

AMERICAN  
MEN AND WOMEN  
OF SCIENCE

13TH EDITION

VOLUME 2 D-G

# AMERICAN MEN AND WOMEN OF SCIENCE

13TH EDITION

Edited by the Jaques Cattell Press

Volume 2 D-G

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# Preface

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The observance of an anniversary prompts reflection on the past, and it is natural to note here that the astounding growth in the dimension and stature of this 200 year old American nation has been influenced immeasurably by the achievements of her scientists. 1976 also marks the 70th anniversary of AMERICAN MEN & WOMEN OF SCIENCE as a chronicle of the lives and professional activities of those men and women most instrumental in affecting the shape and quality of science in America. The explosion in scientific activity over the past seven decades is clearly evident when one compares the 1906 edition, a single volume containing 4,000 entries, with the present edition, six volumes profiling nearly 110,000 men and women of importance in their fields.

This edition of AMERICAN MEN & WOMEN OF SCIENCE is a landmark in biographic achievement. The information contained in all seven volumes has been gathered, edited and compiled by the Jaques Cattell Press in the space of ten months. This is a radical, and beneficial, departure from the production of the 12th edition, which took three years to publish in its entirety. The acceleration was made possible by the use of a computerized printing method and more efficient production procedures.

The editors have not sacrificed quality in the interest of speed, however. The criteria were stringently applied in the selection of new entrants, all nominated by former biographees. The criteria follow.

Achievement, by reason of experience and training, of a stature in scientific work equivalent to that associated with the doctoral degree, coupled with presently continued activity in such work;

or

Research activity of high quality in science as evidenced by publication in reputable scientific journals; or, for those whose work cannot be published because of governmental or industrial security, research activity of high quality in science as evidenced by the judgment of the individual's peers;

or

Attainment of a position of substantial responsibility requiring scientific training and experience to the extent described for (1) and (2).

All data forms submitted by biographees were carefully edited and proofread. Those whose information was appearing for the first time received a proof before publication. Information on scientists who did not supply current material is included only if verification of present professional activity was established by our researchers. A former biographee whose current status could not be verified is given a reference to the 12th edition if the probability exists of a continued activity in science. References are also given to scientists who have died since publication of the last edition. Omitted are the names of those previously listed as retired and those who have entered fields or activities not covered by the scope of the directory. More than 20,000 nominations for inclusion were received and over 12,000 of those nominated returned information and were selected for listing. This is a significant increase in both nominations and selections over any previous edition and gives fuller representation to the developing scientist.

Geographic and discipline indexes make up the seventh volume of the set. The discipline index has been rearranged and is organized with major subject headings, providing easier access to this information.

Certain disciplines previously included in the directory are not represented in this edition. Engineering and economics will appear in separate directories with expanded criteria, to enable even broader coverage of these areas. Others, including sociology, psychology and political science were omitted because they are fully covered by membership directories in each field.

Great appreciation is expressed to the AMERICAN MEN & WOMEN OF SCIENCE Advisory Committee for their guidance in the planning of the 13th edition. Their efforts have contributed to an unusually good response to our requests for information and nominations, which has enhanced the value of the publication. Also to be thanked are the many scientific societies that provided membership lists for the use of our researchers or that published announcements in their bulletins and journals.

The staff of the Jaques Cattell Press deserves the highest accolade for their sustained interest, devotion and good will through the many hours of learning and implementing the new procedures necessary to the successful completion of this book. The overwhelming workload was shared by temporary employees who performed with the greatest diligence and responsibility. The job could not have been completed without their fine help. Everyone involved with this project gave outstanding service, but the contributions of Alice Smith, Pauline Stump, Joyce Howell and Ila Martin cannot go without mention. Special acknowledgement is given to Fred Scott, former general manager of the Jaques Cattell Press, who was responsible for initiating the formation of the advisory committee and for overseeing the planning and early stages of work on the 13th edition.

Comments and suggestions are invited and should be addressed to The Editors, American Men & Women of Science, Jaques Cattell Press, P.O. Box 25001, Tempe, Arizona, 85282.

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# Abbreviations

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AAAS—American Association for the Advancement of Science  
abnorm—abnormal  
abstr—abstract(s)  
acad—academic, academy  
acct—account, accountant, accounting  
acoust—acoustic(s), acoustical  
ACTH—adrenocorticotrophic hormone  
actg—acting  
activ—activities, activity  
addn—addition(s), additional  
Add—Address  
adj—adjunct, adjutant  
adjust—adjustment  
Adm—Admiral  
admin—administration, administrative  
adminr—administrator(s)  
admis—admission(s)  
adv—adviser(s), advisory  
advan—advance(d), advancement  
advert—advertisement, advertising  
AEC—Atomic Energy Commission  
aerodyn—aerodynamic(s)  
aeronaut—aeronautic(s), aeronautical  
aerophys—aerophysical, aerophysics  
aesthet—aesthetic(s)  
AFB—Air Force Base  
affil—affiliate(s), affiliation  
agr—agricultural, agriculture  
agron—agronomic, agronomical, agronomy  
agrost—agrostologic, agrostological,  
  agrostology  
agt—agent  
AID—Agency for International Development  
Ala—Alabama  
allergol—allergological, allergology  
alt—alternate  
Alta—Alberta  
Am—America, American  
AMA—American Medical Association  
anal—analysis, analytic, analytical  
analog—analogue  
anat—anatomic, anatomical, anatomy  
anesthesiol—anesthesiology  
angiol—angiology  
Ann—Annal(s)  
ann—annual  
anthrop—anthropological, anthropology  
anthropom—anthropometric, anthropometrical, anthropometry  
antiq—antiquary, antiquities, antiquity  
antiqn—antiquarian

apicult—apicultural, apiculture  
APO—Army Post Office  
app—appoint, appointed  
appl—applied  
appln—application  
approx—approximate(ly)  
Apr—April  
apt—apartment(s)  
aquacult—aquaculture  
arbit—arbitration  
arch—archives  
archeol—archaeological, archaeology  
archit—architectural, architecture  
Arg—Argentina, Argentine  
Ariz—Arizona  
Ark—Arkansas  
artil—artillery  
asn—association  
assoc(s)—associate(s), associated  
asst(s)—assistant(s), assistantship(s)  
Assyriol—Assyriology  
astrodyn—astrodynamics  
astron—astronomical, astronomy  
astronaut—astronautical, astronauts  
astronr—astronomer  
astrophys—astrophysical, astrophysics  
attend—attendant, attending  
atty—attorney  
audiol—audiology  
Aug—August  
auth—author  
AV—audiovisual  
Ave—Avenue  
avicult—avicultural, aviculture

b—born  
bact—bacterial, bacteriologic, bacteriological, bacteriology  
BC—British Columbia  
bd—board  
behav—behavior(al)  
Belg—Belgian, Belgium  
bibl—biblical  
bibliog—bibliographic, bibliographical, bibliography  
bibliogr—bibliographer  
biochem—biochemical, biochemistry  
biog—biographical, biography  
biol—biological, biology  
biomed—biomedical, biomedicine  
biomet—biometric(s), biometrical, biometry  
biophys—biophysical, biophysics

bk(s)—book(s)  
bldg—building  
Blvd—Boulevard  
Bor—Borough  
bot—botanical, botany  
br—branch(es)  
Brig—Brigadier  
Brit—Britain, British  
Bro(s)—Brother(s)  
bryol—bryology  
Bull—Bulletin  
bur—bureau  
bus—business  
BWI—British West Indies

c—children  
Calif—California  
Can—Canada, Canadian  
cand—candidate  
Capt—Captain  
cardiol—cardiology  
cardiovasc—cardiovascular  
cartog—cartographic, cartographical, cartography  
cartogr—cartographer  
Cath—Catholic  
CEngr—Corps of Engineers  
cent—central  
Cent Am—Central America  
cert—certificate(s), certification, certified  
chap—chapter  
chem—chemical(s), chemistry  
chemoter—chemotherapy  
chmn—chairman  
criticult—criticulture  
class—classical  
climat—climatological, climatology  
clin(s)—clinic(s), clinical  
cmndg—commanding  
Co—Companies, Company  
coauth—coauthor  
co-dir—co-director  
co-ed—co-editor  
coeduc—coeducation, coeducational  
col(s)—college(s), collegiate, colonel  
collab—collaboration, collaborative  
collabr—collaborator  
Colo—Colorado  
com—commerce, commercial  
Comdr—Commander  
commun—communicable, communication(s)  
comn(s)—commission(s), commissioned

## ABBREVIATIONS

comnr—commissioner	DNA—deoxyribonucleic acid	fertil—fertility, fertilization
comp—comparative	doc—document(s), documentary, documentation	Fla—Florida
compos—composition	Dom—Dominion	floricult—floricultural, floriculture
comput—computation, computer(s), computing	Dr—Drive	found—foundation
comt(s)—committee(s)	e—east	FPO—Fleet Post Office
conchol—conchology	ecol—ecological, ecology	Fr—French
conf—conference	econ(s)—economic(s), economical, economy	Ft—Fort
cong—congress, congressional	economet—econometric(s)	
Conn—Connecticut	ECT—electroconvulsive or electroshock therapy	
conserv—conservation, conservatory	ed—edition(s), editor(s), editorial	
consol—consolidated, consolidation	ed bd—editorial board	
const—constitution, constitutional	educ—education, educational	
construct—construction, constructive	edcr—educator(s)	
consult(s)—consult, consultant(s), consultant-	EEG—electroencephalogram, electroencephalographic, electroencephalography	
ship(s), consultation, consulting	Egyptol—Egyptology	
contemp—contemporary	EKG—electrocardiogram	
contrib—contribute, contributing, contribu-	elec—electric, electrical, electricity	
tion(s)	electrochem—electrochemical, electrochemistry	
contribr—contributor	electrophys—electrophysical, electrophysics	
conv—convention	elem—elementary	
coop—cooperating, cooperation, cooperative	embryol—embryologic, embryological, embryology	
coord—coordinate(d), coordinating, coordina-	emer—emeriti, emeritus	
tion	employ—employment	
coordr—coordinator	encour—encouragement	
corp—corporate, corporation(s)	encycl—encyclopedia	
corresp—correspondence, correspondent, cor-	endocrinol—endocrinologic, endocrinology	
responding	eng—engineering	
coun—council, counsel, counseling	Eng—England, English	
counr—councilor, counselor	engr(s)—engineer(s)	
criminol—criminological, criminology	enol—enology	
cryog—cryogenic(s)	Ens—Ensign	
crystallog—crystallographic, crystallograph-	entom—entomological, entomology	
ical, crystallography	environ—environment(s), environmental	
crystallogr—crystallographer	enzym—enzymology	
Ct—Court	epidemiol—epidemiologic, epidemiological,	
Ctr—Center	epidemiology	
cult—cultural, culture	equip—equipment	
cur—curator	ESEA—Elementary & Secondary Education	
curric—curriculum	Act	
cybernet—cybernetic(s)	espec—especially	
cytol—cytological, cytology	estab—established, establishment(s)	
CZ—Canal Zone	ethnogr—ethnographic, ethnographical, ethnography	
Czech—Czechoslovakia	ethnogr—ethnographer	
DC—District of Columbia	ethnol—ethnologic, ethnological, ethnology	
Dec—December	Europ—European	
Del—Delaware	eval—evaluation	
deleg—delegate, delegation	evangel—evangelical	
delinq—delinquency, delinquent	eve—evening	
dem—democrat(s), democratic	exam—examination(s), examining	
demog—demographic, demography	examr—examiner	
demogr—demographer	except—exceptional	
demonstr—demonstrator	exec(s)—executive(s)	
dendrol—dendrologic, dendrological, den-	exeg—exegeses, exegesis, exegetic, exegetical	
dendrology	exhib(s)—exhibition(s), exhibit(s)	
dent—dental, dentistry	exp—experiment, experimental	
dep—deputy	exped(s)—expedition(s)	
dept—department(al)	explor—exploration(s), exploratory	
dermat—dermatologic, dermatological, der-	expos—exposition	
matology	exten—extension	
develop—developed, developing, development,		
developmental		
diag—diagnosis, diagnostic	fac—faculty	
dialectol—dialectological, dialectology	facil—facilities, facility	
dict—dictionaries, dictionary	Feb—February	
Dig—Digest	fed—federal	
dipl—diploma, diplomat	fedn—federation	
dir(s)—director(s), directories, directory	fel(s)—fellow(s), fellowship(s)	
dis—disease(s), disorders	fermentol—fermentology	
Diss Abstr—Dissertation Abstracts		
dist—district		
distrib—distributed, distribution, distributive		
distrb—distributor(s)		
div—division, divisional, divorced		

