manager of Taipei Satellite
Communication Earth Station for
INTELSAT-IV System

21. Atomic Energy Council, Executive Yuan

(1) Class C

109. A Fortran IV Code for Fuel Cycle Analysis

Hai-chun Lu 呂海臺 Chief Technician

22. Taiwan Sugar Experiment Station

(1) Class A

110. A Simulation Study on Evaporation in Sugar Manufacture: I. The Effect of Main Variables on the Heat Transfer Coefficient

Shyang-Ling Sang 桑祥麟

Senior Chemist

(2) Class B

111. Effect of Bagasse Variation from the Storage Cause on the Process of Bagasse Particle Board-making and a Study on the Process Control

Huai-Ching Huang 黄槐青 Senior Chemical Engineer

(3) Class C

112. Studies on the Liquor Carbonatation and Its Filterability of Taiwan Raw Sugar

Ying-Chung Cheng 鄭應春

Chemical Engineer

113. A Study of Special Instrument for Determining Soil Moisture Content
Ye-Hsiong Chang 張雅雄 Civil Engineer

(4) Class D

114. Simulation Study on Evaporation in Sugar Manufacture: I. The Effect of Main Variables on the Heat Transfer Coefficient

Shih-An Lu 呂世安 Chemical Engineer

23. Taiwan Forestry Research Institute

(1) Class A

115. Manufacture of Hardwood Paperboard
Shun-Chung Chao 趙順中 Chief of Division

(2) Class C

116. Studies on the Chemigroundwood Pulping with Taiwan Hardwood Shaw-Ching Chen 陳紹慶 Senior Specialist

24. Aeronautical Research Laboratory, Aero-industry Development Center

(1) Class A

117. A Bonded Cylinder Subjected to End Impulse

Ti-Chiang Lee 李迪强

Director

118. On the Transverse Vibration of the Fuselage-wing Combination of XT-CH-1A Aircraft during a Symmetrical Pull-up

Chia-Yuan Lee 李家騵

Deputy Director

119. Aspects of the Development of Adhesion Application on the Nature of Attractive Forces and Surface Energy

Abel Chia-long Chu 朱家龍

Deputy Director

120. An Analysis of Parameters Affecting Engine Eductor Performance for a Turboprop Engine

Kung-Heng Chen 陳公衡

Assistant Chief of Dept.

(2) Class B

121. Modified Vortex-lattice Method for Calculating Aerodynamic Coefficients of a Subsonic Airplane

Hsichun M. Hua 華錫鈞

Chief of Department

122. Modification of PL-1B Trainer for Agricultural Applications
Shih-chun Chiang 江詩羣 Chief of Section

(3) Class D

123. Vortex-lattice Method of Calculating the Airload Distribution on Elastic Airplane Wing

Yun-shung Chung 鍾雲祥

Researcher

124. Modification of PL-1B Trainer for Agricultural Applications

So-Lin Yen 閣鎖林

Researcher

125. The Study of Hybrid Rocket

Shing-kuei Wang 汪與貴

Researcher

25. Research Institute for Wines, Taiwan Tobacco & Wine Monopoly Bureau

(1) Class B

126. A Study on Concentrate of Wine by Freeze-concentration Method
Chick-Song Fang 方之松 Chief Chemist

127. Determination of Carboxylic Acids in Wines by Formation of Ferric Hydroxamates

Sheng-Wei Chao 趙生偉

Chief Engineer

(2) Class D

128. Budding Rate of Saccharomyces Determined under Electron-microscope during the Fermentation of Champagne Wine as Related to the Content of Ethyl Alcohol and Esters

Ching-chen Hung 洪景辰

Technical Assistant

129. A Study on Pretease and Amylase Produced in Wheat Koji Used for the Fermentation of Shaoshing Wine

Chuan-I Yeh 葉全益

Technical Assistant

130. Aspergillus Oryzae AOLD: Utilization of Aspergillus Oryzae AOLD to Prepare Rice Koji for the Saccharification of Barley and Manufacture of Whisky

Chuen-Shang Liou 劉春上

Technician

26. Taiwan Institute of Environmental Sanitation

(1) Class A

131. A Study on CO and HC Emission from Motor Vehicles

Vee-Hsin Wei 魏維新 Chief of Section

132. Temperature Effect on the Digestion of Nightsoil Treatment
Mei-Chan Lo 羅美棧 Deputy Director

(2) Class B

133. Studies on the Removal of Pesticides Residue in Water
Yuan-Shao Shen 沈元肇 Chief of Section

(3) Class D

134. A Survey and Study on CO Emission from Gasoline Engine
Zen-tsee Chen 陳健次 Technical Assistant

135. Studies on the Removal of Pesticides Residue in Water
Chung-jen Wang 王重仁 Technical Assistant

27. Chinese Petroleum Corporation

(1) Class A

(2) Class C

137. The Flexible Action of Subsea Hydraulic Connector with Relation to the Positioning Problem of Offshore Drilling Vessel

Ron-tuon Kuo 郭龍宗

Drilling Supervisor

138. The Study on the Synthesis of Petroleum Resin
Chung-Teh Wu 吳峻德 Chemical Engineer

28. Chia-Yee Solvent Works, Chinese Petroleum Corporation

(1) Class A

139. A Study on the Determination of Linear Blending Numbers and Linear Blending Volatilities in Blending of Multicomponent Blending Stocks

Foo-Long Chen 陳福隆 Head of Department

(2) Class B

140. The Study on the Catalytic Cracking of C₁₀-C₁₄ Normal Paraffins

Yuen-pei Chou 周元培 Project Researcher

141. A Study on Petroleum Microorganisms Which Produce Citric Acid

Chuan-Hsian Lee 李全相

Deputy Director of Department

142. A Study of Growth Stimulators for the New Strain No. 199 in Petro-Protein Fermentation

Ching-song Lee 李清松

Chemical Engineer

(3) Class C

143. Studies on Continuous Fermentation to Produce Single-cell Protein by Candida 25

Chi-sheng Wu 吳奇生

Chemical Engineer

29. Bureau of Commodity Inspection & Quarantine

(1) Class B

144. Polyblends of Poly Vinyl, Chloride & Nitrite Rubber Shien-Pin Chen 陳顯彬 Engineer

(2) Class C

145. Research for Strategy of Domestic Commodity Inspection
Tze-Chian Liu 劉子鑑 Consultant

30. Union Industrial Research Institute

(1) Special Grant

146. Molecular Weight Distribution of Polyolefine-Products Manufactured in Taiwan

Wei-wen Hsu 許巍文

Chief of Laboratory

147. Effects of Pelletizing Factors on the Structure and the Activity of Carbon Monoxide Conversion Catalysts

Chien-Chou Shih 施鑑洲

Chief of Laboratory

148. Gamma-ray Induced Gaseous Phase Polymerization and Copolymerization of Vinyl Monomers in Bagasse

Ung-Ping Wang 王文濱

Chief of Laboratory

149. Graft Copolymerization of Vinylchloride on Ethylene-vinylacetate Copolymer Modified with Ethylene or Propylene

Wen-Shi Lin 林文喜

Research Chemist

(2) Class A

150. A Study on Ni-Zn Ferrite: II. Effect of Additive

Tao-Yu Cheng 程道腴

Chief of Laboratory

151. IR and NMR Study of the Composition, Tacticity and Sequence Distribution of Poly (vinyl chloride vinyl acetate) Copolymer

