

PhD Degrees and Research Students  
Supervised by  
M.L. Jackson

Aldrich, D.G.	1941-43
Al-Rawi, A.H.	1965-69
Brown, B.E.	1952-57
Chang, S.C.	1954-56
Chapman, S.L.	1966-70
Cole, C.V.	1948-50
Coleman, R.	1939-41
Corey, R.B.*	1949-52
DeMumbrum, L.E.	1953-55
Dion, H.G.	1939-42
Dixon, J.B.	1956-58
Dolcater, D.L.	1966-69
Eck, Paul	1955-57
El-Attar, H.*	1965-70
Evans, E.J.*	1949-52
Fanning, D.S.	1960-64
Frolking, T.A.*	1976-85
Glenn, R.C.	1957-59
Hanna, A.B.	1959-61
Hashimoto, I.*	1956-61
Hellman, N.N.	1940-43
Henderson, J.H.*	1965-71
Hseung, Y.	1949-51
Hsu, P.H.	1957-59
Huang, P.M.	1962-65
Kaddou, N.S.	1957-60
Kaufman, A.	1950-54
Kiely, P.V.*	1960-64
Kinniburgh, D.G.*	1969-71
Kittrick, J.A.*	1951-55
Lee, S.Y.	1969-73
Lim, C.H.	1977-81
Mackie, W.Z.	1946-49
Marriott, L.F.*	1950-55
Massey, H.F.*	1949-52
May, H.M.*	1970-78
Mehra, O.P.	1956-59
Menzel, R.G.	1947-50
Milford, M.H.	1959-62
Mokma, D.L.	1966-71
Orth, L.E.	1947-51
Pennington, R.P.	1947-49
Raman, K.V.	1962-65
Roth, C.B.	1965-68
Sarma, V.A.	1959-63
Sawhney, B.L.	1954-57

Sayin, M.*	1969-75
Sridhar, K.	1969-73
Stam, A.C.*	1976-78
Starostka, R.W.	1948-50
Swindale, L.D.	1953-55
Tamura, T.*	1949-52
Tanner, C.B.	1946-50
Vanden Heuvel, R.G.*	1950-54
Volk, V.V.	1962-65
Weaver, R.M.	1966-70
White, J.L.	1946-47
Whittig, L.D.*	1948-54
Wildman, W.E.	1965-67
Zubriski, J.C.*	1947-50

\*Supervision of M.S. degree also.