## ABBREVIATIONS

ins—insurance	mfr(s)—manufacture(s), manufacturer(s)	OEEC—Organization for European Economic Cooperation
inst(s)—institute(s), institution(s)	mgr—manager	Cooperation
institl—institutional(ized)	mgt—management	off—office, official
instr(s)—instruct, instruction, instructor(s)	Mich—Michigan	Okla—Oklahoma
instrnl—instructional	microbiol—microbiological, microbiology	olericult—olericulture
int—international	micros—microscopic, microscopical, microscopy	oncol—oncologic, oncology
intel—intelligence	mid—middle	Ont—Ontario
introd—introduction	mil—military	oper(s)—operation(s), operational, operative
invert—invertebrate	mineral—mineralogical, mineralogy	ophthal—ophthalmologic, ophthalmological, ophthalmology
invest(s)—investigation(s)	Minn—Minnesota	optom—optometric, optometrical, optometry
investr—investigator	Miss—Mississippi	ord—ordnance
irrig—irrigation	mkt—market, marketing	Ore—Oregon
Ital—Italian	Mo—Missouri	org—organic
J—Journal	mod—modern	orgn—organization(s), organizational
Jan—January	monogr—monograph	orient—oriental
Jct—Junction	Mont—Montana	ornith—ornithological, ornithology
jour—journal, journalism	morphol—morphological, morphology	orthod—orthodontia, orthodontic(s)
jr—junior	Mt—Mount	orthop—orthopedic(s)
jurisp—jurisprudence	mult—multiple	osteop—osteopathic, osteopathy
juv—juvenile	munic—municipal, municipalities	otol—otological, otology
Kans—Kansas	mus—museum(s)	otolaryngol—otolaryngological, otolaryngology
Ky—Kentucky	musicol—musicological, musicology	otorhinol—otorhinologic, otorhinology
La—Louisiana	mycol—mycologic, mycology	
lab(s)—laboratories, laboratory	n—north	
lang—language(s)	NASA—National Aeronautics & Space Administration	
laryngol—laryngological, laryngology	nat—national, naturalized	
lect—lecture(s)	NATO—North Atlantic Treaty Organization	
lectr—lecturer(s)	navig—navigation(al)	
legis—legislation, legislative, legislature	NB—New Brunswick	
lett—letter(s)	NC—North Carolina	
lib—liberal	NDak—North Dakota	
libr—libraries, library	NDEA—National Defense Education Act	
librn—librarian	Nebr—Nebraska	
lic—license(d)	nematol—nematological, nematology	
limnol—limnological, limnology	nerv—nervous	
ling—linguistic(s), linguistical	Neth—Netherlands	
lit—literary, literature	neurol—neurological, neurology	
lithol—lithologic, lithological, lithology	neuropath—neuropathological, neuropathology	
Lt—Lieutenant	neuropsychiat—neuropsychiatric, neuropsychiatry	
Ltd—Limited	neurosurg—neurosurgical, neurosurgery	
m—married	Nev—Nevada	
mach—machine(s), machinery	New Eng—New England	
mag—magazine(s)	New York—New York City	
maj—major	Nfld—Newfoundland	
malacol—malacology	NH—New Hampshire	
mammal—mammalogy	NIH—National Institutes of Health	
Man—Manitoba	NIMH—National Institute of Mental Health	
Mar—March	NJ—New Jersey	
Mariol—Mariology	NMex—New Mexico	
Mass—Massachusetts	nonres—nonresident	
mat—material(s)	norm—normal	
mat med—materia medica	Norweg—Norwegian	
math—mathematic(s), mathematical	Nov—November	
Md—Maryland	NS—Nova Scotia	
mech—mechanic(s), mechanical	NSF—National Science Foundation	
med—medical, medicinal, medicine	NSW—New South Wales	
Mediter—Mediterranean	numis—numismatic(s)	
Mem—Memorial	nutrit—nutrition, nutritional	
mem—member(s), membership(s)	NY—New York State	
ment—mental(ly)	NZ—New Zealand	
metab—metabolic, metabolism	observ—observatories, observatory	
metall—metallurgic, metallurgical, metallurgy	obstet—obstetric(s), obstetrical	
metallog—metallographic, metalgraphy	occas—occasional(ly)	
metallogr—metallographer	occup—occupation, occupational	
metaphys—metaphysical, metaphysics	oceanog—oceanographic, oceanographical, oceanography	
meteorol—meteorological, meteorology	oceanogr—oceanographer	
metrol—metrological, metrology	Oct—October	
metrop—metropolitan	odontol—odontology	
Mex—Mexican, Mexico		
mfg—manufacturing		

## ABBREVIATIONS

PQ—Province of Quebec	RD—Rural Delivery	sr—senior
PR—Puerto Rico	rec—record(s), recording	St—Saint, Street(s)
pract—practice	redevelop—redevelopment	sta(s)—station(s)
practr—practitioner	ref—reference(s)	stand—standard(s), standardization
prehist—prehistoric, prehistory	refrig—refrigeration	statist—statistical, statistics
prep—preparation, preparative, preparatory	regist—register(ed), registration	Ste—Sainte
pres—president	registr—registrar	steril—sterility
Presby—Presbyterian	regt—regiment(al)	stomatol—stomatology
preserv—preservation	rehab—rehabilitation	stratig—stratigraphic, stratigraphy
prev—prevention, preventive	rel(s)—relation(s), relative	stratigr—stratigrapher
prin—principal	relig—religion, religious	struct—structural, structure(s)
prob(s)—problem(s)	REME—Royal Electrical & Mechanical Engineers	stud—student(ship)
proc—proceedings	rep—represent, representative	subcomt—subcommittee
proctol—proctologic, proctological, proctology	repub—republic	subj—subject
prod—product(s), production, productive	req—requirements	subsidiary
prof—professional, professor, professorial	res—research, reserve	substa—substation
Prof Exp—Professional Experience	rev—review, revised, revision	super—superior
prog(s)—program(s), programmed, programming	RFD—Rural Free Delivery	suppl—supplement(s), supplemental, supplementary
proj—project(s), projection(al), projective	rhet—rhetoric, rhetorical	supt—superintendent
prom—promotion	RI—Rhode Island	supv—supervising, supervision
protozool—protozoology	Rm—Room	supvr—supervisor
prov—province, provincial	RM—Royal Marines	supvry—supervisory
psychiat—psychiatric, psychiatry	RN—Royal Navy	surg—surgery, surgical
psychoanal—psychoanalysis, psychoanalytic, psychoanalytical	RNA—ribonucleic acid	surv—survey, surveying
psychol—psychological, psychology	RNR—Royal Naval Reserve	survr—surveyor
psychomet—psychometric(s)	RNVR—Royal Naval Volunteer Reserve	Swed—Swedish
psychopath—psychopathologic, psychopathology	roentgenol—roentgenologic, roentgenological, roentgenology	Switz—Switzerland
psychophys—psychophysical, psychophysics	RR—Railroad, Rural Route	symp—symposia, symposium(s)
psychophysi—psychophysiological, psychophysiology	rte—route	syphil—syphilology
psychosom—psychosomatic(s)	Russ—Russian	syst(s)—system(s), systematic(s), systematical
psychother—psychotherapeutic(s), psychotherapy	rwy—railway	
Pt—Point	s—south	
pub—public	SAfrica—South Africa	
publ—publication(s), publish(ed), publisher, publishing	SAM—South America, South American	
pvt—private	sanit—sanitary, sanitation	
Qm—Quartermaster	Sask—Saskatchewan	
Qm Gen—Quartermaster General	SC—South Carolina	
qual—qualitative, quality	Scand—Scandinavia(n)	
quant—quantitative	sch(s)—school(s)	
quart—quarterly	scholar—scholarship	
radiol—radiological, radiology	sci—science(s), scientific	
RAF—Royal Air Force	SDak—South Dakota	
RAFVR—Royal Air Force Volunteer Reserve	SEATO—Southeast Asia Treaty Organization	
RAMC—Royal Army Medical Corps	sec—secondary	
RAMCR—Royal Army Medical Corps Reserve	sect—section	
RAOC—Royal Army Ordnance Corps	secy—secretary	
RASC—Royal Army Service Corps	seismog—seismograph, seismographic, seismography	
RASCR—Royal Army Service Corps Reserve	seismogr—seismographer	
RCAF—Royal Canadian Air Force	seismol—seismological, seismology	
RCAFR—Royal Canadian Air Force Reserve	sem—seminar, seminary	
RCAFVR—Royal Canadian Air Force Volunteer Reserve	sen—senator, senatorial	
RCAMC—Royal Canadian Army Medical Corps	Sept—September	
RCAMCR—Royal Canadian Army Medical Corps Reserve	ser—serial, series	
RCASC—Royal Canadian Army Service Corps	serol—serologic, serological, serology	
RCASCR—Royal Canadian Army Service Corps Reserve	serv—service(s), serving	
RCEME—Royal Canadian Electrical & Mechanical Engineers	silvicult—silvicultural, silviculture	
RCN—Royal Canadian Navy	soc(s)—societies, society	
RCNR—Royal Canadian Naval Reserve	soc sci—social science	
RCNVR—Royal Canadian Naval Volunteer Reserve	sociol—sociologic, sociological, sociology	
Rd—Road	Span—Spanish	
	spec—special	
	specif—specification(s)	
	spectrog—spectrograph, spectrographic, spectrography	
	spectrogr—spectrographer	
	spectrophotom—spectrophotometer, spectrophotometric, spectrophotometry	
	spectros—spectroscopic, spectroscopy	
	speleol—speleological, speleology	
	Sq—Square	
	UAR—United Arab Republic	
	UK—United Kingdom	
	UN—United Nations	
	undergrad—undergraduate	
	unemploy—unemployment	
	UNESCO—United Nations Educational Scientific & Cultural Organization	
	UNICEF—United Nations International Childrens Fund	
	univ(s)—universities, university	
	UNRRA—United Nations Relief & Rehabilitation Administration	

## ABBREVIATIONS

UNRWA—United Nations Relief & Works Agency  
urol—urologic, urological, urology  
US—United States  
USA—US Army  
USAAF—US Army Air Force  
USAAFR—US Army Air Force Reserve  
USAF—US Air Force  
USAFR—US Air Force Reserve  
USAR—US Army Reserve  
USCG—US Coast Guard  
USCGR—US Coast Guard Reserve  
USDA—US Department of Agriculture  
USMC—US Marine Corps  
USMCR—US Marine Corps Reserve  
USN—US Navy  
USNAF—US Naval Air Force  
USNAFR—US Naval Air Force Reserve  
USNR—US Naval Reserve  
USPHS—US Public Health Service  
USPHSR—US Public Health Service Reserve  
USSR—Union of Soviet Socialist Republics  
USWMC—US Women's Marine Corps

USWMCR—US Women's Marine Corps Reserve  
  
Va—Virginia  
var—various  
veg—vegetable(s), vegetation  
vent—ventilating, ventilation  
vert—vertebrate  
vet—veteran(s), veterinarian, veterinary  
VI—Virgin Islands  
vinicult—viniculture  
virol—virological, virology  
vis—visiting  
voc—vocational  
vocab—vocabulary  
vol(s)—voluntary, volunteer(s), volume(s)  
vpres—vice president  
vs—versus  
Vt—Vermont  
  
w—west  
WAC—Women's Army Corps

Wash—Washington  
WAVES—Women Accepted for Voluntary Emergency Service  
WHO—World Health Organization  
WI—West Indies  
wid—widow, widowed, widower  
Wis—Wisconsin  
WRCNS—Women's Royal Canadian Naval Service  
WRNS—Women's Royal Naval Service  
WVa—West Virginia  
Wyo—Wyoming  
  
yearbk(s)—yearbook(s)  
YMCA—Young Men's Christian Association  
YMHA—Young Men's Hebrew Association  
yr(s)—year(s)  
YWCA—Young Women's Christian Association  
YWHA—Young Women's Hebrew Association  
  
zool—zoological, zoology

# Contents

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# AMERICAN MEN AND WOMEN OF SCIENCE

## D

**DAAMS, HERMAN**, b Apeldoorn, Netherlands, May 8, 17; Can citizen; m 51; c 1. PHYSICS. Educ: Delft Univ Technol, Engr, 49. Prof Exp: Asst x-ray diffraction, Delft Univ Technol, 49-52; patent exam gen physics. Patent Off, The Hague, Holland, 52-54; sci officer instrumentation, Delft Univ Technol, 54-57; RES OFFICER FREQUENCY STANDARDS, PHYSICS DIV, NAT RES COUN CAN, 57- Mem: Inst Elec & Electronics Engrs; Can Asn Physicists; Netherlands Phys Soc. Res: X-ray diffraction, small angle scattering; instrumentation; atomic frequency standards. Mailing Add: Physics Div Nat Res Coun Ottawa ON Can

**DAANE, ADRIAN HILL**, b Stillwater, Okla, June 19, 19; m 44; c 3. INORGANIC CHEMISTRY. Educ: Univ Fla, BS, 41; Iowa State Col, PhD(chem), 50. Prof Exp: Asst phys chem, Off Sci Res & Develop & Manhattan Proj, Iowa State Col, 42-43; group leader, 43-46, from assoc chemist to sr chemist, AEC, 50-63; from assoc prof to prof chem, Kans State Univ, 50-72, head dept, 63-72; PROF CHEM & DEAN COL ARTS & SCI, UNIV MO-ROLLA, 72- Mem: Am Chem Soc; Am Inst Mining, Metall & Petrol Engrs. Res: High temperature chemistry; chemistry of rare earth metals; vapor pressures of metals; chemical education. Mailing Add: Col of Arts & Sci Univ of Mo Rolla MO 65401

**DAASCH, LESTER WILLIAM**, b Davenport, Iowa, May 17, 19; m 45; c 5. MASS SPECTROMETRY, SPECTROCHEMISTRY. Educ: St Ambrose Col, BS, 41; Iowa State Col, MS, 43. Prof Exp: Asst inorg chem, Iowa State Col, 41-44; asst to lab dir, Naval Ord Lab, 44-45, phys chemist, Naval Res Lab, 45-61, RES CHEMIST, CHEM LABS, EDGEWOOD ARSENAL, 61- Res: Determination of structure of molecules by infrared and mass spectroscopy aided by gas chromatography and nuclear magnetic resonance; spectra in analytical chemistry. Mailing Add: Chem Labs Edgewood Arsenal Aberdeen Proving Ground MD 21010

**DABBAH, ROGER**, b Alexandria, Egypt, Dec 23, 37; US citizen; m 64; c 1. MICROBIOLOGY, BIOCHEMISTRY. Educ: Univ Minn, Minneapolis, BA, 61; Univ Minn, St Paul, MS, 65; Univ Md, College Park, PhD, 70. Prof Exp: Technician, Gen Mills, Inc, 59-61; res assst dairy microbiol, Univ Minn, 61-65; res microbiologist, Agr Res Serv, USDA, 65-71; mgr microbiol, Div Qual Assurance, 71-74; MGR BIOL & INFO SCI, TECH SERV ADMIN, RES & DEVELOP, ROSS LABS-ABBOTT LABS, 74- Mem: Am Dairy Sci Asn; Am Soc Microbiologists; Inst Food Technologists. Res: Bacteriological quality control tests for milk and dairy products; heat resistance, heat injury and recovery of psychrophilic bacteria; inhibition of growth of *Salmonella* by citrus oils; protein from microorganisms; sterilization systems; food processing, liquid and powder. Mailing Add: Ross Labs 625 Cleveland Ave Columbus OH 43216