Kuei-Shih Chia 賈魁士

Deputy Director

152. Studies on Hydrogenation of Lard Oil

Wan-Chiu Chen 陳萬秋

Chemical Engineer

153. Effect of Defect Type Structure on the Activity of Iron-oxide Catalyst

Chang-Hou Hsu 徐長厚 Chemical Engineer

154. Investigation on the Cold Press Molding of Fiber Reinforced Plastics (FRP)

Ren-Dow Lo 羅仁道 Chemist

(3) Class B

155. Studies on Submerged Culture of Basidiomycetes

Assistant Chief of Laboratory

31. Metal Industries Research Institute

(1) Class B

156. Development of Manufacturing the Iron Base Machine Parts by the Application of Powder Metallurgy: Manufacture of High Strength and Low Cost Machine Parts

Ting-Kwei Hsu 許廷珪

Research Fellow

(2) Class C

157. A Study on Nickel-cobalt Electroforming Process

Tsow-Chang Fu 傅兆章

Assistant Research Fellow

158. A Study on the Application of Operations Research and System Analysis
Techniques to Physical Distribution Problem in a Firm (1)

Hsiung-Fei Kao 高熊飛

Assistant Research Fellow

(3) Class D

159. The Demand and Supply of Special Steel in Taiwan

Chih-Kang Wang 王志剛

Assistant Researcher

32. Telecommunication Laboratories, Ministry of Communications

(1) Class B

160. On Optimum Transmission of Analog Signal over Digital Channel

Teh-Sheng Chen 陳德勝 Senior Research Engineer

(2) Class C

161. A Study on the Supervisor and FORTRAN Compiler of IBM 1130 Computer System

Jun-Wun Jou 周俊文

Research Engineer

162. Precise Frequency and Time Comparison with VLF Signals
Wan-Kao Hu 胡萬考 Engineer

163. On the Morphology of Geomagnetic Micropulsation at Kau-Yung, Taiwan
Chung-Yauw Yeh 葉忠耀 Engineer

33. Taiwan Area Freeway Construction Bureau

(1) Class B

164. A Study of the Dynamic Behavior of Highway Bridges under Moving Loads

Chi-Tung Yeh 葉基棟

Senior Engineer

165. Stress Analysis of Deck-type Stiffened Arch Bridges (Considering Axial Deformation of Verticle Members)

Chin-Yau Yang 楊欽耀

Senior Engineer

166. Catiozol Base Stabilization

Ming-Soung Kou 郭明松

Senior Engineer

34. Water Resources Planning Commission

(1) Class A

167. A Study of Land Subsidence on Shungshan Formation in Taipei Basin

Yingtang Yang 楊應塘 Senior Specialist

(2) Class C

168. A Study on Ground Water Storage in Taipei Basin

Wan-Chuan Yang 楊萬全

Assistant Engineer

169. New Practice in Experimental Hydraulics

Yung-Ching Wu 吳永慶

Associate Engineer

170. New Practice in Experimental Hydraulics

Kei-Lou Chow 周克魯

Assistant Engineer

171. New Practice in Experimental Hydraulics

Jing-Jion Lin 林襟江

Assistant Engineer

35. Taiwan Fisheries Research Institute

(1) Class C

172. A Study on the Frozen Fresh Sea-urchin Roe
Shaw-nan Peng 彭紹楠 Specialist

36. Taiwan Water Conservancy Bureau

(1) Class B

173. A Study on Prediction of Drought Flow in Taiwan

Chi-pin Chang 張啓濱 Senior Engineer

37. Taiwan Shipbuilding Corporation

(1) Class B

174. A Study of Computer-aided Ship Structure Design: I. Longitudinal Strength Calculation and Stress Analysis for Ship Structure

Muh-Biau Chang 張木標 Chief of Department

D. HUMANITIES AND SOCIAL SCIENCES 人文及社會科學

1. Academia Sinica

(1) Special Grants

- 1. The Burials within the Yin Architectural Foundations in Area B, Hsiao-t'un Chang-ju Shih 石璋如 Research Fellow
- 2. Remarks on Works of the Occult Science of Prognostics of Anciant China
 P'an Ch'en 陳 槃 Research Fellow
- 3. The Annamese War of the Ch'ien-lung Period

 Kwang-Tao Li 李光濤 Research Fellow

(2) Class A

4. Formal Analysis of Japanese Family Structure
Pin-hsiung Liu 劉斌雄 Research Fellow

5. A Comparative Study of the Legend of Yin Kao-tsung's Liang-yin and the Initiation Ritual

Hsi-mei Yang 楊希枚

Research Fellow

6. Textual Criticism of the Ming-shih Kung-chen Shih-piao
Chang-chien Hwang 黄彰健 Research Fellow

7. A Survey on Hunan Dialects—Part of Regional Report (Part I)
Shih-feng Yang 楊時逢 Research Fellow

8. Kuan-tu: A Study of Social Change in a Suburban Community of Taipei Social Structure and Value System

Chung-I Wen 文崇一

Research Fellow

9. A Study of the Most Resourceful Areas for Grain Taxes during the Late Ming Period

Chi-hua Wu 吳緝華

Professor of National Chengkung University

10. Stocks, Flows, Growth, Portfolio Balance, and the Balance of Payments

Chau-nan Chen 陳昭南 Associate Research Fellow

(3) Class B

11. Yakup Bey and the Moslem Region

Ching-lung Chen 陳慶隆

Associate Research Fellow

12. On the Chinese Characters "SHIH," "CHU," "TSUNG," "PUH," "WU," and "I" in Archaic Forms and Their Relations with Official Titles

Heng-Yu Wang 王恆餘

Associate Research Fellow

13. Notes on the Chuang Chiao's Route of Military Expedition to Yunnan Hsiu-yun Sang 桑秀雲 Associate Research Fellow

14. Corrections of the Errors in the Explanatory Notes in the Old Manchu Documents of Ch'ing Tai Tzung Reign Re-copied during Ch'ien Lung Reign Hsueh-chih Li 李學智 Associate Research Fellow

15. The Frontier Military Cultivation of the Han Dynasty and Its Evolution
Tung-kuei Kuan 管東貴 Associate Research Fellow

16. The Rice in the Chinese Folk Belief Chi-wan Liu 劉枝萬

Associate Research Fellow,

17. Economic Growth and Manpower Redistribution in Taiwan
Wen-hui Lai 賴文輝 Associate Research Fellow

18. The Positions and Functions of the Manchus in the Central Government of Ch'ing China

Wen-shih Chen 陳文石

Associate Research Fellow

19. Collected Commentaries on the Kuo-yü, Part II

Yi-jen Chang 張以仁 Associate Research Fellow

(4) Class C

20. The Life of Women during Yin and Chou Dynasties as Seen from Paleography
Shih Heng Chia 賈士衡 Associate Research Fellow