### Postdoctoral and Sabbatic Programs Directed by M. L. Jackson

1. Dr. B. Chatterjee, Department of Chemistry, Bengal Engineering College. Sibpur Howrah, West Bengal, India (Department of Education, Government of India support) September, 1946 -September, 1947. Research In soil colloid chemistry.
2. Dr. G. D. Sherman, Chairman, Department of Soils, University of Hawaii, Honolulu, Hawaii (Sabbatical leave) June - August, 1951. Research on chemical weathering of minerals of soils.
- 3- Mr. N. H. Aguilera (also N. Aguilera-Herrera), Instituto Politecnico Nacional, Mexico, D.F., Mexico (Rockefeller Foundation support) December, 1951 - June, 1953. Research on soil colloids including free iron oxide removal.
4. Dr. A. W. Taylor, Soil Chemist, Rothamsted Exp. Station, Harpenden Herts, England (Wis. Alumni Research Foundation support) October, 1954 - July, 1955. Research on phosphate potential in soils in relation to soil fertility.
5. Dr. W. R. Schmehl, Agronomist, Department of Agronomy, Colorado Agric. and Mech. College, Fort Collins, Colorado (Sabbatical leave and Wisconsin Alumni Research Foundation support) September, 1954 - August, 1955. Research on mineral colloids of soils of arid regions.
6. Dr. N. L. Galvez, Chairman, Department of Soils, University of Philippines, Laguna, Philippines (Guggenheim Foundation support) January, 1955 - August, 1956. Research on colloidal minerals of important agricultural soils of the Philippines.
7. Dr. L. D. Swindale, Soil Chemist, New Zealand Soils Bureau, Wellington, New Zealand (Wis. Alumni Research Foundation support) July, 1955 - August, 1956. Research on the chemical weathering of minerals in soils developed on rhyolite in New Zealand.
8. Dr. S. Aomine, Professor of Soils, Faculty of Agriculture, Kyushu University, Fukuoka, Japan (Rockefeller Foundation support) July, 1956 - August, 1957. Research on the colloidal minerals in Ando soils of Japan developed on volcanic ash.
9. Dr. J. B. Dixon, Assistant Professor of Soil Mineralogy, Department of Soils, Auburn University, Auburn, Alabama (National Science Foundation support) September, 1958 -August, 1959. Research on interlayer deposits of aluminum in soil clays in relation to soil genesis.
10. Dr. Fuat Saatci, Department of Soil Science and Plant Nutrition, Aegean University Faculty of Agriculture, Bornova, Izmir, Turkey (Educational grant from Aegean University) September, 1959 - August, 1961. Research on clay mineral analysis of representative soils of Izmir region, southwestern Turkey.
11. Dr. S. P. Mitra, Lecturer in Soil Science, Sheila Dhar Institute of Soil Science, University of Allahabad, Allahabad, India. Gold Medalist, Indian Academy of Science. (Wisconsin Alumni Research Foundation support) November. 1959 - January, 1960. Research on mineralogical analysis of a few soils of India.
12. Dr. K. Wada, Department of Soil Science, Kyushu University, Fukuoka, Japan. (Rockefeller Foundation support) July. 1960 - August, 1961. Research on chemical forms of phosphorus in soils as influenced by pH, and method of their determination.
13. Dr. H. Saeki Sasayama, University of Agriculture, Hyogo Prefecture, Japan (Hyogo University of Agriculture support) September, 1960 - March, 1961. Research on the chemical separation of dicalcium phosphate from other phosphate forms in soils.
14. Dr. O. L. Baykan, Ataturk University, Ziraat Faculty, Erzurum, Turkey (U.S. International Cooperation Administration support) September, 1961 - August, 1962. Research on mineral composition of soils derived from basalt in eastern Turkey.
15. Dr. U. Schwertmann, Institute fur Bodenkunde, Hannover-Herrenhausen, West Germany (Ministerium fur Ernahrung, Landwirtschafte und Forsten der Bundesrepublik Deutschland support) March. 1962 - November, 1962. Research on the nature of soil acidity--the hydroxy aluminum functional group and the third buffer range of acid soils.
16. Dr. L. D. Whittig, Department of Soils and Plant Nutrition, University of California, Davis, Calif. (University of California sabbatic leave support and travel expense grant from the Graduate Research Committee, University of Wisconsin), September, 1963-March 1964. Research on clay mineralogy of soils derived from an andesite flow under various climates in the Sierra Nevada range.
17. Dr. C. A. Alexiades, Soils Laboratory, Department of Agriculture, University of Thessaloniki, Thessaloniki, Greece (U.S. International Exchange of Persons Program. Fulbright-Hays Act and National Academy of Sciences support). January, 1964-December, 1964. Research on soil mineralogical composition determinations; vermiculite, montmorillonite, chlorite and other minerals in clays of soils of the temperate regions.