**DABBERDT, WALTER F**, b New York, NY, Oct 12, 42; m 67; c 2. AIR POLLUTION. Educ: State Univ NY, BS, 64; Univ Wis, MS, 66. PhD(meteorol), 69. Prof Exp: Res asst meteorol, Univ Wis, Madison, 64-69; Nat Acad Sci-Nat Res Coun vis scientist, US Army Natick Labs, 69-70; PROG LEADER ENVIRON METEOROL. ATMOSPHERIC SCI LAB, STANFORD RES INST, 70- Concurrent Pos: Mem comt highways & air qual, Transp Res Bd, Nat Res Coun, 75. Mem: AAAS; Am Meteorol Soc. Res: Momentum and heat transport in the planetary boundary layer; surface heat budget; urban diffusion modeling; optical propagation in the atmosphere. Mailing Add: Atmospheric Sci Lab Stanford Res Inst Menlo Park CA 94025

**DABBS, DONALD HENRY**, b Forestburg, Alta, Sept 12, 21; m 43; c 3. HORTICULTURE. Educ: Univ Alta, BSc, 50, MSc, 52. Prof Exp: Horticulturist. Exp Farm, Can Dept Agr, 52-61; asst prof, 61-70; ASSOC PROF HORT, UNIV SASK, 70- Mem: Potato Assn Am; Am Soc Hort Sci; Can Soc Hort Sci; Int Soc Hort Sci; Agr Inst Can. Res: Vegetable crops, especially nutrition, moisture stress studies; weed control. Mailing Add: Dept of Hort Sci Univ of Sask Saskatoon SK Can

**DABBS, JOHN WILSON THOMAS**, b Nashville, Tenn, Dec 11, 21; m 45; c 3. NUCLEAR PHYSICS, CRYOGENICS. Educ: Univ Tenn, BS, 44, PhD(physics), 55. Prof Exp: Asst physics. Metall Lab, Univ Chicago, 44-45; jr physicist, Appl Physics Lab, Johns Hopkins Univ, 45; PHYSICIST, OAK RIDGE NAT LAB, 46- Mem: Fel Am Phys Soc; Sigma Xi. Res: Nuclear polarization; neutron time-of-flight studies; nuclear fission; elimination of long-lived nuclear wastes. Mailing Add: Oak Ridge Nat Lab Box X Oak Ridge TN 37830

**DABROWIAK, JAMES CHESTER**, b South Bend, Ind, Apr 11, 42; m 66; c 2. CHEMISTRY. Educ: Purdue Univ, BS, 65; Western Mich Univ, Kalamazoo, MS, 67. PhD(chem), 70. Prof Exp: Fel, Ohio State Univ, 70-72; ASST PROF CHEM,

SYRACUSE UNIV, 72- Mem: Am Chem Soc; Chem Soc London. Res: Synthesis and characterization of transition metal macrocyclic complexes. Mailing Add: Dept of Chem Syracuse Univ Syracuse NY 13210

**DACEY, GEORGE CLEMENT**, b Chicago, Ill, Jan 23, 21; m 54; c 3. SOLID STATE PHYSICS, TELECOMMUNICATIONS. Educ: Univ Ill, BS, 42; Calif Inst Technol, PhD(physics), 51. Prof Exp: Res engr, Westinghouse Res Labs, 42-45; mem tech staff & res physicist, Bell Tel Labs, Inc, 51-58, asst dir solid state electronic res, 58-60, dir, 60-61; vpres res, Sandia Corp, 61-63; exec dir tel & power div, 63-68, vpres customer equip develop, 68-70. V PRES TRANSMISSION SYSTS, BELL TEL LABS, INC, 70- Honors & Awards: Elec Eng Asn Distinguished Alumnus Award, Univ Ill, 71. Mem: Nat Acad Eng; fel Am Phys Soc; fel Inst Elec & Electronics Engrs. Res: Semiconductors and transistors; semiconductor devices; microwave electronics. Mailing Add: Bell Tel Labs Inc Holmdel NJ 07733

**DACEY, JOHN ROBERT**, b Manchester, Eng, Apr 28, 14; Can citizen; m 40; c 3. PHYSICAL CHEMISTRY. Educ: Dalhousie Univ, BSc, 36, MSc, 38; McGill Univ, PhD(phys chem), 40. Prof Exp: Res asst, Nat Res Coun Can, 40; supt, Defense Res Chem Labs, 47-49, dean sci, 63-67. PROF CHEM, ROYAL MIL COL, 49-. PRIN, 67- Honors & Awards: Mem: Order Brit Empire. Mem: Am Chem Soc; Chem Inst Can. Res: Chemical warfare, smoke and flame warfare; surface chemistry, adsorption of gases on charcoal; chemical kinetics, photochemistry of fluorine compounds. Mailing Add: Dept of Chem Royal Mil Col Kingston ON Can

**DACEY, MICHAEL FRANCIS**, b Holyoke, Mass, Mar 23, 32; c 1. GEOGRAPHY, STATISTICS. Educ: Univ Kans, BA, 54; Univ Wash, MA, 55. PhD(geog), 60. Prof Exp: Asst prof regional sci, Univ Pa, 60-64; from assoc prof to assoc prof, 64-68. PROF GEOG, NORTHWESTERN UNIV, EVANSTON, 68-. PROF GEOG SCI, 71- Mem: Am Statist Assn; Inst Math Statist; Oper Res Soc Am; Am Am Geogr; Regional Sci Assn. Res: Methods of empirical spatial analysis. Mailing Add: Dept of Geog 401 Univ Hall Northwestern Univ Evanston IL 60201

**DACHILLE, FRANK**, b New York, NY, Sept 15, 17; m 42; c 3. GEOCHEMISTRY. Educ: City Col New York, BCHE, 39; Pa State Univ, PhD(geochem), 59. Prof Exp: Mem staff res & develop resin lab, US Indust Chems, 39-41, plant construct & chem superv, 41-43, asst plant mgr, Pensacola Div, 43-55; asst, 55-59, res assoc geochem, 59-62, from asst prof to assoc prof, 63-75. PROF GEOCHEM, PA STATE UNIV, 75- Concurrent Pos: Consult, Div Undergrad Studies, Pa State Univ, 74- Mem: Am Chem Soc; Geochem Soc; Meteoritic Soc; Am Ceramic Soc; Mineral Soc Am. Res: Application of x-ray methods to study of shock deformation of crystals; parameters and processes in formation of ancient and modern sediments; planetary atmospheres; crystal chemistry at high pressures. Mailing Add: Mineral Sci Bldg Pa State Univ University Park PA 16802

**DACHTLER, SALLY LOUISE**, b Council Bluffs, Iowa, Sept 18, 33. GENETICS. Educ: Ohio Univ, AB, 55; Iowa State Univ, MS, 58. PhD(genetics), 60. Prof Exp: Asst radiation genetics, Iowa State Univ, 55-60; assoc staff scientist psychopharmacol, Jackson Lab, Univ Maine, 60-62; USPHS trainee steroid biochem, Steroid Inst, Univ Utah, 62-63, fel, 63-64; fel biochem, Univ Calif, Davis, 65-68, asst res biochemist, Radiobiol Lab, 68-73; ASSOC PROF BIOL, PA STATE UNIV, 73- Mem: AAAS; Genetics Soc Am; Am Genetic Assn; Am Soc Zoologists; NY Acad Sci. Res: Genetic and hormonal control of enzyme activity during mammalian development. Mailing Add: Dept of Biol 208 Life Sci I Pa State Univ University Park PA 16802

**DACK, SIMON**, b New York, NY, April 19, 08; m 49; c 2. MEDICINE. Educ: City Col New York, BS, 28; NY Med Col, MD, 32. Prof Exp: Asst, Cardiographic Lab, 34-35, sr clin asst, Cardiac Clin, 35-41; adj physician cardiol, 45-58, chief, Cardiac Clin, 49-55, chief, Div Cardiol, 72-74. CHIEF PRENATAL CARDIAC CLIN, MT SINAI HOSP, 53-. CLIN PROF, MT SINAI SCH MED, 70- Concurrent Pos: Res fel, Cardiographic Lab, Mt Sinai Hosp, 34-35; lectr, Columbia Univ, 35- mem, Congenital Cardiac Group, Mt Sinai Hosp, 45-. assoc physician, 58-70, attend physician, 70- from asst attend physician to assoc attend physician, Flower Fifth Ave Hosp, 55-66, attend physician, 66- assoc vis physician, Metrop Hosp, 55-61, vis physician, 61- assoc attend physician, Bird S Coler Mem Hosp, 55- asst clin prof, NY Med Col, 55-59, assoc clin prof, 59- ed in chief, Am J Cardiol, 58- assoc clin prof, Mt Sinai Sch Med, 66-67, assoc prof, 67-70, chief cardiol, Hosp, 72-74. Mem: Am Heart Assn; Am Fedn Clin Res; fel Am Col Physicians; fel Am Col Chest Physicians; Am Col Cardiol (pres, 56-57). Mailing Add: 1111 Park Ave New York NY 10028

**DACONS, JOSEPH CARL**, b Wilkesboro, NC, May 22, 12; m 43; c 1. ORGANIC CHEMISTRY. Educ: Ohio State Univ, BS, 36, MS, 48. PhD(chem), 51. Prof Exp: Assoc prof chem, Fisk Univ, 50-53, actg chmn dept, 51-53; prof & chmn dept, Agr & Tech Col NC, 53-55; RES CHEMIST, US NAVAL ORD LAB, 56- Mem: Am Chem Soc; Nat Inst Sci; Am Inst Chemists. Res: Isolation and study of degradation products of cellulose; chromatographic resolution of complex mixtures of organic

## DACONS

compounds; chemistry of high energy organic compounds; electronic spectra. Mailing Add: US Naval Ord Lab White Oak Silver Spring MD 20910

**DA COSTA, WILLIAM A.**, b Hamilton, Bermuda, June 21, 19; US citizen; m 52. BIOCHEMISTRY, ORGANIC CHEMISTRY. Educ: Wilberforce Univ. BS, 42; Howard Univ. MS, 47; Georgetown Univ. PhD(biochem), 65. Prof Exp: Instr chem, 47-49; teaching asst biochem, 49-54; from instr to assst prof, 55-70; ASSOC PROF BIOCHEM. COL MED. HOWARD UNIV. 70- Mem: AAAS; Am Chem Soc. Res: Drug kinetics and metabolism: physicochemical properties of proteins. Mailing Add: Dept of Biochem Howard Univ Col of Med Washington DC 20001

**DACRE, JACK CRAVEN**, b Auckland, NZ; m 50; c 3. TOXICOLOGY, BIOCHEMISTRY. Educ: Univ NZ. BSc, 43; MSc, 46; Univ London. PhD(biochem), 50. Prof Exp: Biochemist microbiol. Dairy Res Inst. NZ, 51-54; sr biochemist, Toxicol Res Unit, NZ Med Res Coun, Univ Otago Med Sch, 54-61; toxicologist, Path Res Unit, 61-67; head toxicol, Toxicol Res Unit, 68-70; assoc prof environ med, Sch Med, Tulane Univ., 70-74; RES TOXICOLOGIST ENVIRON TOXICOL. US ARMY MED BIOENG RES & DEVELOP LAB, FT DETRICK, MD, 74- Concurrent Pos: NZ Med Res Coun proj grant, Med Sch, Univ Otago, NZ, 61-67; vis res biochemist, St Mary's Hosp Med Sch, London, 61-62; vis prof, San Francisco Med Ctr & Sch Pub Health, Univ Calif, Berkeley, 67-68; vis toxicologist, Nat Commun Dis Ctr, Atlanta, 68; mem, Expert Comt & consult, Expert Adv Panel Food Additives & Pesticide Residues, WHO, Geneva, 67-78; mem, Task Force & consult, US Army Med Res & Develop Command, 73. Honors & Awards: I C 1 Medal & Prize, NZ Inst Chem for Imp Chem Indust, 73. Mem: Fel NZ Chem Soc; The Chem Soc; Brit Biochem Soc; Soc Toxicol. Res: Toxicological, biochemical and metabolic fate studies of food additives, food colors, pesticides and environmental chemicals especially munitions products, fungal metabolites and trace metals. Mailing Add: US Army Med Bioeng Res & Dev Lab Environ Protection Res Div Ft Detrick MD 21701

**DACSO, MICHAEL MIHALY**, medicine, deceased

**DA CUNHA, ANTONIO BRITO**, b Sao Paulo, Brazil, June 17, 25; m 49; c 2. POPULATION GENETICS, CYTOGENETICS. Educ: Univ Sao Paulo, PhD, 48. Prof Exp: Asst, 45-48; privat docent, 48-55, from asst prof to assoc prof, 55-73, actg head dept, 64-66 & 68-70; head dept, 70-73; PROF BIOL, UNIV SAO PAULO, 73-. DIR INST BIOL SCI, 73- Concurrent Pos: Rockefeller Found fels, 49 & 61; vis prof, Univ Tex, Austin, 71. Mem: Soc Study Evolution (vpres, 62 & 71); Am Soc Naturalists; Genetics Soc Am; Brazilian Soc Genetics; Brazilian Acad Sci. Res: Evolutionary processes; differentiation; chromosomal effects of pathogenic agents; symbiosis. Mailing Add: Dept of Biol Inst Biol Sci Univ of Sao Paulo Sao Paulo Brazil

**D'ADAMO, AMEDEO FILIBERTO, JR.**, b Brooklyn, NY, Apr 15, 29; m 62; c 4. MOLECULAR BIOLOGY, NEUROBIOLOGY. Educ: Rutgers Univ, BSc, 50. PhD(chem), 55. Prof Exp: Res assoc, Am Cyanamid Co, 53-55; Columbia Univ, 55-56 & Ortho Res Found, 56-58; asst prof biochem, Albert Einstein Col Med, 58-61; asst prof, NJ Col Med, 61-63; assoc prof, Albert Einstein Col Med, 63-68; PROF BIOL, YORK COL. CITY UNIV NEW YORK, 68- Concurrent Pos: Adj prof chem, Manhattanville Col, 75. Mem: Am Inst Chem; Am Soc Neurochem; AAAS; Am Chem Soc; Sigma Xi. Res: Metabolic pathways; control of metabolism; lipogenesis and myelia synthesis; synaptosomal metabolism; effects of hormones on metabolism of the central nervous system. Mailing Add: Dept of Biol York Col City Univ of New York Jamaica NY 11451