21. Studies of the Bone SSŬ-Spatula in the Anyang Collection

Chung-yu Chen 陳仲玉 Research Technician

22. Kuantu: A Study of Social Change in a Suburban Community of Taipei Personality and Attitude Change

Hai-Yuan Hchu 瞿海源

Assistant Research Fellow

23. An Analysis of Portfolio Selection of Financial Institutions in Taiwan
Ching-I Ho 何清益 Assistant Research Fellow

24. Government Revenue Forecasting

Cheng-nan Chiang 江振南

Assistant Research Fellow

25. The Demand of International Reserves in Taiwan

Yung-nan Hsieh 謝勇男

Assistant Research Fellow

(5) Class D

26. A Discussion on the Problem of Race of Anyang Skulls from the Excavated Sites

Chun-yu Lin 林純玉

Assistant

27. A Study of the Reconstructed Oracle Bones

Yuan-lin Liu 劉淵臨

Assistant

2. National Taiwan University

(1) Special Grants

28. Educational Investment and Economic Development in Taiwan

Chien-sheng Shih 施健生

Professor

29. The formation and Use of Chinese Images in Selected Modern American Writings

Limin Chu 朱立民

Professor

30. A Study of Economic Prognosis

Kowie Chang 張果為

Professor

31. The Study of Freedom under Law; Background and Problems of an Idea in the Age of Greek City States

Chan Lien 連 戰

Professor

32. A Study in Economic Development Policy

Shi-fu Wang 王師復

Professor

33. The Doctrine of Hsün-tzu and Its Influence on the Scholars of the Han and Sung Dynasties

Chun-jen Tai 戴君仁

Professor

34. Excursion in the Influence of the Buddhist Thought and the Sutra-stories to Chinese Literature

Ching-Nung Tai 喜辭農

Professor .

35. The Rise and Fall of Tai-ping-tien-kuo and the Enlargement of the Chinese Local Governor's Power

Tson-Tong Li 李宗侗

Professor

36. An Econometric Analysis of the Effects of Fiscal Policy

Tzong-shian Yu 于宗先

Professor

37. The Feasibility of Regional Cooperation among South-east Asian Countries

Kuo-shu Liang 梁國樹 Professor

(2) Class A

38. The Secessionist Movement of the E. Pakistan

Robert Chu-kua Huang 黄祝貴 Professor

39. The Commercial Policies of Developed Countries with Regard to Imports of Manufactures from the Developing Countries

Yen Hwa 華 嚴

Professor

40. The Establishment of New Chinese Legal System and the Influences of Dr. Sun Yat-sen's Thought of Law

Shih-pin Yuan 袁世斌

Professor

41. An Estimate on the Standard of Living of Taiwan's People in 1991

Lung-hwa Kou **宽龍華**

Professor

42. Recent Changes in Labor Output in the Production of Major Crops in Taiwan
Chi-lien Huang 黄際鍊 Professor

43. A Study on Fishermen's Share of the Consumer's Dollar Spent for Selected Fishes in the Fish Production Areas in Taiwan

Chu-Yuan Wu 吳恪元

Professor

44. Forest Policy in Taiwan

Yi-Tao Wang 王益滔

Professor

45. The Megalithic Monuments of the East Coast of Taiwan and Southeast Asia
Wen-Hsun Sung 宋文薫 Professor

46. Li Hung-Chang (1895–1901)

Shou-kung Li 李守孔

Professor

47. The Typical T'ang Culture and the Typical Sung Culture

Lo-cheng Fu 傅樂成

Professor

48. The Origin of Ch'ien Ta-Hsin's Scholarship

Yu-sen Ho 何佑森

Professor

49. Introduction to the Manchu Text Version of Ch'i-chü-chu of Ch'ing Emperors
Chieh-hsien Chen 陳捷先 Professor

5U.	Annotations of the Prevalent Phrases o	
	Hsien-Kung Chu 曲顯功	Professor
51.	Han Yü's Family and His Friendship	
	Lien-Tien Lo 羅聯添	Professor
52.	British Attitude toward the Chinese Re	volution of 1911
	Tseng-tsai Wang 王曾才	Professor
53.	The Evolution of East-European New S	tates in the Inter-war Period
	Mai-hsien Lee 李邁先	Professor
54.	A Historical Research of Logic System	
	Tien-chung Tseng 曾天從	Professor
55.	Ssu Ma Kuang's Historiography and His Statesmanship	
	Jui-Han Lin 林瑞翰	Professor
56.	Historiography in the Early Ching Peri	iod
	Wei-yun Tu 杜維運	Professor
57.	The Chronological Biography of Chang-	hwa
	Wei-Ch'ing Liao 廖蔚卿	Professor
58	A Study on the Ten Plays of Li Yü (L	i Ong)
	Ching Chang 張 敬	Professor
50	A Survey of Maritime Legislation	
<i>.</i>	John Y. Kwei 桂 裕	Professor
	e de la companya de la companya de la companya de la companya de la companya de la companya de la companya de	
6 0.	A Study of Women Criminals Kan-Mei Chang 張甘妹	Professor
		Professor
61.	The Soviet Union and the Solidarity Conference of Peoples of Asia, Africand Latin America	
	and Latin America Shou-yao Wei 魏守嶽	Dueformer
	en en en eller i de la companya de la companya de la companya de la companya de la companya de la companya de	Professor
62.	A Study on the Price Movements of Ma	
	Chao-chen Chen 陳超塵	Professor
63.	The Actual Account of Dr. Sun Yat-sen	A Company of the Comp
	in the Founding of the Republic of Chin	na (from the Tung Ming Hui to th
	Kuomingtang) Kang Lo 羅 剛	Professor
C i		Professor
υ4.	The Study of Socialization with a view of Changley Change	
•-	Chen-lou Chu 朱岑樓	Professor
65,	Economic Analysis on Prices of Main F	
	Te-Tsui Chang	Professor

66. The Role of Financial Institutions in Taiwan Economic Development
Chia-Fan Lin 林葭蕃 Professor

(3) Class B

67. Money in a Multi-sectoral Model of the Business Cycle

Chen Sun 孫 蹇

Associate Professor

68. An Econometric Analysis of 1964 Household Survey in Taiwan: The Permanent Income Hypothesis Revisited

Yung-san Lee 李庸三

Associate Professor

69. A Study of Psychological Values of the Verbs in the French Language
Wei-Shien Wang 王維賢 Associate Professor

70. Chinese Communists' Attitude toward the United Nations: A Retrospect and Outlook

Fu-shun Lin 林福順

Associate Professor

71. Socio-economic Implications in the Rapid Increase of Part-time Farmers in Taiwan

Ching-Yung Liu 劉清榕

Associate Professor

- 72. A Study of American System of Judicial Review, Process, and Behavior
 Fu Hu 胡 佛 Associate Professor
- 73. Directors and the Board of Directors in the Stock Corporations

 Fang-chih Ke 柯芳枝 Associate Professor
- 74. Rural Migration and Changes of Agricultural Population

 Tsong-shien Wu 吳聰賢 Associate Professor
- 75. A Study of Collingwood's Aesthetic Theory: The Development of Collingwood's Philosophy of Art