18. Dr. J. M. deVilliers, Department of Soil Science, University of Natal, Pietermaritzburg, Natal, Republic of South Africa (University of Natal sabbatic leave and U.S. Atomic Energy Commission support). July 1964-Jan. 1966. Research on the electron microscopic morphology of weathering vermiculite-mica surfaces. Sesquioxide coatings effect on cation exchange; aluminum chlorite origin of a pH dependent CEC; gibbsite and allophane determinations in highly weathered soils of tropical regions.
19. Dr. A. C. Moniz, Institute of Agronomy of Campinas, Sao Paulo, Brazil (U.S.A.I.D. support). January, 1965-January, 1967. Research on tropical soil mineralogical composition as influenced by weathering and hydrothermal alteration; Terra Roxas of Santa Paulo.
20. Dr. V. V. Volk, Ohio State University, Columbus, OH (U.S. National Science Foundation, U.S. Atomic Energy Commission. and Wis. Ag. Expt. Sta. support). September, 1965-September, 1966. Research on chemical mechanisms of ionic exchange, detergent adsorption on soils, phosphate adsorption on soils. and sesquioxide coatings on micaceous vermiculite.
21. Dr. G. P. Briner, University of Melbourne, Victoria, Australia (Wis. Ag. Exp. Sta. support). October 1965-June, 1966. Research on mineralogical composition and origin of montmorillonitic black soils as contrasted with red soils under similar climates.
22. Dr. G. S. R. Krishna Murti, Department of Agricultural Physics, Indian Agricultural Research Institute, Delhi (Rockefeller Foundation support). Nov., 1965-April, 1966. Research on adsorption of phosphate and alkyl benzene sulfonate compounds as influenced by citrate extractable iron and aluminum and mineralogical composition of soils.
23. Dr. E. G. Lotse, Department of Pedology, College of Agriculture, Uppsala, Sweden. (U.S. Atomic Energy Commission support). September, 1956-Aug., 1967. Research on cation exchange capacity and selectivity of micaceous vermiculite of soils with lyotropic series cations.
24. Dr. T. W. M. Levelt, University of Amsterdam, The Netherlands. (University. of Amsterdam and University of Wisconsin support). September, 1967-August, 1968. Research on geomorphic relations to tropospheric dust accumulation in Hawaiian soils and on mineralogy of soils of Surinam.
25. Dr. Harvey E. Doner, University of California, Riverside. (U.S. Atomic Energy Commission and U.S. National Science Foundation support). January, 1968-June, 1968. Research on cation exchange capacity, fission product cation fixation, and free energy relationships to solute activities in micaceous vermiculite genesis in calcareous soils.
26. Dr. J. Keith Syers, University of Newcastle upon Tyne, England and University of Canterbury, Lincoln College. New Zealand. (U.S. Atomic Energy Commission and U.S. National Science Foundation support). Project Associate. January, 1967-May, 1970. Research on cation exchange of micaceous vermiculite in relation to surface morphology. and on ionic: factors in expansible clay genesis.
27. Dr. Josef A. Veith, Technical University, Berlin, Germany. (U.S. Atomic Energy Commission support). Project Associate, September, 1971-November, 1972. Research on layer charge decrease on alteration of biotite to vermiculite, which affects cesium fixation; non-influence of iron valence change on layer charge change; ejection of iron and magnesium from the structure.
28. Dr. Gordon J. Churchman, University of Otago, Dunedin, New Zealand. (U.S. National Science Foundation support). Project Associate, October 1971-July 1973. Research on solute activities in clay matrix solution in relation to authigenic expansible clay formation in soils; oxygen isotopic characterization of detrital quartz in shales and soil parent materials of U.S.A. in relation to aerosolic dust.
29. Dr. Suck Y. Lee, Seoul National University, Korea. and University of Saskatchewan, Saskatoon, Canada. (U.S. Atomic Energy Commission and U.S. National Science Foundation support). Project Associate, Dec., 1973-Sept., 1975. Fission particle tracks in micaceous vermiculites; ultramicrotomy of phyllosilicates as related to cation fixation and structural layer interstratification; oxygen isotopic ratio characterization of detrital quartz in Eurasian sediments and soil parent materials in relation to aerosolic dust.
30. Dr. Komarneni Sridhar, Andhra Pradesh University, Bapatla, India and Indian Agricultural Research Institute, New Delhi, India. (U.S. Atomic Energy Commission and U.S. National Science Foundation support). Project Associate, December 1973-February 15, 1976. Silicon for aluminum mechanism of layer charge decrease; relationship of charge to osmotic swelling in blister-like local areas of micaceous vermiculite shown by electron microscopy; oxygen isotope variation in detrital aerosolic quartz as a function of diversity of source in sediments and soils.
31. Dr. Johan Le Roux, University of Natal, Pietermaritzburg, Republic of South Africa. (U.S. Energy Research and Development Administration and U.S. National Science Foundation support). Project Associate, May, 1975-December, 1975. Oxygen isotopic ratios of fine silt quartz in southern Africa as a measure of the Permian Period glacial and fluvial erosion from the Gondwanaland supercontinent suture mountains eroding into southern Africa basin, in contrast to those of quartz formed under warmer paleoclimates.

32. Dr. D. H. Abdel-Kader, Alexandria University, Alexandria, Egypt. (University of Wisconsin and U.S. Energy Research and Development Administration support). Project Associate, August, 1976-September, 1977. Cs reaction with kaolinite and Li dimethyl sulfoxide reaction in expansion of clays. Oxygen isotopic differentiation of eolian layers over underlying horizons.
33. Dr. Antonio Violante, University of Napoli, Naples, Italy. (NATO support). Project Associate, August, 1976-October, 1977. Synthesis of aluminum oxide minerals as influenced by phyllosilicate clays, citrate, pH, and inorganic anions. Synthesis of pure nordstrandite achieved.
34. Professor Toshio Higashi, Department of Agricultural Chemistry, Faculty of Agriculture, Yamaguchi University, Yamaguchi, Japan. (Japanese sabbatic support). Visiting Scientist, September 1977-August 1978. Showed advantage of a trace of water with CsCl at 80°C in DMSO expansion of fireclay type kaolinite after three-minute grinding. Established interlayer CEC permanent charge-in CsCl intercalated spheroidal and tubular halloysite.
35. Professor Luo Jia Xian, Academia Sinica, Institute of Soil Science, Nanjing, P.R.C. (China), March, 1983-October, 1984. (P.R.C. Support). Detrital quartz and micas in aerosols of Eurasia. Effect on human food chain. Mica potassium release mechanism on drying soils.
36. Professor Li Chang-Sheng, Academia Sinica, Institute of Environmental Geochemistry, Beijing, P.R.C. (China), March, 1983-October, 1985. (P.R.C. Support). Detrital dusts of Eurasia and trace element content in relation to nutrition.
37. Professor Zhang Ji-Zhen, Academia Sinica, Anhui Agricultural College, Hefei, P.R.C. (China), March, 1984 - June, 1986. (P.R.C. Support). The food chain: crop contents of trace elements in relation to human nutritional requirements for health.