**D'ADAMO, ANTHONY**, b Newark, NJ, Apr 22, 19; m 48; c 3. PHARMACEUTICAL CHEMISTRY. Educ: Rutgers Univ, BA, 48; Columbia Univ, MA, 50. Prof Exp: Chemist, Montröe Chem Co, 50-51; res chemist, White Labs, 51-53; res chemist, 53-60, chief res chemist, 60-68; dir, Anal Res Dept, 68-73, liaison officer new prod, 70-72, tech mgr, 72-73, DIR, ANAL RES & CHEM PROD DEPTS, KNOLL PHARMACEUT CO, 73- Mem: Acad Pharmaceut Sci; fel Am Inst Chemists; Am Pharmaceut Asn. Res: Pharmaceutical liquid, parenteral and tablet dosage forms; product development in industrial pharmacy. Mailing Add: Knoll Pharmaceut Co 30 N Jefferson Rd Whippany NJ 07981

**D'ADDIECO, ALFRED ANTHONY**, organic chemistry, see 12th edition

**DADE, PHILIP EUGENE**, b Hutchinson, Kans, Feb 2, 29; m 56; c 3. AGRONOMY. Educ: Kans State Col, BS, 51, MS, 52; State Col Wash, PhD(forage crop prod), 59. Prof Exp: Res agronomist, Agr Res Serv, USDA, 57-67; RES AGRONOMIST, O M SCOTT & SONS, 67- Mem: Am Soc Agron; Crop Sci Soc Am. Res: Pasture and forage crop management; forage and turf grass seed production. Mailing Add: 3505 Begonia Dr Salem OR 97304

**DADURA, JAMES GERALD**, organic chemistry, see 12th edition

**DAEHLER, MARK**, b Cedar Rapids, Iowa, Mar 21, 34. PHYSICS. Educ: Coe Col, BA, 55; Univ Wis, MA, 57. PhD(physics), 66. Prof Exp: Fel, Los Alamos Sci Lab, Univ Calif, 66-68; staff physicist, Inst Plasmaphysics, Munich, Ger, 68-71; RES PHYSICIST, US NAVAL RES LAB, 71- Mem: Optical Soc Am; Am Phys Soc. Res: High resolution interferometric optical spectroscopy; solar and plasma spectroscopy; zodiacal light spectroscopy; infrared rocket astronomy. Mailing Add: US Naval Res Lab Washington DC 20390

**DAEHLER, MAX, JR.**, b Cedar Rapids, Iowa, Mar 21, 34. PHYSICS. Educ: Coe Col, BA, 55; Univ Wis, MA, 57. PhD, 62. Prof Exp: Sr engr res, Autonetics Div, NAm Aviation, Inc, 62-68; sr scientist, Exsar Corp, 68-71; SR, RES ENGR, QUANTIC INDUSTS, 71- Res: Electron spin resonance; star-tracking devices; electro-optical sensors. Mailing Add: 2309 Monserat Ave Belmont CA 94002

**DAEHNICK, WILFRIED A W**, b Berlin, Ger, Dec 30, 28; US citizen; m 60; c 3. EXPERIMENTAL NUCLEAR PHYSICS. Educ: Munich Tech Univ, BS, 51; Univ Hamburg, MA, 55. Wash Univ, PhD(physics), 58. Prof Exp: Res assoc nuclear physics, Wash Univ, 58-59; res assoc, Princeton Univ, 59-60, instr, 60-62; from asst prof to assoc prof, 62-69; PROF NUCLEAR PHYSICS, UNIV PITTSBURGH, 69- Concurrent Pos: Vis prof, Max Planck Inst, Heidelberg, 73-74. Mem: Fel Am Phys Soc. Res: Experimental and theoretical studies of nuclear structure and nuclear reactions induced by light and heavy ions; nuclear instrumentation; consulting. Mailing Add: Dept of Physics Univ of Pittsburgh Pittsburgh PA 15260

**DAENIKER, HANS ULRICH**, b Zurich, Switz, Dec 19, 24; m 59; c 3. ORGANIC CHEMISTRY. Educ: Swiss Fed Inst Technol, BS, 49, PhD(org chem), 52. Prof Exp: Fel, Univ Calif, Los Angeles, 52-53 & Harvard Univ, 53-54; group leader pharmaceut res, Ciba Ag, Switz, 55-65; res assoc, Givaudan SA, Switz, 65, vpres res, Givaudan Corp, NJ, 66-71. MANAGING DIR, GIVAUDAN AG, SWITZ, 71- Mem: Am Chem Soc; fel Am Inst Chemists; Swiss Chem Soc; The Chem Soc. Res: Pharmaceuticals; perfume and flavor chemistry. Mailing Add: Givaudan AG 8600 Dubendorf Switzerland

**DAESCHNER, CHARLES WILLIAM, JR.**, b Houston, Tex, Dec 24, 20; m 48; c 3. PEDIATRICS. Educ: Rice Inst, BA, 42; Univ Tex, MD, 45. Prof Exp: Intern, Hermann Hosp, Houston, Tex, 45-46; jr resident, St Louis Children's Hosp, 48-49; asst resident, 49-50; sr resident, Boston Children's Hosp, 50-51; assoc prof pediatric, Med Col, Baylor Univ, 51-60; PROF PEDIAT & CHMN DEPT, UNIV TEX MED BR, 60- Mem: Acad Pediat; Soc Pediat Res. Res: Metabolic and renal diseases in children. Mailing Add: Dept of Pediat Univ of Tex Med Br Galveston TX 77551

**DAESELLE, CLAUDE**, b France, Mar 29, 29; Can citizen; m 64; c 1. ORGANIC CHEMISTRY. Educ: Swiss Fed Inst Technol, ChE, 54. DrScPhys, 57. Prof Exp: Res chemist, Monsanto Can Ltd, 57-60; OWNER, ORG MICROANAL, 60- Res: General organic synthesis, especially natural products. Mailing Add: 5757 Decelles Ave Montreal PQ Can

**DAFERMOS, CONSTANTINE M.**, b Athens, Greece, May 26, 41; m 64. APPLIED MATHEMATICS. Educ: Athens Tech Univ, dipl civil eng, 64; Johns Hopkins Univ, PhD(mech), 67. Prof Exp: Fel theorist mech, Johns Hopkins Univ, 67-68; asst prof, Cornell Univ, 68-71; ASSOC PROF THEORET MECH, BROWN UNIV, 71- Mem: Soc Natural Philos (pres, 75-); Am Math Soc. Res: Stability theory in continuum mechanics; partial differential equations; dynamical systems. Mailing Add: Div of Appl Math Brown Univ Providence RI 02912

**DAFFORN, GEOFFREY ALAN**, b Kingman, Kans, Feb 4, 44; m 73. BIO-ORGANIC CHEMISTRY. Educ: Harvard Univ, BA, 66; Univ Calif, Berkeley, PhD(chem), 70. Prof Exp: Fel biochem, Univ Calif, Berkeley, 70-73; asst prof, Univ Tex, Austin, 73-74; ASST PROF CHEM, BOWLING GREEN STATE UNIV, 74- Concurrent Pos: NIH fel, 70-72. Mem: Am Chem Soc. Res: Transition state analogs and the mechanism of acetylcholinesterase action; synthetic catalysts with enzyme-like properties. Mailing Add: Dept of Chem Bowling Green Univ Bowling Green OH 43403

**DAFNY, NACHUM**, b Tel-Aviv, Israel, Mar 5, 34; m 69; c 2. NEUROPHYSIOLOGY, NEUROENDOCRINOLOGY. Educ: Hebrew Univ, BSc, 62, MSc, 65. PhD(neurophysiol), 68. Prof Exp: Lectr neurosci, Hadassah Med Sch, Hebrew Univ, Israel, 68-69; fel, Univ Calif, Los Angeles, 69-70 & Col Physicians & Surgeons, Columbia Univ, 70-72; asst prof neurosci, 72-74, ASSOC PROF NEUROBIOLOG & ANAT, UNIV TEX MED SCH, HOUSTON & GRAD SCH BIOMED SCI, UNIV HOUSTON, 74- Concurrent Pos: NSF fel, Calif Inst Technol, 69-70; Ford Found fel Brain Res & Anat, Univ Calif, Los Angeles, 70; NIH spcl fel neurol, Col Physicians & Surgeons, Columbia Univ, 71-72. Mem: Israeli EEG & Clin Neurophysiol Soc; Israeli Pharmacol & Physiol Soc; Soc Neurosci; Soc Exp Biol & Med; Am Physiol Soc. Res: Neuroendocrinology; neurobiology. Mailing Add: 6118 Yarwell Houston TX 77035

**DAGANI, MICHAEL JOHN**, organic chemistry, see 12th edition

**DAGE, RICHARD CYRUS**, b Kalamazoo, Mich, PHARMACOLOGY. Educ: Ferris State Col, BS, 60; Marquette Univ, PhD(pharmacol), 67. Prof Exp: Pharmacologist cardiovasc pharmacol, Lakeside Labs, Div Colgate Palmolive Co, 67-75; SR RES PHARMACOLOGIST CARDIOVASC PHARMACOL, MERRELL NAT LABS DIV RICHARDSON-MERRELL INC, 75- Concurrent Pos: From clin res to clin asst prof pharmacol, Med Col Wis, 67-75. Mem: AAAS. Res: Cardiovascular pharmacology; mechanism of hypertension; central nervous system control of the cardiovascular system; centrally active antihypertensive drugs; cardiotonic drugs; mechanism of action of cardiotonic drugs; autonomic pharmacology. Mailing Add: Merrell Nat Labs 110 Amity Rd Cincinnati OH 45215

**DAGENAIS, PIERRE**, geography, see 12th edition

**DAGG, ANNE INNIS**, b Toronto, Ont, Jan 25, 33; m 57; c 3. MAMMALOGY. Educ: Univ Toronto, BA, 55, MA, 56; Univ Waterloo, PhD(mammal), 67. Prof Exp: Asst prof zool, Univ Guelph, 68-72; RES ASST PROF ZOOL, UNIV WATERLOO, 72- Mem: Am Soc Mammalogists; Can Soc Environ Biologists. Res: Various behavioral and ecological aspects of the giraffe; analysis of movements and gaits of birds and mammals; relationship of wildlife and man in Canada, especially in urban areas. Mailing Add: 81 Albert St Waterloo ON Can

**DAGG, CHARLES PATRICK**, b Nebr, July 21, 23. REPRODUCTIVE BIOLOGY. Educ: George Washington Univ, BS, 48; Univ Calif, Los Angeles, PhD(zool), 53. Prof Exp: Asst cancer, Univ Calif, Los Angeles, 52-53; USPHS res fel embryo & cancer, Sloan-Kettering Inst, 54-55, asst, 55-56; vis asst prof biol, Brown Univ, 56-58; from assoc staff scientist to staff scientist, Jackson Lab, 58-67; chmn dept biol, Univ Ala, Birmingham, 67-74; PROF DENT & PROF BIOL, UNIV ALA, BIRMINGHAM & PROF BIOL, TUSCALOOSA, 67- Mem: Am Soc Zoologists; Am Asn Anatomists; Genetics Soc Am; Soc Develop Biol; Teratology Soc (secy-treas, 62-66). Res: Embryology; reproductive physiology. Mailing Add: Dept of Biol Univ of Ala Birmingham 35294

**DAGG, IAN RALPH**, b Winnipeg, Man, Mar 20, 28; m 57; c 2. MICROWAVE PHYSICS. Educ: Univ Man, BSc, 49; Pa State Col, MS, 50; Univ Toronto, PhD(physics), 53. Prof Exp: Lectr physics, Univ Toronto, 53-54; Nat Res Coun Can fel, Oxford Univ, 54-55; asst res officer appl physics, nat Res Coun Can, 55-59; assoc prof, 59-69, PROF PHYSICS, UNIV WATERLOO, 69- Concurrent Pos: Nat Res Coun Can res grants, 60-65. Res: Infrared and Raman spectroscopy; electric field induced and pressure induced absorption in infrared and microwave regions; acoustics, microphone standards and noise control. Mailing Add: Dept of Physics Univ of Waterloo Waterloo ON Can

**DAGGETT, ALBERT FREDERICK**, b Concord, NH, Oct 23, 06; m 31; c 2. CHEMISTRY. Educ: Univ NH, BS, 28, MS, 30, Columbia Univ, PhD, 34. Prof Exp: Instr chem, Univ NH, 28-31; asst instr, Columbia Univ, 31-33, res assoc, 34; instr, Hunter Col, 35; from instr to assoc prof, 35-46; dean grad sch & coordr res, 49-52. PROF CHEM, UNIV NH, 46- Concurrent Pos: Coordin, Int Coop Admin-Univ NH tech aid prog, Lima, 56-60; hon prof, 58, vis lectr, 64; consult, Agency Int Develop to Peru, 62. Mem: Am Chem Soc. Res: Analytical chemistry; rare earths; photochemistry. Mailing Add: Dept of Chem Univ of NH Durham NH 03824

**DAGGS, RAY GILBERT**, physiology, see 12th edition

**DAGGY, RICHARD HENRY**, b St Paul, Minn, Aug 23, 14. ENTOMOLOGY, PUBLIC HEALTH. Educ: Univ Minn, BS, 34, MS, 38, PhD(entom), 41; Harvard Univ, MPH, 52, DrPH(trop pub health), 58. Prof Exp: Instr high sch, Minn, 34; asst, Univ Minn, 35-39; instr biol, Bemidji State Col, 39-41; asst entomologist, Bur Entom & Plant Quarantine, USDA, Fla, 42; assoc entomologist, Commun Dis Ctr, USPHS, 45; asst prof entom, Univ Minn, 45-47; from med entomologist to med dir, Arabian Am Oil Co, Saudi Arabia, 47-64; assoc dean int prog, 64-73, actg dean sch pub health, 71-72; LECTR TROP PUB HEALTH, SCH PUB HEALTH, HARVARD UNIV, 64- Concurrent Pos: Vis lectr, Sch Pub Health, Harvard Univ, 54-64; hon

consult, US Air Force, Europe, 57. Mem: AAAS; Am Entom Soc; Am Soc Trop Med & Hyg; fel Am Pub Health Asn; Royal Soc Trop Med & Hyg. Res: Biology and ecology of anophelines; malaria control; tropical public health. Mailing Add: Sch of Pub Health Harvard Univ Boston MA 02115