Tien-yi Chao 趙天儀

Associate Professor

76. A Study on the Polarized Policy of South Seas during the Early Ming Dynasty

Yit Sun Chong 張奕善

Associate Professor

77. A Study on Agricultural Credit Problems in Taiwan
Yu-kang Mao 毛育剛 Associate Professor

78. A Study of the Political Situation of Vietnam, 1965-67

Diana Fuh-mei Hsiao 蕭富美 Associate Professor

79. A Study on T'ang Poems in Singing

Yi Peng 彭 毅

Associate Professor

80. A Study on the Sino-Russo-Korean Relations 1884-1888—The Influence of von Möllendorff's Policy on Korean Diplomacy and the Russo-Korean Secret Treaty

Chi-Rui Sun 孫啓瑞

Associate Professor

81. What is the Notion of Quality?

Chi-wu Hsieh 謝啓武

Associate Professor

82. The Utilization of Motzu

Fu-mei Chou 周富美

Associate Professor

83. The Royal Library of the Sung Dynasty

Tsin-fu Chow 周駿富

Associate Professor

84. The Political Philosophy of Gustav Radbruch

Wen-Shyong Lin 林文雄

Associate Professor

85. A Study on the Political Thoughts and Statecrafts of the Chou Li
Ling-hsu Ho 賀凌虛 Associate Professor

86. Emperor Hsiao-tsung and His Times (1163-1189)

Teh-yi Wang 王德毅

Associate Professor

87. Family Authority Structure, Rearing Practice, and Children's Sense of Political Efficacy

Song-shi Yuan 袁頌西

Associate Professor

88. A Study of Modernization Process in a Formosan Town
Tseng-huei Fann 范珍輝 Associate Professor

89. Research on the Ethical Idea in the Political Thought in Ancient China **Kuang-teh Sun** 孫廣德 Associate Professor

90. A Study of Huang T'ing-chien's Literary Criticism

Associate Professor

91. A Study on the Imprisonment

Shang-sien Ho 何尚先

Associate Professor

(4) Class C

92. Studies on Corded Ware Culture of Taiwan

Shih-chiang Huang 黄土强

Lecturer

93. The Economic Thought and Policy of Northern and Southern Dynasties
Fu-chih Han 韓復智
Lecturer

94. Import Substitution, Export Expansion and the Economic Development of Taiwan, 1952-1970

Cheng-shun Chen 陳正順

Lecturer

95. A Study on Criteria of Truth Shu-tong Yang 楊樹同 Lecturer

96. The Structure and Sensitivity of Li Shang-yen's Erotic Poetry

Yu Fang 方 瑜

Lecturer

97. A Study to Historiography of Wei-Chin Period, Part II: Shih Shou Hsin Yu and the Personal Biography of Wei-Chin Period