**DAGGY, TOM**, b Mooresville, Ind, July 16, 15; m 39; c 2. BIOLOGY. Educ: Earlham Col, BA, 37; Northwestern Univ, MS, 39, PhD(zool), 46. Prof Exp: Asst zool, Northwestern Univ, 37-42; instr biol, Maine Twp Jr Col, Ill, 39-42 & Univ Toledo, 42-43; tutor, Olivet Col, 43-47; assoc prof, 47-55. PROF BIOL DAVIDSON COL, 55. Concurrent Pos: Biol illusr, 38-43. Mem: AAAS; Ecol Soc Am; Am Soc Study Evolution; Soc Syst Zool. Res: Ecology and taxonomy of insects; immature stages of Coleoptera. Mailing Add: Dept of Biol Davidson Col Davidson NC 28023

**DAGIRMANJIAN, ROSE**, b Whitinsville, Mass, July 4, 30. PHARMACOLOGY. Educ: Clark Univ, AB, 52; Univ Rochester, MS, 54, PhD(pharmacol), 60. Prof Exp: Res assoc pharmacol, Univ Rochester, 52-60; asst prof pharmacol, Col Med, Ohio State Univ, 63-69; assoc prof, 69-75. PROF PHARMACOL, SCH MED, UNIV LOUISVILLE, 75. Concurrent Pos: Riker Int fel, Eng, 60-62; consult, USPHS & NIH, 72-76 & Food & Drug Admin, 75. Mem: Am Soc Pharmacol & Exp Therapeut; Soc Toxicol; Soc Exp Biol & Med; Soc Neurosci. Res: Pharmacology of tetrahydrcannabinols; effects of drugs and magnesium on the biogenic amines in the central nervous system; neuropharmacology of heavy metals. Mailing Add: Dept of Pharmacol Univ of Louisville Health Sci Ctr Louisville KY 40201

**DAGLEY, STANLEY**, b Burton, UK, Apr 1, 16; m 39; c 4. BIOCHEMISTRY. Educ: Oxford Univ, MA & BSc, 38; Univ London, MSc, 48, DSc(biochem), 55. Prof Exp: Lectr biochem, Univ Leeds, 47-52; reader, 52-62; prof, 62-66. PROF BIOCHEM, UNIV MINN, 66. Concurrent Pos: Vis prof biochem, Univ Ill, Urbana, 63-64; mem, Comt Agr & Environ, Nat Res Coun, 71-74 & Comt Educ Affairs, Soc Biol Chemists, 74-76; co-ed, Biochem Educ, 74. Mem: Am Soc Biol Chemists; Am Soc Microbiol; Biochem Soc; Soc Gen Microbiol; fel The Chem Soc. Res: Enzymatic reactions used by micro-organisms to degrade natural products and man-made compounds, especially those containing the benzene nucleus. Mailing Add: Dept of Biochem Col of Biol Sci Univ of Minn St Paul MN 55108

**D'AGOSTINO, ANTHONY N**, b North Tonawanda, NY, Apr 18, 32; m 58; c 4. PATHOLOGY, NEUROPATHOLOGY. Educ: Cornell Univ, BA, 54; State Univ NY Buffalo, MD, 58. Prof Exp: Asst prof path, Col Med, Univ Utah, 63-67; assoc prof, Univ Tex Southwestern Med Sch, Dallas, 67-75; MEM STAFF, DEPT PATH, GOOD SAMARITAN HOSP, PORTLAND, ORE, 75. Mem: Int Acad Path; Am Asn Neuropath; Am Asn Clin Pathologists; Res: Neuromuscular diseases. Mailing Add: Dept Path Good Samaritan Hosp 1015 NW 22nd Ave Portland OR 97210

**D'AGOSTINO, ANTHONY S**, biology, see 12th edition

**D'AGOSTINO, RALPH B**, b Somerville, Mass, Aug 16, 40; m 65; c 2. MATHEMATICAL STATISTICS, EXPERIMENTAL STATISTICS. Educ: Boston Univ, AB, 62, AM, 64; Harvard Univ, PhD(statist), 68. Prof Exp: Lectr, 64-68, asst prof, 68-71; ASSOC PROF MATH, BOSTON UNIV, 71. Concurrent Pos: Statist consult, Educ Res Corp, 68-, Walden Res Corp, 73-. Lakey Clin Found, 73-, US Food & Drug Admin, 75. United Fruit Co, Mass, & Educ Div, Bolt, Beranek & Newman. Mem: Am Soc Qual Control; Inst Math Statist; Am Statis Asn. Res: Statistics. Mailing Add: Dept of Math Boston Univ Boston MA 02215

**DAGRADI, ANGELO E**, b New York, NY, Feb 23, 17; m 42; c 1. INTERNAL MEDICINE, GASTROENTEROLOGY. Educ: NY Univ, AB, 36; Long Island Col Med, MD, 40. Prof Exp: Asst chief med serv, Vet Admin Hosp, Northport, NY, 48-51; CHIEF GASTROENTEROL. VET ADMIN HOSP, LONG BEACH, CALIF, 51. Concurrent Pos: Adj assoc prof, Sch Med, Univ Calif, Los Angeles, 51-74; adj prof, 74-; asst assoc prof, Univ Calif, Irvine, 68-74; adj prof, 74-; consult, Harbor Gen Hosp, Torrance, 51- & Orange County Hosp, 68- Honors & Awards: First Prize Roerer Award, 69 & 71; Eddy D Palmer Endoscopic Award, 73. Mem: Am Col Physicians; Am Gastroenterol Asn; Am Soc Gastrointestinal Endoscopy (pres); Am Col Gastroenterol (past pres). Res: Diseases of the gastro-intestinal tract especially of the esophagus, stomach and liver. Mailing Add: Vet Admin Hosp 5901 E Seventh St Long Beach CA 90801

**D'AGROSA, LOUIS SALVATORE**, b Brooklyn, NY, Oct 23, 29; m 54; c 5. MEDICAL PHYSIOLOGY. Educ: City Col New York, BS, 52; St Louis Univ, PhD(physiol), 62. Prof Exp: Pharmacol res ass; Nepera Chem Co, 54-56; sect head, Grove Labs, 56-58; from instr to asst prof, 62-71; ASSOC PROF PHYSIOL, ST LOUIS UNIV, 71. Mem: AAAS; Am Physiol Soc; Microcirc Soc; Electron Micros Soc Am; Sigma Xi. Res: Ultrastructure and electrophysiology of the heart. Mailing Add: Dept of Physiol St Louis Univ 1402 S Grand Blvd St Louis MO 63104

**D'AGUANNO, WILLIAM**, b Providence, RI, Dec 29, 23; m 50; c 3. PHYSIOLOGY, PHARMACOLOGY. Educ: Univ RI, BS, 49; Univ Okla, MS, 50; Fla State Univ, PhD(physiol), 55. Prof Exp: Asst, Univ Okla, 50; asst, Fla State Univ, 50-54; pharmacologist, 56-55-60, DEP DIR DIV NEUROPHARMACOL, OFF NEW DRUGS, BUR MED, FOOD & DRUG ADMIN, 70. Mem: AAAS; Soc Toxicol. Res: Pharmacodynamics; effect of drugs on heart; central nervous system; circulation; nerve; nerve muscle in vivo and in vitro; cellular physiology. Mailing Add: Div Neuropharmacol Off New Drugs Bur Med US Food & Drug Admin Washington DC 20204

**DAGUILLARD, FRITZ**, b Cayes, Haiti, June 1, 36; m; c 1. IMMUNOLOGY, MEDICINE. Educ: Univ Haiti, MD, 61; Harvard Univ, MPH, 65; McGill Univ, PhD(immunol), 69. Prof Exp: Resident med, Verettes Hosp, Haiti, 61-63; intern, Med Ctr, Albert Einstein Col Med, 63-64; ASST PROF MED, SCH MED, LAVAL UNIV, 69. Concurrent Pos: Quebec Med Res Coun res grant, 69-71; Med Res Coun Can res grants, 70-. Mem: Can Soc Immunol; Can Soc Clin Invest. Res: Lymphocyte activation; cellular immunology; immune deficiency syndromes. Mailing Add: Dept of Med Laaval Univ Quebec PQ Can

**DAHILL, ROBERT T, JR**, b Perth Amboy, NJ, Jan 15, 37; m 63; c 1. ORGANIC CHEMISTRY. Educ: Tufts Univ, BS, 59; Worcester Polytech Inst, MS, 61; Stevens Inst Technol, PhD(org chem), 64. Prof Exp: Group leader, 64-75, SECT HEAD, GIVAUDAN CORP, CLIFTON, 75. Mem: Am Chem Soc; The Chem Soc; fel Am Inst Chemists. Res: Synthetic organic chemistry, especially compound of interest to flavor and fragrance industry. Mailing Add: 188 William St Perth Amboy NJ 08861

**DAHIYA, RAGHUNATH S**, b Halalpur, Punjab, India, Oct 4, 31; m 55; c 2. FOOD MICROBIOLOGY. Educ: Govt Agr Col, Ludhiana, India, BSc, 51, MSc, 53; NC State Col, PhD(food sci), 62. Prof Exp: Agr inspector, Punjab State Agr Dept, India, 53-56; lectr dairy sci & dairy mgr, Govt Agr Col, Ludhiana, 56-58; res assoc food microbiol, NC State Univ, 62-65; asst prof, 65-71; CHIEF MICROBIOLOGIST, NC DEPT AGR, 71. Mem: Am Soc Microbiol; Inst Food Technologists. Res: Microbiological surveillance of foods, drugs and cosmetics for safety; development of

faster and more accurate methods of identification of food borne pathogens. Mailing Add: Food & Drug Protection Div NC Dept of Agr Raleigh NC 27611

**DAHIYA, RAJBIR SINGH**, b Rattangarh, India, Dec 3, 40; m 66; c 2. MATHEMATICS. Educ: Birla Sci Col, Pilani, India, BSc 60, MSc, 62; Birla Inst CSci & Technol, PhD(math), 67. Prof Exp: From asst lectr to lectr math, Birla Inst Technol & Sci, Pilani, India, 62-68; asst prof, 68-74. ASSOC PROF MATH, IOWA STATE UNIV, 74. Mem: Am Math Soc. Res: Special problems in integral transforms; operational calculus; special functions and use of these various transforms and special function for computation techniques in analysis. Mailing Add: Dept of Math Iowa State Univ Ames IA 50010

**DAHL, ADRIAN HILMAN**, b Mott, NDak, Dec 6, 19; m 42; c 2. BIOPHYSICS. Educ: St Olaf Col, BA, 41; Univ Rochester, PhD(biophys), 53. Prof Exp: Jr res physicist, Eastman Kodak Co, NY, 41-43; Tenn Eastman Corp, 43, sr physicist, 43-46; physicist AEC, 46-47; asst chief radiation, Instrument Br, Wash Div Prod, 47, chief, 47-49; chief instrumentation sect, Atomic Energy Proj, Sch Med, Univ Rochester, 50-59; prin scientist, Oak Ridge Inst Nuclear Studies, 59-61; prof phys & radiation biol & dir radiol health training prof, Colo State Univ, 61-69; chief astrophysics, Space Sci Dept, Martin Marietta Corp, 69-71; CHIEF ENVIRON SCI BR, US ENERGY RES & DEVELOP ADMIN, 71. Concurrent Pos: Consult radiation instrumentation, Armed Forces Spec Weapons Proj, 48-52, Fed Civil Defense, 56; Fulbright lectr health physics, Arg, 59; Int AEC expert radioisotope technol, Indiana, 61; coordr, Nat Environ Res Park, Idaho Nuclear Eng Lab, 75. Mem: Assoc Am Phys Soc; assoc Am Phys Teachers, Inst Elec & Electronics Eng; Health Phys Soc. Res: Nuclear radiation effects on photographic emulsions; industrial radiography; photographic dosimetry; circuit design of radiation detection; instruments and components; space physics; planetary geology and atmospheric science; seismology. Mailing Add: Health Serv Lab USERDA 550 Second St Idaho Falls ID 83401

**DAHL, ALTON**, b Clifton, Tex, Jan 8, 37; m 59. PHYSICAL CHEMISTRY. Educ: Tex Lutheran Col, BA, 59; Univ Mich, MS, 61, PhD(chem), 63. Prof Exp: Instr chem, Univ Mich, 63-64; chemist, 64-68, SR RES CHEMIST, EXP STA, E I DU PONT DE NEMOURS & CO, INC, 68. Mem: Am Chem Soc; Soc Appl Spectros; Sigma Xi. Res: Infrared and Raman spectroscopy; polymerization; polymer development. Mailing Add: 2117 Meadow Lane Wilmington DE 19803

**DAHL, ANTHONY ORVILLE**, b Minneapolis, Minn, Apr 18, 10. BOTANY. Educ: Univ Minn, BS, 32, MS, 33, PhD(bot), 38. Prof Exp: Asst bot, Univ Minn, 32-38; instr biol, Harvard Univ, 38-41; fac instr, 41-44; tutor, 38-44; from assoc prof to prof bot, Univ Minn, 44-67, chmn dept, 47-57; PROF BOT & DIR, MORRIS ARBORETUM, UNIV PA, 67. Concurrent Pos: Res assoc, Karolinska Inst, Sweden, 50-51 & Denmark's Geol Undergelse, 57-58; res invest, Univ Pa, 64-66, NSF award, 57-64; NIH award, 61-62; NASA award, 63. Mem: Int Comt Palynol, 54-56. Mem: AAAS; NY Acad Sci; Am Bot Soc; Am Soc Naturalists; Int Soc Cell Biol. Res: Cytology; pollen morphology; atmospheric pollen; cytotaxonomy; electron microscopy. Mailing Add: Morris Arboretum Univ of Pa 9414 Meadowbrook Ave Chestnut Hill Philadelphia PA 19118

**DAHL, ARTHUR LYON**, b Palo Alto, Calif, Aug 13, 42. MARINE ECOLOGY, PHYCOLOGY. Educ: Stanford Univ, AB, 64; Univ Calif, Santa Barbara, PhD(biol), 69. Prof Exp: Vis res assoc bot, Smithsonian Inst, 69-70; assoc cur algae, 70-74; REGIONAL ECOL ADV, S PAC COMN & RES ASSOC, SMITHSONIAN INST, 74. Mem: Bot Soc Am; Ecol Soc Am; Int Phycol Soc; Marine Biol Asn UK; Phycol Soc Am. Res: Development and experimental ecology of benthic marine algae; tropical reef ecosystems and algal communities of coral reefs; environmental management of tropical island systems. Mailing Add: South Pac Comm BPD-5 Noumea Cedex New Caledonia

**DAHL, ARTHUR RICHARD**, b Des Moines, Iowa, Nov 25, 30; m 52; c 4. GEOLOGY, CIVIL ENGINEERING. Educ: Iowa State Col, BS, 54, MS, 58; Iowa State Univ, PhD(geol), 61. Prof Exp: Assoc civil eng, Iowa State Univ, 57-61; geologist, Humble Oil & Refining Co, 61-64; geol engr, Esso Prod Res Co, 64-66; sr geologist, 66-67, superv geologist, 67-70. DIST GEOLOGIST, HUMBLE OIL & REFINING CO, 70. Concurrent Pos: Off Naval Res grant, 58-60. Mem: Geol Soc Am; Am Asn Petrol Geologists; Am Inst Mining, Metall & Petrol Engrs; Am Geol Inst. Res: Geology and engineering of unconsolidated earth materials; exploration and exploitation of base metals and nuclear fuel. Mailing Add: Humble Oil & Refining Co Minerals Dept PO Box 120 Denver CO 80201

**DAHL, BILLIE EUGENE**, b Cement, Okla, Oct 24, 29; m 53; c 3. RANGE MANAGEMENT, ANIMAL HUSBANDRY. Educ: Okla State Univ, BS, 51; Utah State Univ, MS, 53; Idaho Univ, PhD(range mgt, soils), 66. Prof Exp: Range conservationist, Bur Land Mgt, Wyo, 53, range mgr, 54-56; asst range conservationist, Agr Exp Sta, Colo State Univ, 56-66, assoc range conservationist, Eastern Colo Range Sta, 66-67; assoc prof range econ & eval, 67; assoc prof, 67-73. PROF RANGE MGT, TEX TECH UNIV, 73. Concurrent Pos: Res assoc, Range & Forestry Exp Sta, Univ Idaho, 62-64. Mem: Soc Range Mgt. Res: Grazing management; systems of grazing; legume adaptation studies; range nutrition, improvement, ecology and economics. Mailing Add: Dept of Range & Wildlife Mgt Tex Mgt Tech Univ Lubbock TX 79409

**DAHL, ELMER VERNON**, b Colby, Kans, Apr 17, 21; m 44; c 5. PATHOLOGY, EPIDEMIOLOGY. Educ: Univ Southern Calif, BS, 43, MD, 52; Univ Minn, MS, 58. Prof Exp: Intern, Walter Reed Army Hosp, US Air Force, 52-53; chief path br, US Air Force Sch Aerospace Med, 59-61; comdr epidemiol lab, Lackland AFB, 61-68; comdr epidemiol flight, Manila, Philippines, 68-69; res assoc prof, 69-75. PROF PATH, UNIV TEX MED BR, 69. Concurrent Pos: Fel path, Sch Med, Duke Univ, 53-54. Mayo Found fel, 54-59; consult, US Air Force Sch Aerospace Med, 61-69; surgeon gen, 61-65. Aeromed Res Lab, Holloman AFB, 64-69. Mem: Am Soc Exp Path; fel Am Col Path; Int Acad Path; Soc Trop Med & Hyg; AMA. Res: Infectious diseases; experimental pathology. Mailing Add: 124 Tuna Ave Galveston TX 77550

**DAHL, GERD H**, inorganic chemistry. see 12th edition

**DAHL, HARRY MARTIN**, b Yonkers, NY, June 23, 26; m 54; c 3. PETROLEUM GEOLOGY, EXPLORATION GEOLOGY. Educ: Hunter Col, AB, 50; Columbia Univ, AM, 51, PhD(geol), 54. Prof Exp: Geologist, US AEC, Colo, 54-55, area geologist, 55-56; res geologist, 56-57; res geologist, 57-73, proj leader, 69-72. SR RES GEOLOGIST, RES & TECH DEPT, TEXACO, INC, 73. Concurrent Pos: Chmn, Coord Comt, Am Petrol Inst Res Proj, 55 & 64-66. Mem: Mineral Soc Am; Geol Soc Am; Geochem Soc; Clay Minerals Soc; Am Asn Petrol Geologists. Res: Research and development of exploration and recovery techniques in the field of energy resources. Mailing Add: Res & Tech Dept Texaco Inc PO Box 425 Bellaire TX 77401

**DAHL, HARVEY A**, b Waldheim, Sask, Feb 19, 26; US citizen. PHYSICS. Educ: Stanford Univ, BS, 51, PhD(physics), 63. Prof Exp: From res asst to res assoc, High

## DAHL

Energy Physics Lab, Stanford Univ, 56-64; ASST PROF PHYSICS, NAVAL POSTGRAD SCH, 64- Mem: Am Phys Soc; Am Asn Physics Teachers Res: High energy nuclear physics, especially electromagnetically induced disintegrations of nuclei; electron scattering at high energies. Mailing Add: Dept of Physics Naval Postgrad Sch Monterey CA 93940

**DAHL, LAWRENCE FREDERICK**, b Chicago, Ill, June 2, 29; m 56; c 3. PHYSICAL INORGANIC CHEMISTRY. Educ: Univ Louisville, BS, 51; Iowa State Col, PhD(phys chem), 56. Prof Exp: AEC fel, Ames Lab, Iowa State Col, 57; from instr to assoc prof, 57-64. PROF CHEM, UNIV WIS, MADISON, 64- Concurrent Pos: Alfred P Sloan fel, 63-65; Guggenheim fel, 70-71. Honors & Awards: Award in Inorganic Chem, Am Chem Soc-Tex Instruments, 74. Mem: AAAS; Am Crystallog Asn; Am Chem Soc; Am Phys Soc; The Chem Soc. Res: Synthesis, structure and bonding of inorganic compounds, especially organometallic complexes and metal carbonyls; structural characterization of antibiotics and other biologically important compounds; x-ray crystallography and spectroscopy; molecular structure and valence. Mailing Add: Dept of Chem Univ of Wis Madison WI 53706

**DAHL, LEWIS KITCHENER**, internal medicine, deceased

**DAHL, NANCY ANN**, b Colby, Kans, July 18, 32; m 52; c 2. NEUROBIOLOGY. Educ: Univ Kans, AB, 56. PhD(physiol), 62. Prof Exp: Asst instr physiol, Univ Kans, 62-63; res assoc neuropsychiat unit, Med Res Coun Labs, Carshalton, Eng, 63-64; asst prof human develop, 64-66; asst prof, 66-70. ASSOC PROF PHYSIOL, UNIV KANS, 70- Mem: Am Physiol Soc; Am Soc Cell Biol; Soc Neurosci; Am Soc Neurochem; Brit Biochem Soc. Res: Neurobiology; energy flow in the nervous system; mechanisms of ischemic nerve damage. Mailing Add: Dept of Physiol & Cell Biol Univ of Kans Lawrence KS 66044

**DAHL, ORIN I**, b Chicago, Ill, July 21, 35. EXPERIMENTAL HIGH ENERGY PHYSICS. Educ: Univ Ill, Urbana, BS, 57; Univ Calif, Berkeley, PhD(physics), 62. Prof Exp: PHYSICIST, LAWRENCE BERKELEY LAB, UNIV CALIF, 62- Mem: Am Phys Soc. Res: Study of strong and weak interactions of elementary particles using high speed digital computer techniques. Mailing Add: Lawrence Berkeley Lab Univ of Calif Berkeley CA 94720

**DAHL, PER FRIDTJOF**, b Washington, DC, Aug 1, 32; m 66; c 2. NUCLEAR PHYSICS. Educ: Univ Wis, BS, 56. MS, 57. PhD(nuclear physics), 60. Prof Exp: Res assoc nuclear physics, Univ Wis, 60; Ford Found res grant, Inst Theoret Physics, Univ Copenhagen, 60-62; proj scientist, Air Force Weapons Lab, 62-63; assc physicist, 63-65; assc physicist, 65-71. PHYSICIST, BROOKHAVEN NAT LAB, 71- Mem: AAAS; Am Phys Soc. Res: Applied superconductivity; high energy accelerator design. Mailing Add: Accelerator Dept Brookhaven Nat Lab Upton NY 11973

**DAHLBERG, ALBERT A**, b Chicago, Ill, Nov 20, 08; m 34; c 3. DENTAL ANTHROPOLOGY. Educ: Loyola Univ, Ill, BS & DDS, 32. Prof Exp: Resident & instr dent surg, Univ Chicago, 32-36; attend dent surgeon, Chicago Mem Hosp, 37-53; assoc prof, Dept Anthropol, 49-67, actg dir clin, 67-69, RES ASSOC PHYS ANTHROP, WALTER G ZOLLER MEM DENT CLIN, UNIV CHICAGO, 49-. PROF, DEPT ANTHROP, 67- Concurrent Pos: Res assoc, Chicago Natural Hist Mus. Mem: Fel AAAS; Am Dent Asn; Am Asn Phys Anthropol; Am Anthropol Asn; fel Am Col Dent. Res: Genetics and morphology of the human dentition. Mailing Add: Walter G Zoller Mem Dent Clin Univ of Chicago Chicago IL 60637

**DAHLBERG, ALBERT EDWARD**, b Chicago, Ill, Sept 19, 38; m 63; c 3. BIOCHEMISTRY. Educ: Haverford Col, BS, 60; Univ Chicago, MD, 65. PhD, 68. Prof Exp: Staff assoc biochem, Nat Cancer Inst, 67-70; ASST PROF, DIV BIOL & SCI, BROWN UNIV, 72- Concurrent Pos: Am Cancer Soc fel, Dept Molecular Biol, Aarhus Univ, 70-72. Mem: Am Soc Biol Chemists. Res: Prolyribosomes and RNA metabolism. Mailing Add: Div of Biol & Med Sci Brown Univ Providence RI 02912

**DAHLBERG, DUANE ARLEN**, b Parshall, NDak, July 15, 31; m 57; c 3. PHYSICS, ENVIRONMENTAL SCIENCES. Educ: Mich Technol Univ, BS, 53, MS, 54; Luther Theol Sem, BD, 60; Mont State Univ, Ph(D)phys, 67. Prof Exp: Res asst neutron physics, Argonne Nat Lab, 53-54; instr, 60-64; asst prof, 67-68. ASSOC PROF PHYSICS, CONCORDIA COL, MOORHEAD, MINN, 68- Mem: Am Asn Physics Teachers; Optical Soc Am; Inst Environ Sci. Res: Neutron cross sections; optical excitation cross sections. Mailing Add: Dept of Physics Concordia Col Moorhead MN 56560

**DAHLBERG, FRANCES MURRAY**, b Milwaukee, Wis, July 10, 41. ANTHROPOLOGY. Educ: Radcliffe Col, AB, 63; Cornell Univ, MA, 66. PhD(anthrop), 70. Prof Exp: Asst prof anthrop, Univ Colo, 70-72; ASST PROF ANTHROP, COLO WOMEN'S COL, 72- Mem: Am Sociol Asn; Am Anthrop Asn. Res: Urban anthropology; East Africa; stratification; race relations; Honduras. Mailing Add: Dept of Anthropol Colo Women's Col Denver CO 80220

**DAHLBERG, JAMES ERIC**, b Chicago, Ill, May 30, 40; m 63. BIOCHEMISTRY, MOLECULAR BIOLOGY. Educ: Haverford Col, BA, 62; Univ Chicago, PhD(biochem), 66. Prof Exp: Res assoc, Med Res Coun Lab Molecular Biol, Cambridge, Eng, 66-68; res assoc, Lab Biophys, Univ Geneva, 68-69; from asst prof to assoc prof, 69-74. PROF PHYSIOL CHEM, MED SCH, UNIV WIS-MADISON, 74- Concurrent Pos: US Air Force Ofc Ser Res fel, 66-67; Am Cancer Soc fel, 67-69. Honors & Awards: Eli Lilly Award Biol Chem, Am Chem Soc, 74. Mem: AAAS; Am Micros Soc; Am Soc Biol Chemists. Res: Structure and function of ribosomal and messenger RNA; nucleotide sequence of genetic punctuation; DNA synthesis initiation. Mailing Add: Dept of Physiol Chem Univ of Wis Med Sch Madison WI 53706

**DAHLBERG, MICHAEL D**, b Syracuse, NY, May 11, 40. ZOOLOGY. Educ: Cornell Univ, BS, 62; Tulane Univ, PhD(zool), 66. Prof Exp: Asst prof zool, Univ Ga, 66-74; MDM STAFF, C W RICE DIV, NUS CORP, 74- Mem: Am Soc Ichthyologists & Herpetologists; Am Fisheries Soc. Res: Ichthyology; systematics and ecology of fish. Mailing Add: C W Rice Div NUS Corp Manor Oak II 1910 Cochran Rd Pittsburgh PA 15220

**DAHLBERG, MICHAEL LEE**, b Miami, Fla, Jan 19, 39; m 58; c 2. FISHERIES, BIOMETRICS. Educ: Ore State Univ, BS, 62, MS, 63; Univ Wash, PhD(fisheries), 68. Prof Exp: Res assoc fisheries. Fisheries Res Inst, Univ Wash, 63-68; asst prof, Va Polytech Inst, 68-70; SUPVRY FISHERIES RES BIOLOGIST, NAT MARINE FISHERIES SERV, 70- Concurrent Pos: Consult, US Bur Sport Fisheries & Wildlife, 68-69 & Sport Fishing Inst, Washington, DC, 68-70. Mem: AAAS; Am Inst Fishery Res Biol; Am Fisheries Soc; Am Statist Asn. Res: Population dynamics of freshwater and marine fish, including the application of digital computers to solving fishery research problems through data processing and systems simulation; limnology. Mailing Add: Auke Bay Fisheries Lab Nat Marine Fisheries Serv Auke Bay AK 99821