Yau-Tung Lu 逯耀東

Lecturer

98. A Study of Wang Chung's Literary Viewpoint and Method of Criticism Jung-mao Liang 梁榮茂 Lecturer

99. Modern American Social Problems in Arthur Miller's Major Plays Chu-yun Chen 陳竺筠 Lecturer

100. A Study on the Liu Ke-Chuang's Poetic Theory Ch'i-Fang Huang 黄啓方 Lecturer

101. Oliver Cromwell, 1658-1958

Shao-yu Chiang 蔣孝瑀

Lecturer

102. The Ultra-nationalistic Movement in Middle Meiji Japan Yeng-chyh Lee 李永熾 Lecturer

103. A Study of Juan Ssu Tsung (Juan Chi)

I-Shou Ch'i 齊益壽

Lecturer

104. A Study of Yuan Chung-Lang Hung Shao 邵 紅 Lecturer

105. An Analysis of the Thought Structure in Part I of the Chuang Tzu Gun-ying Chen 陳鼓應 Lecturer

106. The Life and Thought of Wang Chung

Chin Shih 石 錦

Lecturer

107. Simplicity in Scientific Hypothesis

Cheng-hung Lin 林正弘

Lecturer

108. The Optimum Migration in Taiwan

Hong-chin Tsai 蔡宏進

Lecturer

(5) Class D

109. The Appealing Procedure of Administrative Proceedings in West Germany De-Fen Ho 賀德芬 Assistant

110. The System of Kung-chü in T'ang Period and Its Influence on the Study of Confucianism

Ming-Shih Kao 高明士

Assistant

111. A Study on Wang Wei's Poetry

Ching-ming Ko 柯慶明

Assistant

112. A Study of R.G. Collingwood's Aesthetic Theory (Part I: Collingwood's Theory of Philosophical Method)

Tien-Cheng Huang 黄天成

Assistant

113. Representative Suits of the Shareholder of a Stock Corporation
Chu Ke 柯 菊 Assistant

114. A Study of the Function of Communication in Human Relations
Te-yü Chen 陳德禹 Assistant

115. The Exaltation of the Worthy in Ancient China, Its Theory and Practice, 722-222 B.C.

Chün-chieh Huang 黄俊傑

Assistant

116. A Comparative Study on the Hsi-tsu-chuan in the Book of Change
Uen-fu Kuo 郭文夫 Assistant

117. Socio-economic Implications in the Rapid Increase of Part-time Farmers in Taiwan

Chao-lang Chen 陳昭郎

Assistant

3. National Chengchi University

(1) Special Grants

118. The United Nations and the Problem of Disarmament

Chien-min Chu 朱建民

Professor

119. A Study of Szű-shēng-têng-tzű

Ming Kao 高 明

Professor

120. Textual Criticism of Yi Wen Ivi

Meng-ou Wang 王夢鷗

Professor

121. Mathematical Theory of Montecarlo Method and Its Application
Niao-Pan Cheng 鄭堯粋 Professor

122. A Study of the "Chiao" (Guild) in Taiwan

Maurus Hao Fang 方 豪

Professor

123. An Analysis of the Aptitudes of the Public Junior High School Students in Taiwan

Ping-cheng Hu 胡秉正

Professor

124. A Study on the Political Tutelage of the National Government Chih-yuen Loh 羅志淵 Professor

125. The Velocity of Money in Taiwan, 1962-1971

Cheng-Fu Chang 張震復 Professor

(2) Class A

126. A Study of the Curriculum Development in American Universities

Shang-Yung Liang 梁尚勇 Professor

127. Models and Model-building in Comparative Public Administration

Joseph Ping-lun Jiang 江炳倫 Professor

128. A Study of the Supreme Court's Decisions
Yuan-zu Li 李元族 Professor

129. On Fulien Incident

Hsueh-chia Cheng 鄭學稼

Professor

130. A Study of "Ch'u-shih-cha" (A Text in Shih-chi, about the History of Ch'u)

Shou-ping Chang 張壽平 Professor

131. A Research of Reverencing the Law of the Constitutionalist
Shou-Liang Chu 朱守亮 Professor

132. The Relations between Soviet Russia and Asia, Part I Shih-hwan Meng 孟十還 Professor

133. The Construction of a "Chinese Composition Scale for Taipei Public Junior High School Students"

Shin Shui 水 心

Professor

134. An Analysis on the School System and the Academic Atmosphere of Tang Dynasty

Yunn Cheng 程 運

Professor

135. A Study on the Nature of Jobs and Their Needs for Adapting the Aptitudes and Interests in Vocational Guidance

Ching-kai Chang 張慶凱

Professor

136. A Study of Layout Reform of the Chinese Language Newspapers
Chia-shih Hsu 徐佳士 Professor

137. Content Analysis of the TV Programs in Taiwan.

Thomas Chan Lee 李 瞻 Professor

138. Problems and Possible Solutions of the Science Reporting and Writing in China

Chin-heng Yen 閻沁恒

Professor

139. A Study of Supreme Court's Decisions

Vincent Sze 施文森

Professor

140. A Study of the 1970 Revised Draft of the Communist China's Constitution Simpson Ching-Po Liu 劉清波 Professor

141. The International Court of Justice

Chih-shih Chen 陳治世

Professor

142. Study and Discussion of the Control of Local Self-government

Chang-chuan Hsiang 項昌權 Professor

143. A Study on the Political System of the Central Government in Chin Dynasty
Shu-fan Yang 楊樹蕃 Professor

144. An Analysis of the Structure and Mobility of the Ruling Class of the Former Han Dynasty

Ho-cheng Jui 芮和蒸

Professor

145. Psychological Approach and Political Analysis
Chun-po Yih 易君博 Professor

146. The Contributions of the Study of Political Culture to the Study of Politics
Lee Jinn Hwa 華力進 Professor

147. Influence of the Psychoanalysis on the Study of Political Behavior Chi-hua Ma 馬起華 Professor

148. An Analysis of Recruitment of Governors and General Governors in Ching Dynasty

Tsung-Mao Fu 傅宗懋

Professor

149. Optimal International Reserves

Ching-ing Hou Liang 侯金英

Professor

150. A Study on the Problems of Urban Housing

Hugh Min Tung 董修民

Professor

151. Ecology of Administrative Organization and Administrative Behavior

James K. Chiang 姜占魁 Professor

152. A Study on the Public-operated Economic Affairs of the Hsiang, Town and City in Taiwan

Ching-chiu Po 薄慶玖

Professor

153. Regional Economic Integration of the Southeast Asian Countries
Chuan-ting Lu 魯傳鼎 Professor

154. A Word-by-word Identification of the Liu-chiu-kuo as Recorded in the Sui History Being Okinawa instead of Taiwan

Chia-pin Liang 梁嘉彬

Professor

155. A Study of Educational Expenditures of All Levels in China: III. Educational Expenditures in Higher Education

Pao-tien Tsai 蔡保田

Professor

(3) Class B

- 156. The Chinese Communist Political Experience during Yenan Period
 Po-I Tsao 曹伯→ Associate Professor
- 157. A Study of "Freedom" in Hegel's Political Philosophy
 Chien-Chang Chu 朱堅章 Associate Professor
- 158. The American President's Influence on Legislation

 Jih-ching Yang 楊日青 Associate Professor
- 159. A Study of Seminar on Agricultural Techniques for African Technicians
 Feng Tai Yang 楊逢泰 Associate Professor
- 160. Educational Background of the Members of the Chinese Agricultural Missions to Africa

Sheng-pao Chin 金神保

Associate Professor

161. Cost-benefit Analysis and Public Investment

Ting-an Chen 陳聽安 Associate Professor

162. Chang Jih Luan's Journalistic Career: His Efforts and Achievements

Kuang-Lin Lai 類光臨 Associate Professor

163. A Study on Sources of Korean Eastern Sectarian Thought
Sang Geum Kim 金相根 Associate Professor

- 164. Halliday Macartney and Sino-British Relations, 1875–1905 **Wen-hua Cheng** 程文華 Associate Professor
- 165. A Study on the Cumulative Advertising Effects in Taiwan
 Christopher Y. Chao 趙 嬰 Associate Professor
- 166. Notes on the Navigation of Cheng-Ho's Chart: I. From China to Malaya Peninsula

Yu-Hu Hsu 徐玉虎

Associate Professor

- 167. A Comparative Study of the 4 Great Families of Wu Chün
 Chi-min Ho 何啓民 Associate Professor
- 168. An Analytical Study on Induction

 Chung-cheng Ting 丁崇貞

 Associate Professor
- 169. Case Study (A Study of the Supreme Court's Decisions)
 Yueh-Chin Hwang 黄越欽 Associate Professor

170. A Comparative Study of Election Supervision and Adjudication in Central and Local Elections in the Republic of China

Yu-Hsien Long 郎裕憲

Associate Professor

171. A Study of Local Administration System during T'ang Dynasty
Shou-nan Wang 王壽南 Associate Professor

172. An Essay on the Soviet Theory of Sources of International Law

Jen-Chieh Wang 王人傑 Associate Professor

173. The Source of Uyghurlar's Words

Yi-tang Liu 劉義棠

Associate Professor

174. The U.S. Federal Personnel Management System

Jun-shu Chang 張潤書

Associate Professor

175. A Study on the Conversion of Agricultural Land to Urban Uses and the Zoning Control to the Urban Fringe of Taipei City

Chih-chao Su 蘇志超

Associate Professor

176. Policy-making and Recommending Procedures of High Ranking Officials in the Court of Ming Dynasty

Chih-an Chang 張治安

Associate Professor

(4) Class C

177. A Study on the Techniques of Individual Guidance

Lecturer

178. A Study on Relationships between Ministry of Personnel and Personnel Administration Bureau

Ping-Song Shieu 許濱松

Lecturer

179. A Study of the Peiping Regime's Anti-U.S. Policy

John Chung Kuan 關 中

Lecturer

180. An Outline of Research Comparing Two Schools of Ming Classical Drama Rhythm and Vocabulary

Kae Leu 呂 凱

Lecturer

181. A Study on the Effectiveness of English Teaching in Language Laboratory
Bain-ye Ma 馬邊野 Lecturer

182. A Survey on the Opinions about the Subject-matter Selecting and Organizing of Civics and Moral Textbooks for Junior High School

Hsiu-wu Lee 李緒武

Lecturer

183. A Summary of a Comparative Study on Leadership between the Students of Urban Public Junior High Schools and Students of Rural Public Junior High Schools in Taipei District

Chi-tong Yang 楊極東

Lecturer

184. A Study on the Study Habits and Attitudes of Public Junior High School Students in Taipei City

Pang-chieh Lin 林邦傑

Lecturer

185. A Study of the Integrated Project Method of History and Geography in Junior High School

Chi-wen Chou 周繼文

Lecturer

186. A Study on Contemporary Foreign Policy of Japan

Hung-Yuan Chang 張宏遠

Lecturer

187. Türküt Culture and Its Influence on Tang Dynasty
En-Shean Lin 林恩顯 Lecturer

188. Traditional Culture and Modern Education on the Coastal Ami, Taiwan Chang-rue Yuan 阮昌銳 Lecturer

189. Financing and Accounting Aspects of Long-term Leases

Linda Li-yue Lin 林麗月

Lecturer

190. Application of Management by Objectives in Administrative Organization
Paul Hsian Su 蘇伯顯 Lecturer

(5) Class D

191. A Study on "Motivation Program in Management System"

Jih-Chyh Wu 吳樹熾 Assistant

192. A Survey on the Behavioral Problems of Public Junior High School Students in Taiwan

Wen-ying Huang 黃文瑛

Assistant

193. A Study on the Conversion of Agricultural Land to Urban Uses and the Zoning Control to th Urban Fringe of Taipei

Chen-I Huang 黄正義

Assistant

194. The Impact of Participating in the GATT on the Export of Republic of China

Lung-hsiung Chen 陳龍雄

Assistant

4. National Taiwan Normal University

(1) Special Grants

195. Education for Gifted Junior High School Students

Fu-ming Chia 賈馥茗

Professor

196. The Application of the Sentence Completion Method in Junior High School in Taiwan

Chien-hou Hwang 黄堅厚

Professor

197. Annotation of Bronze Inscription in Chou Dynasty (Volume IV)

Shih-hsien Lu 魯實先 Professor

(2) Class A

198. A Study of Ecological Environment and Education
Ping-lin Fang 方炳林 Professor

199. A Study on Chinese Educational and Cultural Policy and System
Chen-tsou Wu 任振楼 Professor

200. The Improvement of the Practices of Junior College
Pan-cheng Sun 孫邦正 Professor

201. A Comparative Study of Library Standards in Different Countries
Chen-ku Wang 王振鵠 Professor

202. A Comparative Study on the Tendency and Practical Effect of the Professional Curriculum on Physical Education in the Republic of China, America, West Germany, and Japan