**DAHLBERG, RICHARD CRAIG**, b Astoria, Ore, July 23, 29; m 56; c 3. PHYSICS.

Educ: Univ Ore, BS, 51; Univ Mich, MS, 54; Rensselaer Polytech Inst, PhD, 64. Prof Exp: Prod superv, Hanford Works, Gen Elec Co, 51-53; mgr reactor physics, Knolls Atomic Power Lab, 54-64; reactor physicist, Gen Atomic Div, Gen Dynamics Co, 64-67; mgr HT&R reactor physics, 67-69; mgr nuclear anal & reactor physics dept, Gulf Gen Atomic Div, Gulf Energy & Environ Sci, Gulf Oil Corp, 62-72. DIR FUEL ENERGY DIV, GEN ATOMIC CO, 72- Mem: Am Nuclear Soc; Sigma Xi. Res: Reactor physics; nuclear engineering; reactor design. Mailing Add: 7733 Esterel Dr La Jolla CA 92037

**DAHLBERG, RICHARD ERNEST**, b Mt Jewett, Pa, Aug 26, 28; m 55; c 4. CARTOGRAPHY. Educ: George Washington Univ, AB, 50; Univ NC, MA, 52; Univ Wis, PhD(geog). 56. Prof Exp: Cartographer, US Govt, 48-49; lectr geog, Southern Ill Univ, Carbondale, 55-56; asst prof, Univ Calif, Los Angeles, 56-62; assoc prof, Syracuse Univ, 62-70; PROF GEOG & CHMN DEPT, NORTHERN ILL UNIV, 70- Concurrent Pos: NSF fel, Syracuse Univ, 67-68; Mem: Am Cong Surv & Mapping (vcmm cartog div, 68-69; chmn, 69-70); Am Geog Soc; Am Soc Photogram. Res: Thematic and atlas cartography; population mapping; history and use of map projections; map design. Mailing Add: Dept of Geog Northern Ill Univ DeKalb IL 60115

**DAHLBERG, SUSAN CLARDY**, b Washington, DC, Dec 8, 47; m 70. SURFACE CHEMISTRY. Educ: Brown Univ, BS, 69; Cornell Univ, MS, 71, PhD(chem), 74. Prof Exp: MEM TECH STAFF, BELL LABS, 74- Mem: Am Vacuum Soc; Am Chem Soc. Res: Surface chemistry and physics of semiconductors, monitored by such techniques as photovoltage spectroscopy. Mailing Add: Rm 1A-334 Bell Labs 600 Mountain Ave Murray Hill NJ 07974

**DAHLE, LELAND KENNETH**, b Marietta, Minn, June 19, 26; m 58; c 2. CEREAL CHEMISTRY. Educ: St Olaf, BA, 50; Purdue Univ, MS, 53; Univ Minn, PhD(physiol chem), 61. Prof Exp: Instr chem, Ausburg Col, 52-56; res cereal chemist, Flour Mills, Peavey Co, 61-69; sr res scientist, 69-72. DIV HEAD CEREAL SCI, CAMPBELL SOUP CO, 72- Mem: Am Chem Soc; Am Asn Cer Chemists; Inst Food Technologists. Res: Lipid oxidation; autoxidation phenomena; thiobarbituric acid reaction assay; oxidative stability of pigments; functional effects of flour protein sulphydryl groups on dough rheology and behavior; functional properties of protein and starch in bread systems; interactions of protein and starch. Mailing Add: Campbell Soup Co Campbell Place Camden NJ 08101

**DAHLEM, DAVID H**, geology, computer science, see 12th edition

**DAHLEN, FRANCIS ANTHONY, JR**, b American Falls, Idaho, Dec 5, 42; m 67. GEOPHYSICS. Educ: Calif Inst Technol, BS, 64; Univ Calif, San Diego, MS, 67. PhD(geophys), 69. Prof Exp: NSF fel geod & geophys, Cambridge Univ, 70-71; Alfred P Sloan Found fel, 71-73; asst prof, 71-75. ASSOC PROF GEOPHYS, PRINCETON UNIV, 75- Mem: Am Geophys Union. Res: Theoretical seismology; free oscillations of the earth; rotation of the earth, earth and ocean tides; seismic source mechanism. Mailing Add: Dept of Geol & Geophys Sci Princeton Univ Princeton NJ 08540

**DAHLEN, ROGER W**, b Iola, Wis, Sept 7, 35; m 62; c 3. MEDICAL PHYSIOLOGY, SCIENCE ADMINISTRATION. Educ: Luther Col, Iowa, BA, 56; Univ Iowa, MS, 58. PhD(physiol), 60. Prof Exp: Instr physiol, Sch Med, Boston Univ, 60-62; asst prof, NJ Col Med & Dent, 62-68; health scientist admn. Training Grants & Awards Br, Nat Heart Inst, 68-71, CHIEF, DIV BIOMED INFO SUPPORT, NAT LIBR MED, NAT INSTS HEALTH, 71- Concurrent Pos: Mem bd trustees, Upsilon Col, 64-68. Mem: NY Acad Sci; Health Sci Commun Asn. Res: Cardiac electrophysiology; effects of hypothermia. Mailing Add: Extramural Progs Nat Libr of Med Nat Insts of Health Bethesda MD 20014

**DAHLER, JOHN S**, b Wichita, Kans, May 7, 30; m 54. PHYSICAL CHEMISTRY. Educ: Univ Wichita, BS, 51, MS, 52; Univ Wis, PhD(theoret chem), 55. Prof Exp: NSF fel, Univ Amsterdam, 55-56; task scientist, Aeronaut Res Lab, Wright Air Develop Ctr, 56-58; from asst prof to assoc prof chem eng, 59-63. PROF CHEM ENG & CHEM, UNIV MINN, MINNEAPOLIS, 63- Concurrent Pos: Sloan fel, 64-; NSF sr fel, 65-66; vis prof, Chem Lab III, H C Ørsted Inst, Univ Copenhagen, 73. Mem: Am Phys Soc; Soc Natural Philos; Am Fedn Scientists. Res: Theoretical physical chemistry; equilibrium statistical mechanics; theory of fluid transport phenomena; electronic and atomic collision processes. Mailing Add: Depts of Chem Eng & Chem Univ of Minn Minneapolis MN 55455

**DAHLGARD, MURIEL GENEVIEVE**, b West Haven, Conn, July 5, 20. ORGANIC CHEMISTRY. Educ: Univ Conn, BS, 46, MS, 49; Univ Kans, PhD(org chem), 56. Prof Exp: Asst Univ Conn, 46-48; asst res chemist, Nopco Chem Co, NJ, 48-53; asst Univ Kans, 53-56; asst res prof cancer res lab, Univ Fla, 56-61; asst prof, 61-64. ASSOC PROF CHEM, RANDOLPH-MACON WOMAN'S COL, 64-. CHMN DEPT, 75- Mem: AAAS; Am Chem Soc. Res: Aliphatic diamines; diaryl ethers; carboxylates; carcinogenic derivatives of fluorene and biphenyl; antimetabolites. Mailing Add: Dept of Chem Randolph-Macon Woman's Col Lynchburg VA 24503

**DAHLGREN, GEORGE**, b Chicago, Ill, Apr 12, 29; m 51; c 3. PHYSICAL CHEMISTRY. Educ: Ill Wesleyan Univ, BS, 51; Univ Wyo, MS, 56, PhD(chem), 58. Prof Exp: Res assoc chem, Cornell Univ, 58-59; from asst prof to assoc prof, Univ Alaska, 59-66; head dept, 64-66; prof, Univ Cincinnati, 66-75, asst head dept, 66-71 & 71-75; DEAN, COL ARTS & SCI & PROF CHEM, UNIV MO-KANSAS CITY, 75- Mem: Am Chem Soc. Res: Kinetics and thermodynamics. Mailing Add: Col of Arts & Sci Univ of Mo Kansas City MO 64110

**DAHLGREN, ROBERT BERNARD**, b Walnut Grove, Minn, Jan 27, 29; m 51; c 6. WILDLIFE RESEARCH. Educ: SDak State Univ, BS, 50, PhD, 72; Utah State Univ, MS, 55. Prof Exp: Small game biologist, SDak Dept of Game, Fish & Parks, 52-61; leader small game & fur bearer res proj, 61-65; asst chief, Game Div, 65-67; asst leader, SDak Coop Wildlife Res Unit, 67-73. LEADER, IOWA COOP WILDLIFE RES UNIT, FISH & WILDLIFE SERV, US DEPT INTERIOR, 73- Mem: Wildlife Soc. Res: Population ecology and dynamics of wildlife populations; pesticide effects on game birds. Mailing Add: Iowa Coop Wildlife Res Unit Iowa State Univ Ames IA 50011

**DAHLGREN, ROBERT R**, b Lincoln, Nebr, May 17, 35; m 57; c 2. VETERINARY PATHOLOGY. Educ: Okla State Univ, DVM, 63, MS, 66. Prof Exp: Instr path, Okla State Univ, 63-66; pathologist, Ralston Purina Co, 66-68; assoc prof path, Univ Nebr, 68-69; PATHOLOGIST, RALSTON PURINA CO, 69- Concurrent Pos: Consult comp path, Sch Med, Washington Univ, 67- Mem: NY Acad Sci; Am Vet Med Asn. Res: Comparative neuropathology and immunology. Mailing Add: Ralston Purina Co Checkerboard Square St Louis MO 63199

**DAHLIN, DAVID CARL**, b Beresford, SDak, Sept 3, 17; m 41; c 3. PATHOLOGY. Educ: Univ SDak, BS, 38; Univ Chicago, MD, 40; Univ Minn, MS, 48. Prof Exp: Intern & resident path, Ancker Hosp, St Paul, 41 & 42; asst prof, 53-61. PROF PATH, MAYO MED SCH, UNIV MINN, 61-. CHMN DEPT SURG PATH, 70-

**CONSULT SURG PATH, MAYO CLIN.** 48- Mem: Am Soc Clin Path; Am Asn Pathologists & Bacteriologists; AMA: Am Cancer Soc. Res: Bone tumors. Mailing Add: Dept of Path Mayo Med Sch Univ of Minn Rochester MN 55902

**DAHLMAN, DOUGLAS LEE,** b Bertha, Minn, Sept 29, 40; m 60; c 3. INSECT PHYSIOLOGY. Educ: St Cloud State Col, BS, 61; Iowa State Univ, MS, 63, PhD(entom), 65. Prof Exp: Res assoc entom, Iowa State Univ, 65; asst prof, 65-71; ASSOC PROF ENTOM, UNIV KY, 71- Mem: AAAS; Entom Soc Am. Res: Insect parasite-host interactions; physiological and biochemical interactions between insects and naturally occurring substances; insect growth, development and aging. Mailing Add: Dept of Entom Univ of Ky Lexington KY 40506

**DAHLQUIST, FREDERICK WILLIS,** b Chicago, Ill, June 15, 43; m 63; c 2. BIOPHYSICAL CHEMISTRY. Educ: Wabash Col, BA, 64; Calif Inst Technol, PhD(chem), 69. Prof Exp: Miller fel biochem, Univ Calif, Berkeley, 69-71; ASST PROF CHEM, UNIV ORE, 71- Concurrent Pos: Alfred P Sloan Found fel, 75-77. Res: Nuclear magnetic resonance studies of biological systems; enzyme mechanisms; mechanism of chemotaxis in bacteria. Mailing Add: Dept of Chem Univ of Ore Eugene OR 97403

**DAHLQUIST, WILBUR LYNN,** b DeQuincy, La, Sept 2, 42; m 61; c 2. SOLID STATE PHYSICS. Educ: McNeese State Col, BS, 63; La State Univ, PhD(physics), 67. Prof Exp: Asst prof, 67-69; ASSOC PROF PHYSICS & HEAD DEPT, MCNEESE STATE UNIV, 69- Mem: Am Phys Soc. Res: Transport properties of electrons in metals at low temperatures utilizing resonance techniques. Mailing Add: Dept of Physics McNeese State Univ Lake Charles LA 70601

**DAHLSTEN, DONALD L,** b Clay Center, Nebr, Dec 8, 33; m 57; c 4. FOREST ENTOMOLOGY. Educ: Univ Calif, Davis, BS, 56; Univ Calif, Berkeley, MS, 60, PhD(entom), 63. Prof Exp: Lab technician forest entom, Univ Calif, Berkeley, 59-62; asst prof zool, Calif State Col, Los Angeles, 62-63; asst entomologist, 63-65, lectr, 65-68, from asst prof to assoc prof, 68-74. PROF ENTOM, UNIV CALIF, BERKELEY, 74- Mem: AAAS; Am Inst Biol Sci; Ecol Soc Am; Soc Am Foresters; Entom Soc Am. Res: Biological control; population dynamics of forest insects, especially parasites and predators of bark beetles; neodiprion sawflies and the Douglas fir tussock moth; evaluation of insectivorous birds in the forest and their role in natural control of forest pests. Mailing Add: Div of Biol Control Univ of Calif Berkeley CA 94720

**DAHLSTROM, BERTIL PHILIP, JR,** b Elizabeth, NJ, Aug 22, 31; m 52; c 3. PHYSICAL CHEMISTRY. Educ: Upsala Col, BS, 53; Univ Wis, MS, 55; Temple Univ, MBA, 58. Prof Exp: Teach assoc chem, Univ Wis, 53-55; res chemist, Rohm & Haas, 55-57; teach asst spec prod, 57-60; staff asst, Prod Control Dept, 60-61, asst mgr spec prod dept, 61-63, mgr, 63-68; gen mgr indust div, vpres & mem, Bd Dir, Sartomer Resins, Inc, 68-70; owner, Dahlstrom Assocs, Inc, 68-70; PRES, TREAS & DIR, CHEM INSTRUMENTS CORP, 71-; DEVELOP MGR, IONAC CHEM CO, 73- Concurrent Pos: Instr, Temple Univ, 59-61. Mem: Am Chem Soc. Res: High pressure reactions; stereospecific polymerization; physical properties of high polymers; sales management. Mailing Add: Chem Instruments Corp PO Box 399 Woodbury NJ 08096