Wen-Chung Wu 吳文忠

Professor

- 203. A Research on Basic Electronic Test Equipment: Program Instruction
 Cheng-Sien Hsu 許振聲 Professor
- 204. Syntactical Analysis of *Beowulf* in the Light of the Case Theory Ching-mai Yang 楊景邁 Professor
- 205. The Influence of Chinese Political Thought on Japan, Korea and Vietnam Yun-Ying Chu 朱雲影 Professor
- 206. Tu Fu's Works Chronologically Arranged

 Chen-Tong Lee 李辰冬 Professor
- 207. A Study on "Wu Geger" and "Heh Soong Sheng" in the Poems of the T'ang Dynasty

Shieh-you Chiou 邱燮友

Professor

208. A Study of the Parts of Speech in Shih-Ching
Lian-Chang Tai 戴璉璋 Professor

209. A Study on the Racial Unit of Bali and Ishihi Tribes of the Maternal Families of the Liao Emperors

Ful-ton Lee 李符桐

Professor

210. Geographical Changes of Agricultural Land Use in the Urban Fringe of Taipei

Kuo-Chang Chen 陳國章

Professor

211. A Study of the Rebellion Headed by Huang-Chao Shu-Tung Li 李樹桐

Professor

212. A Comparative Study of Senior High School System Kuo-ting Ley 雷國鼎 Professor

- 213. The Survey on the Opinions of Teaching in Dr. Sun Yat-sen's Thought Jyan Choy 崔載揚 Professor
- 214. A Comparative Study of the Relationship between Family and School Professor Ching-Jiang Lin 林清江
- 215. A Comparative Study of Technical Education Nan-Hau Hsu 徐南號 Professor

(3) Class B

216. A Study on the Present System of College Entrance Examination in the Republic of China

Yen-Ming Fang 方炎明

Associate Professor

217. The Study of the Thoughts of Modern Vocational Education and Its Influence in China

Shih-hsing Cheng 鄭世與

Associate Professor

- 218. A Study of Quotations from Mao Chuang in Ehr Ya Pei-Lin Yu 余培林 Associate Professor
- 219. The Study of Forms of Ching-wen in Shuo-Wen Yien-hui Hsu 許錟輝 Associate Professor
- 220. The Admiralty of the Late Ch'ing Period (1885-1895) Associate Professor Chia-Chien Wang 王家儉
- 221. A Study of the Japanese Army's Invasion of Taiwan in 1874 A.D. Associate Professor Chi-tsung Wang 王啓宗

(4) Class C

222. The Use and Abuse of Teacher's Authority Oscar Jiaw Ouyang 歐陽教 Lecturer

- 223. A Study of the Relationship between Behavioral Sciences and Education Kuei Hsi Chen 陳奎憙 Lecturer
- 224. Studies on Book of Change in the Dynasties of Wei and Tsin, and Southern and Northern Dynasties

Ching-Shiuan Hwang 黄慶萱 Lecturer

225. A Study of the Social Foundation of Educational Planning Kun-Huei Huang 黃昆輝 Lecturer

226. The Study of the Thought of Lieh-Tzu

Wan-shou Chuang 群萬壽 Lecturer

227. A Verification of the Remaining Historical Books of the Han Dynasty and the Three Kingdoms

Chi-lang Liao **廖**吉郎

Lecturer

228. A Critical Biography of Chou Pang-Yen
Chiao-Pen Lai 賴橋本 Lecturer

229. The Type and Structure of Rural Settlement in She-Tsu Si Area Fang-Hoei Chen 陳芳惠 Lecturer

230. Resistance to Temptation as Related to the Level of Anxiety
Yau-Huang Huang 黃遙煌 Lecturer

231. A Study of the Theories of Literature of the Ching Dynasty, 1821-1908 Cin-Hsiung You 尤信雄 Lecturer

(5) Class D

232. A Research for Basic Electronic Test Equipment: Program Instruction Cheween-Shye Shy 施純協 Assistant

5. National Chengkung University

(1) Special Grants

233. A Study on Management of Private Industrial Firms in Taiwan

Jasen Tsai-Shan Su 蘇在山 Professor

234. An Emendation of the Collected Notes on Shih Chih Chih-mien Shih 施之勉 Professor

(2) Class A

235. Sixty "Airs"

Hsueh-Lin Su 蘇雪林

Professor

(3) Class B

236. A Systematic Study in Organizational Behavior
Ping-pang Kung 冀平邦 Associate Professor

237. The Identity of the Place Names Confused in Chu Tzu

Wei-chieh Yu 于維杰 Associate Professor

(4) Class C

238. A Historical Discussion on Green Manure in Chinese Agriculture
Liang-cho Chen 陳良佐
Lecturer

6. National Chunghsing University

(1) Special Grant

239. A Study on Surety of Official and Judicial Bonds and on Bail Hsiau-Yuen Ho 何孝元 Professor

(2) Class A

240. Structure and Performance of Pesticide Market in Taiwan Terry Yu-Hsien Yu 余玉賢

241. A Study on the Production and Marketing Intention of Vegetable Farmers in the Central Taiwan

Shih-yih Liao 廖士毅

Professor

242. A Preliminary Survey and Analysis of Farmers' Readings on Farm Management and Reference Books in Taiwan

Chin-kun Lin 林金坤

Professor

243. A Study on the Agricultural Productions and the Taxes in South China during the Period of the Taiping Rebellion

Nai-Lung Huang 黃乃隆

Professor

244. An Economic Study of Oranges Marketing in Taiwan

Ching-Yu Lee 李慶餘

Professor

245. A Comparison of Laws against Dereliction of Duty of Government Employees in Both Ancient and Modern Times and Their Trends

Yung-yung Lin 林咏榮

Professor

246. The Problem of Land Expropriation in Taiwan

Chang Lai 來 璋

Professor

247. A Study of Rural Land Consolidation in Taiwan Hung-Yee Lee 李鴻毅 Professor

248. A Study of Social Insurance System in the Republic of China

Kuo-Chun Chen 陳國鈞

249. A Comparative Study of Chinese and American Probation System Yin-on Tsai 蔡蔭恩 Professor

(3) Class B

250. A Research on Kuo-Hsiang's "Chuang Tzu Commentary"

Huai Wang 王 淮

Associate Professor

251. A Study on the Elective Courses, Pre-service Training with the Relationship to the Employment of Public Middle School Graduates of Taichung City

Chi-Ho Hu 胡啓和

Associate Professor

252. A Study on Patent System and Patent Law

Werner Yu-fung Ning 第音豐 Associate Professor

253. A Study of Economic Scale in Livestock Production

Carson K. H. Wu 吳功顯

Associate Professor

254. A Study of the Operation of the Cooperative Hog Marketing Program of the Farmers' Association

Mau-Ying Tjiu 邱茂英

Associate Professor

255. A Study on European Social Legislation

Cyril Yih-hsiung Su 蘇義雄 Associate Professor

256. A Study on Agricultural Mechanization in Taiwan

Charles Che-ya Chen 陳澤亞 Associate Professor

(4) Class C

257. A Study on Logical Thoughts of Pre-Chin Thinkers
Kuei-Miau Chen 陳癸淼 Lecturer

258. A Study on the Functions of Wholesale Markets of Vegetables in Taichung Chiou-Ren Chen 陳秋仁 Lecturer

259. Circumstantial Evidence

Tian-Guey Gan 甘添貴

Lecturer

Lecturer

260. A Study on Farmers' Association in Taiwan
Shaw-Jen Hsiung 熊紹任 Lecturer

261. A Study of the Integration of the Standard Cost Accounting into a "Pert" System

Chang-Yun Yang 楊長雲

262. A Case Study of the Operation and Management of Changhua and Touliu Farm Irrigation Associations

Yuan-Jine Yang 楊垣進 Lecturer

263. Miscellanies on the Spring and Autumn Tso-Chuan Ting-Hsien Chu 朱廷獻 Lecturer

264. The Disputation between Conservationist and Reformer during the Tung-Kuang Period, 1864-94

Hsiang-Tuo Tseng 曾祥鐸 Lecturer

265. A Study on the System of Control during the T'ang Dynasty Yuh-tsai Jen 任育才 Lecturer

7. Taiwan Provincial College of Marine and Oceanic Technology

(1) Class A

266. To Match the Development of Navigation in the Republic of China the Research of Strengthening the Efficiency on Stock Transit and General Shipload in Keelung Port

Cheng-Yee Lee 李政義

Professor

(2) Class D

267. A Study of How to Promote Taiwan Harbour Management
Yeong-jeou Fuh 傅永久 Assistant

8. Chinese Air Force Academy

(1) Class C

268. A Criticism on the Studies and Deeds of Liu Tzing-Hsiu in the Yuan (Mongol) Dynasty

Kuo-Fan Yuan 袁國藩

Instructor

9. Chinese Navy Academy

(1) Class C

269. An Investigation of Guidance Services in Public Junior High School William Kuan-Hong Chen 陳寬宏 Instructor

10. National Defense Medical Center

(1) Class A

270. Social Origins and Role Perception of Nurses

Chung-Yung Chang 張宗尹

Professor

11. Political Warfare College

(1) Class C

271. The Importance of the Theory of Class Struggle in Communist Ideology and Practice

Erh-lin Yang 楊爾琳

Instructor

12. Fujen University

(1) Class C

272. The Effect of the Development of Education toward Economic Growth in Taiwan

Cheh-sheng Kai 蓋浙生

Lecturer

13. Tunghai University

(1) Class A

273. Sino-Vietnamese Relations during the Ch'ing Dynasty, I. (1661-1795) Shih-peng Lu 呂士朋 Professor

274. Leadership Pattern in a Rural Community Ju-Chi Hsi 席汝楫

Professor

275. A Comparative Study of Japan's Trade with the Republic of China, and with Communist China, 1949-1970

I-Kuei Chou 周宜魁

Professor

276. An Assessment on Dr. Hu Shih's Contribution to the Research on Chinese Literature

Cheng-Tsu Yang 楊承祖 Professor

(2) Class C

277. The Intervening Variables in Voting Behavior Sheng-Hsiung Liao 廖勝雄

14. Soochow University

(1) Class B

278. The Psychopolitical Study in Political Science Kuo-chang Wang 王國璋 Associate Professor

279. Economic Significance of Sales Tax Chia-Chu Hou 侯家駒

Associate Professor

(2) Class C

280. The Law of International Carriage by Air Hong-Je Yang 楊鴻基 Lecturer

15. College of Chinese Culture

(1) Class A

281. A Human Ecological Survey of the Taipei City Tsu-yueh Cheng 鄭資約

282. Rhymepolitics of Ancient China Teng-hao Chen 陳民耿

283. Marshall Mission

Jung-chao Kuo 郭榮趙

Professor

(2) Class B

284. The Changes Concerning the Chinese Judicial System: A Study on the Legal History of Modern China

Mao-sung Lin 林茂松

Associate Professor

(3) Class C

285. Modernization in Taiwan, 1874-1894

Cheng-Sheng Hsiao 蕭正勝

Lecturer

16. Central Police College

(1) Class B

286. Plans of Improving the Traffic Safety System in the Republic of China
Wei-Hsin Hsu 徐維新 Associate Professor

17. Taiwan Provincial Pingtung Institute of Agriculture

(1) Class C

287. A Research on Production and Marketing of Honey in Taiwan
Cheng-ya Peng 實正亞 Lecturer

(2) Class D

288. Studies of Liver Functions of Dairy Cattle. II. The Influence of Liver Function on Milk Production and Milk Fat Content

Suen-Chyuan Lin 林孫權

Assistant

18. Taiwan Provincial Hualien Junior College for Teachers

(1) Class C

19. Taiwan Provincial Junior College of Nursing

(1) Class A

290. The Critical Biography of Ts'ao Chih

Wei-Tsung Liu 劉維崇

Professor

20. Taiwan Provincial Pingtung Junior College for Teachers

(1) Class C

291. A Survey of Occupations for Public Middle School Graduates of Pingtung Hsien

I-Hsiung Tsai 萘義雄

Lecturer

21. Taiwan Sugar Experiment Station

(1) Class A

292. A Study on Production Cycles of Piglets and Hogs in Taiwan Ching-tang Wang 王錦堂 Researcher

II. RECIPIENT OF SEMI-ANNUAL RESEARCH GRANTS

半年學術研究補助費

A. NATURAL AND MATHEMATICAL SCIENCES

(1) Special Grants

1. An Investigation into the Foundation of Set Theory (A Proof of the Existence of Suslin Trees)

Shih-Chao Liu 劉世超

Research Fellow (Academia Sinica)

2. Magnitude-frequency Relation of Earthquakes in Taiwan

Ming-Tung Hsu 徐明同

Senior Specialist (Central Weather Bureau)

(2) Class B

3. The Synthesis and Properties of 2H-cyclohepta [b] furan-2-one

Paw-Wang Yang 楊寶旺

Associate Professor (National Taiwan University)

4. Audio-visual Equipment and Architecture Environment

Chin-Shan Weng 翁金山

Associate Professor (National Chengkung University)

5. Elastic Collision: I.

Yeu-Tsang Nee 倪雨蒼

Associate Professor (Tunghai University)