**DAHLSTROM, ROBERT KIRCHNER,** b Eau Claire, Wis, Apr 4, 09; m 42; c 2. PHYSICS. Educ: Univ Wash, BS, 30, PhD(physics), 34. Prof Exp: Assoc prof phys sci, Eastern Wash Col Educ, 35-42; physicist, Dept Terrestrial Magnetism, Carnegie Inst Washington, 42; PHYSICIST, APPL PHYSICS LAB, JOHNS HOPKINS UNIV, 42-, ASST DIV SUPRVR, 58- Honors & Awards: Distinguished Pub Serv Award, US Navy, 61. Mem: Am Phys Soc. Res: Weapon system evaluation; guided missile development; test instrumentation. Mailing Add: 1614 Sherwood Rd Silver Spring MD 20906

**DAHLSTROM, ROBERT V,** b Conrad, Mont, Mar 1, 25; m 52; c 3. BIOCHEMISTRY. Educ: Univ Idaho, BS, 49, MS, 51; Cornell Univ, PhD(biochem), 54. Prof Exp: Biochemist biol develop, Eli Lilly & Co, 54-57; sr res biochemist, Rahr Malting Co, 57-62, vpres, Rahr Bio-Tech Labs, 62-68 & bio-tech resources, 68-72; dir res & develop, Bio-Rad Labs, 72-75; MGR RES, SAN JOSE LABS, STAUFFER CHEM CO, 76. Res: Biochemical and bioengineering investigation of fermentation processes and food biochemistry. Mailing Add: Stauffer Chem Co 1931 S 1st St San Jose CA 95112

**DAHM, ARNOLD J,** b Okaloosa, Iowa, Sept 12, 32; m 68; c 1. PHYSICS. Educ: Cent Col Iowa, BA, 58; Univ Minn, Minneapolis, MS, 60, PhD(physics), 65. Prof Exp: Fel physics, Univ Pa, 66-68; asst prof, 68-73; ASSOC PROF PHYSICS, CASE WESTERN RESERVE UNIV, 73- Mem: Am Phys Soc. Res: Liquid and solid helium and superconductors. Mailing Add: Dept of Physics Case Western Reserve Univ Cleveland OH 44106

**DAHM, CORNELIUS GEORGE,** b St Louis, Mo, Oct 23, 08; m 35; c 3. SEISMOLOGY. Educ: St Louis Univ, AB, 30, MS, 32, PhD(seismol), 34. Prof Exp: Instr, St Louis Univ, 34-36; party chief, Root Petrol Co, 36-38; party chief, Magnolia Petrol Co, 38-53; chief geophysicist, Hunt Oil Co, 53-73; CHIEF GEOPHYSICIST, INT FIV, TEX PAC OIL CO, 74- Mem: Am Geophys Union; Soc Explor Geophys. Res: Seismology and seismic protecting. Mailing Add: 11219 Shelterwood Dallas TX 75229

**DAHM, DONALD B,** b Fargo, NDak, Aug 15, 38; m 60; c 3. PHYSICAL CHEMISTRY. Educ: NDak State Univ, BS, 59; SDak State Univ, MS, 61; Ohio State Univ, PhD(phys chem), 66. Prof Exp: Asst phys chem, Ohio State Univ, 61-62; sr res engr, Martin Co, 63; asst phys chem, Ohio State Univ, 64-66; res chemist, Res Ctr, Babcock & Wilcox Co, 66-68; res specialist, Dayton Lab, Monsanto Res Corp, 68-71; mem staff, Sinvaleco Litho Prod, 71-72; tech dir, Mazer Corp, 72; TECH MGR, DAP, INC, DIV SCHERING-PLough CORP, 73- Mem: Am Chem Soc. Res: Chemical kinetics, fast reactions in gas and liquid phases and in shock tube; combustion kinetics; printing inks, chemicals; paints, coatings, caulk, sealants. Mailing Add: 5300 Huberville Rd Dayton OH 45431

**DAHM, DONALD J,** b Mahaska Co, Iowa, Oct 26, 41; m 64; c 3. STRUCTURAL CHEMISTRY. Educ: Cent Col, Iowa, BA, 63; Iowa State Univ, PhD(phys chem), 68. Prof Exp: SR RES CHEMIST, CENT RES DEPT, MONSANTO CO, 68- Mem: Am Crystallog Asn. Res: X-ray crystal structure analysis. Mailing Add: Cent Res Dept Monsanto Co 800 N Lindberg St Louis MO 63166

**DAHM, KARL HEINZ,** b Duisburg, Ger, Jan 20, 35; m 68; c 1. BIOCHEMISTRY. Educ: Univ Göttingen, Diplom-Chemiker, 61, Dr rer nat, 64. Prof Exp: Sci asst org chem inst, Univ Göttingen, 62-66; proj assoc zool, Univ Wis-Madison, 66-68; ASSOC PROF BIOL, TEX A&M UNIV, 68-. CHEM, 71- Mem: Am Chem Soc; Soc Ger Chemists. Res: Chemistry of natural products; biochemistry of insect development; insect hormones and pheromones. Mailing Add: Inst of Develop Biol Tex A&M Univ College Station TX 77843

**DAHM, PAUL ADOLPH,** b Minneapolis, Minn, Nov 15, 17; m 41; c 4. ENTOMOLOGY, BIOCHEMISTRY. Educ: Univ Ill, AB, 40, MA, 41, PhD(entom), 47. Prof Exp: From asst prof to prof entom, Kans State Col, 47-53; PROF ENTOM, IOWA STATE UNIV, 53-, CHMN DEPT, 75- Mem: Entom Soc Am; Am Asn Biol Chemists; Am Chem Soc. Res: Insect toxicology and biochemistry; economic entomology. Mailing Add: Dept of Entom 407 Sci II Iowa State Univ Ames IA 50011

**DAHMEN, JEROME J,** b Johnston, Wash, Nov 22, 19; m 47; c 5. GENETICS, REPRODUCTIVE PHYSIOLOGY. Educ: Univ Idaho, BS, 47; Ore State Univ, MS, 52, PhD(genetics), 66. Prof Exp: County agent, Exten Serv, 47-55, animal husbandman, 55-58, res prof animal sci, Caldwell Br & supt, Agr Exp Sta, 58-74, PROF ANIMAL SCI & ANIMAL SCIENTIST, DEPT ANIMAL SCI, UNIV IDAHO, 74- Mem: Am Soc Animal Sci. Res: Management; physiology; breeding, sheep, wool and meat. Mailing Add: Dept of Animal Sci Univ of Idaho Moscow ID 83843

**DAHMER, LIONEL HERBERT,** analytical chemistry, see 12th edition

**DAHMS, ARTHUR STEPHEN, JR,** b Mankato, Minn, Sept 12, 43; m 66; c 2. BIOCHEMISTRY. Educ: Col St Thomas, BS, 65; Mich State Univ, PhD(biochem), 69. Prof Exp: NSF & AEC fels chem, Univ Calif, Los Angeles, 69-71, lectr, 71-72; asst prof, 72-75; ASSOC PROF CHEM, SAN DIEGO STATE UNIV, 75- Mem: AAAS; Am Chem Soc. Res: Bioenergetics; structure and function of biological membranes; membrane transport; oxidative phosphorylation; enzymology of carbohydrate biodegradation. Mailing Add: Dept of Chem San Diego State Univ San Diego CA 92128

**DAHMS, FREDRIC ARTHUR,** b Kitchener, Ont, July 12, 35; m 58; c 2. GEOGRAPHY. Educ: Univ Western Ont, BA, 57, MA, 61; Univ Auckland, PhD(geog), 66. Prof Exp: High sch teacher, 57-61; teacher, Kitchener-Waterloo Collegiate, 61-63; asst prof, 66-69, chmn dept, 67-69; ASSOC PROF GEOG, UNIV GUELPH, 69-, CHMN DEPT, 72- Concurrent Pos: Consult, Planning Div, Auckland Regional Authority, N 23 63-66 & Cent Ont Regional Develop Coun, 68. Mem: Ass Am Geogr; Can Assn Geog; NZ Geog Soc. Res: Urban morphology; transport technology and commuting; historical and cross-cultural urban studies. Mailing Add: Dept of Geog Col of Social Sci Univ of Guelph Guelph ON Can

**DAHMS, HARALD,** b Bad Freienwalde, Ger, July 24, 34; m 52. PHYSICAL CHEMISTRY, ELECTROCHEMISTRY. Educ: Univ Halle, MS, 58; Dresden Tech Univ, Dr rer nat(phys chem), 60. Prof Exp: Chief asst phys chem & electrochem, Dresden Tech Univ, 60-61; res fel electrochem, Univ Pa, 61-63; sr res staff mem, Int Bus Mach Corp, 63-69; CONSULT, DAHMS LABS, 69- Mem: Electrochem Soc: Sigma Xi; Am Chem Soc. Res: Structure of interfaces; electroplating; electrode kinetics; electroanalysis. Mailing Add: Dahms Labs 22 Lakeview Rd Ossining NY 10562

**DAHMS, REYNOLD GEORGE,** b Verden, Okla, Oct 7, 12; m 62; c 1. ECONOMIC ENTOMOLOGY. Educ: Okla Agr & Mech Col, BS, 33, MS, 35; Kans State Col, PhD(entom), 42. Prof Exp: Under sci aide, Div Cereal & Forage Insect Invests, Bur Ento. & Plant Quarantine, USDA, Lawton, Okla, 35-41; ass entomologist, 41-42, entomologist, Stillwater, 46-54; asst head cereal forage insects sect, Entom Res Div, Agr Res Serv, 54-57; head cereal insects sect, Field Crops Insects & Bee Cult Res Br, 57-60, chief, Grain & Forage Insects Res Br, 60-72, dir, Iowa-Mo Area, Agr Res Serv, Columbia, Mo, 72-73; RETIRED. Concurrent Pos: Asst, Okla Exp Sta, 35-42; ass entomologist, Okla Agr & Mech Col, 46-47; ass entomologist, 47-53, entomologist, 53-54. Mem: Am Entom Soc. Res: Resistance of crop plants to insects; control of crop insects with insecticides. Mailing Add: 2673 Loxley Ave Fayetteville AR 72701

**DAHMS, THOMAS EDWARD,** b Springfield, Mass, May 14, 42; m 64; c 2. PHYSIOLOGY. Educ: Col of Wooster, BA, 64; Univ Calif, Santa Barbara, PhD(physiolog), 70. Prof Exp: Asst res physiologist, Inst Environ Stress, Univ Calif, Santa Barbara, 70-74; ASSST PROF PHYSIOL, MED SCH, ST LOUIS UNIV, 74- Mem: AAAS; Am Physiol Soc; NY Acad Sci. Res: Influence of environmental factors on cardiovascular and respiratory systems. Mailing Add: Dept of Physiol St Louis Univ Med Sch St Louis MO 63104

**DAHMUS, MICHAEL E,** b Waterloo, Iowa, Feb 20, 41; m. BIOCHEMISTRY. Educ: Iowa State Univ, BS, 63; Calif Inst Technol, PhD(biochem), 68. Prof Exp: Fel, Calif Inst Technol, 68-69; ASSST PROF BIOCHEM, UNIV CALIF, DAVIS, 69- Res: Biochemical aspects of gene regulation in higher organisms. Mailing Add: Dept of Biochem & Biophys Univ of Calif Davis CA 95616

**DAHN, CONRAD CURTIS,** b Utica, NY, Oct 10, 39; m 62; c 2. ASTRONOMY. Educ: Wesleyan Univ, BA, 61; Case Inst Technol, PhD(astron), 67. Prof Exp: Astron, Naval Observ, Washington, DC, 67-70; ASTRON, NAVAL OBSERV, FLAGSTAFF STA, 70- Mem: AAAS; Am Astron Soc; Sigma Xi. Res: Astrometry; trigonometric parallax measurements of nearby stars; interstellar matter; studies of the light scattering and/or extinction properties of interstellar dust particles. Mailing Add: Naval Observ Flagstaff Sta PO Box 1149 Flagstaff AZ 86001

**DAHNEKE, BARTON EUGENE,** b San Jose, Calif, Apr 4, 39; m 61; c 5. ENVIRONMENTAL HEALTH, PARTICLE PHYSICS. Educ: Brigham Young Univ, BS, 63; Univ Minn, MS, 65, PhD(mech eng), 67. Prof Exp: NIH res fel, Calif Inst Technol, 67-69; res scientist, Inst Aerobiol, 69-72; ASSST PROF BIOPHYS, UNIV ROCHESTER, 72- Res: Measurement of airborne particulates; diffusion theory and practice; kinetic theory of particles. Mailing Add: Dept of Biophys Univ of Rochester Rochester NY 14627

**DAIBER, FRANKLIN CARL,** b Middletown, NY, Oct 19, 19; m 53; c 2. ICHTHYOLOGY, ECOLOGY. Educ: Alfred Univ, AB, 41; Mich State Col, MS, 47; Ohio State Univ, PhD(icthyo), 50. Prof Exp: Lab asst, Alfred Univ, 40-41; asst, Mich State Col, 41-42 & 46-47; res asst, Ohio State Univ, 47-49; asst prof, Alfred Univ, 49-52; from ass prof to assoc prof, 52-68. PROF BIOL SCI, UNIV DEL, 68- Mem: Am Soc Ichthyologists & Herpetologists; Ecol Soc Am; Am Fisheries Soc; Sigma Xi. Res: Biology of fish; tide marsh ecology. Mailing Add: 37 Kells Ave Newark DE 19711

**DAICOFF, GEORGE RONALD,** b Granite City, Ill, Nov 10, 30; m 72; c 2. SURGERY. Educ: Ind Univ, AB, 53, MD, 56. Prof Exp: Extern, Sunnyside Sanitorium, Indianapolis, 54-56; intern, Univ Chicago, 56-57, from jr asst resident to sr asst resident surg, 57-59; instr & sr resident, 61-62, chief resident gen surg & instr, 62, instr thoracic and cardiovasc surg, 63; from ass prof to assoc prof, 63-70. PROF THORACIC & CARDIOVASC SURG & CHIEF DIV, COL MED, UNIV FLA, 70- Concurrent Pos: Schwepple Found res fel, 63-66; fel cardiovasc surg, Mayo Clin, 66; vis colleague, Royal Postgrad Med Sch, Univ London, 65. Mem: Am Col Surg; Am Asn Thoracic Surg; Am Col Cardiol; Int Soc Cardiol; Soc Thoracic Surgeons. Res: Cardiovascular surgery. Mailing Add: Dept Thoracic & Cardiovasc Surg Univ of Fla Sch of Med Gainesville FL 32601