6. Double Compton Scattering with Parallel Outgoing Photons

Pi-Yin Wang 王碧印

Associate Professor (Tamkang College of Arts & Sciences)

7. Charge-transfer Complexes of DDT

Niou-Ching Wu 吳牛清

Associate Professor (Tamkang College of Arts & Sciences)

8. Fluctuations, the Onset of Resistance, among the Metastable States of a Superconducting Sample When T<Tc

Henwell Huei-you Chou 周輝佑

Associate Professor (Tamkang College of Arts & Sciences)

9. Sulfur in Amine Solvents

Nancy Wen-Hwa Ma 馬文華

Associate Professor (Tamkang College of Arts & Sciences)

10. On the Unimodal Density Estimation

Tien-wen Chen 陳天文

Associate Professor (Tamkang College of Arts & Sciences) 11. The Use of Solid Electrolytes in Chemical Cells

Daniel Ta-Nien Yuan 阮大年

Associate Professor (Chung Yuan Christian College of Science and Engineering)

12. The Photoamidation of Phenol

Rita Shao-lin Shon 能小玲

Associate Professor (Chung Yuan Christian College of Science & Engineering)

(3) Class C

13. Analysis of Gantmakher Kaner Oscillation

Jia-Lin Sun 孫家麟

Lecturer (National Chengkung University)

B. BIOLOGICAL, AGRICULTURAL AND MEDICAL SCIENCES

(1) Special Grant

14. Effect of Inter-balance of Zinc, Iron, and Manganese on Sugarcane Growth and Nutrient Uptake

Tzo-chuan Juang 莊作權

Senior Chemist (Taiwan Sugar Expriment Station)

(2) Class A

15. A Study on Response of *Gynura aurantica*, D.C. to Exocostis Virus in Taiwan

Pu Ling 林 樸

Professor (National Taiwan University)

(3) Class B

16. Distribution of *Toxoplasma gondii* in Infected Mice after the Inoculation of Toxoplasma occysts

Tsu-Huei Fuh 傅祖慧

Associate Professor (National Taiwan University)

17. Separation of the Major Pigments of a Yellow-fleshed Watermelon

Wai-Kit Nip 毒威杰

Associate Professor (National Taiwan University)

18. Mechanisms of Sugarcane Resistance to Sugarcane Borers: I. Oviposition and Larval Establishment of Eucosma schistaceana on Sugarcane Varieties

Yung-song Pan 潘榮松

Head of Department (Taiwan Sugar Experiment Station)

19. Effect of Drying on the Availability Index of Soil PK

Char-fen Lin 林家棻

Senior Specialist (Taiwan Sugar Experiment Station)

(3) Class C

20. An Introduction Study of *Pinus contorta*: A Study on Water Absorption and Germination Rate of Seed of *Pinus contorta* from Different Provenance Ching-Fang Shih 施慶芳

Lecturer (National Taiwan University)

21. Phytochemical Studies on Viscum liquidambaricolum Hay.

Chiung-Sheue Chen 陳瓊雪

Lecturer (National Taiwan University)

22. (1) Rice Varietal Improvement—F₈ Selections

(2) Irradiation as an Aid in Banana Variety Improvement

Dein-lin Kao 高典林

Lecturer (National Chunghsing University)

23. Investigation for the Heat Transfer of an Inclined Heat Pipe

Wen-Hsiung Huang 黄文雄

Lecturer (Tatung College of Engineering)

24. Effect of Cultivation Practice on the Mechanical Harvestability of Sugarcane in Taiwan

Fu-Ming Lu 盧福明

Research Agricultural Engineer (Taiwan Sugar Exp. Station)

C. ENGINEERING AND APPLIED SCIENCES

(1) Special Grant

25. Studies on Rainfall Characteristics and Its Density Formula in Taipei Region

Yu-Tien Chang 張玉田

Professor (National Chengkung University)

(2) Class B

26. On Wave Propagation in Reacting Mixture of Two Fluids

Ting-Shu Chen 陳廷書

Associate Professor (Tamkang of Arts & Sciences)

27. Propagation of Cylindrical Magnetic Domains

Yeou-ren Lai 賴友仁

Associate Professor (Tamkang College of Arts & Sciences)

28. Effect of Rotation on the Vibrations of Thin Cylindrical Shells with Clamped Ends

Shih-sen Wang 王石生

Section Chief (Aeronautical Research Laboratory, Aero-Industry Development Center)

(3) Class C

29. Numerical Solutions of a Non-linear Theory of the Jet-flapped Wing

Chieh Wu 吳 劼

Section Chief (Aeronautical Research Laboratory, Aero-Industry Development Center)

30. Prediction of Cleavage Planes in BCC Metals on the Basis of Lowest Plastic Work

Adolph Herng-Der Chiou 邱恒德

Lecturer (Tatung College of Engineering)

31. On the Study of Asynchronous Sequential Machines

Kuo-Shen Wei 魏國深

Lecturer (Tatung Collecge of Engineering)

32. Flood Routing in a Natural Stream

Chun-Tsui Wang 王純粹

Instructor (Chinese Military Academy)

33. The Application of Computerized Learning Machines in Water Treatment

Kang-Sheng Kuo 郭港生 Instructor (Chinese Military
Academy)

34. Nonlinear Systems Analysis with Analytical Methods

Hung Hsiou 蕭 洪

Instructor (Chinese Military Academy)

35. Numerical Solutions of a Non-linear Theory of the Jet-flapped wing

Cheng-Kuang Lin 林正光

Associate Researcher (Aeronautical Research Laboratory, Aero-Industry Development Center)

D. HUMANITIES AND SOCIAL SCIENCES

(1) Class A

36. The Palace of Eternal Youth and King Lear: A Comparative Study

Josephine Huang Hung 黄瓊玖 Professor (National Taiwan University)

37. Diagnostic Studies of Learning Disorders in the Low-achieved Students of Junior High Schools

Wei-Fan Kuo 郭為藩

Professor (National Taiwan Normal University)

38. The Theoretical Analysis of Population Growth in Taiwan

Weilin Wang 王維林

Professor (National Chunghsing University)

(2) Class B

- 39. Ch'iu Chin and the Feminist Movement in Late Ch'ing Dynasty of China Chia-Lin Pao Tao 鮑家麟

 Associate Professor (National Taiwan University)
- 40. A Study on the System of Civil Procedure about Bills of Exchange, Cheques, Promissory Notes in Japanese Law and the Necessity to Institute This System in Chinese Law

Yeong-jia Louch 駱永家

Associate Professor (National Taiwan University)

41. A Study on Children's Discovery of the Conservation of Number, Mass, Weight and Number Volume

Chien-Wen Su 蘇建文

Associate Professor (National Taiwan Normal University)

42. A Constrastive Study of Mandarin Chinese and American English

Shao-ming Tang 唐少銘

Associate Professor (Tamkang
College of Arts & Sciences)

(3) Class C

43. A Study on the Disequilibrium Growth Models

Ta-Ho Lin 林大侯

Lecturer (National Taiwanr University)

44. P'eng Yü-lin and the Sino-French War
Winston Wen-shyan Wang 王文賢 Lecturer (National Taiwan
University)

45. The Application of Direct Costing in Business Administration

Jack Ching-chung Chang 張金仲 Lecturer (National Chengchi University)

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