VITA

JOSEPH WILLIAM STUCKI

A. General Background

1. Personal

Date of Birth: February 4, 1946
Place of Birth: Rexburg, Idaho, USA
Marital Status: Married Penny Jo Nickel, August 9, 1968; six children; nine grandchildren
Office Address: Department of Natural Resources and Environmental Sciences, University of Illinois, W-321 Turner Hall, 1102 South Goodwin Avenue, Urbana, IL 61801
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2. Education
   a. Ricks College, Rexburg, Idaho, Junior College Diploma, Chemistry, 1968
   b. Brigham Young University, Provo, Utah, B.S., Chemistry, 1970
   c. Utah State University, Logan, Utah, M.S., Soil Chemistry, 1972
   d. Purdue University, Lafayette, Indiana, Ph.D., Soil Physical Chemistry, 1975
   e. Ph.D. Thesis: Chemical and Spectroscopic Analysis of Oxidation-Reduction Mechanisms for Structural Iron in Nontronite. C. B. Roth, Advisor.
3. Professional Positions
   a. National Science Foundation, Professional Assistant, Summer, 1975
   b. University of Illinois - Successively Assistant, Associate, and Full Professor of Soil Physical Chemistry (1976 to present)
   c. University of Poitiers, France, Visiting Professor, December, 1993, to January, 1994.
   d. University of Illinois; College of Agricultural, Consumer, and Environmental Sciences; Interim Assistant Dean and Director, Information Technology and Communication Services; 1997-1998.
4. Membership in Scientific Societies
   a. American Society of Agronomy
   b. The Clay Minerals Society
   c. Gamma Sigma Delta
   d. International Society for the Study of Clays
   e. International Society of Soil Science
   f. Mineralogical Society of Great Britain
   g. Sigma Xi
   h. Soil Science Society of America

B. Honors and Awards

1. Distinguished Visiting Scientist, U.S. Environmental Protection Agency, Environmental Research Laboratory, Athens, Georgia, 1990-1992.

2. Marion L. and Chrystie M. Jackson Mid-Career Clay Scientist Award from The Clay Minerals Society, 1992.
3. Invited to introduce Dr. Philip F. Low, Recipient of the 1992 Distinguished Member Award of The Clay Minerals Society, Minneapolis, November 22, 1992.
4. Fellow, Soil Science Society of America, 1993
5. Fellow, American Society of Agronomy, 1994
6. Distinguished Alumni Award, Ricks College, Rexburg, Idaho, 1995
7. Marion L. and Chrystie M. Jackson Soil Science Award, Soil Science Society of America, 1995
8. Invited to introduce Darrell G. Schulze, 1996 Recipient of the Marion L. and Chrystie M. Jackson Mid-Career Clay Scientist Award of The Clay Minerals Society, Gatlinburg, Tennessee, June 17, 1996.
9. Program Chairman, 37th Annual Meeting of The Clay Minerals Society, Loyola University of Chicago, Chicago, Illinois, June 24-29, 2000.
10. Academic Host (visiting scientist), Ecole Polytechnique Federal de Lausanne, Switzerland, June-July, 2003.
11. Visiting Professor, Institute for Advanced Interdisciplinary Studies and Department of Chemistry (Cátedra do Instituto de Estudo Avançados Transdisciplinares), Federal University of Minas Gerais, Belo Horizonte, Brazil; July-September, 2005.
12. Invited Workshop on Iron Redox Processes in Clays, Jointly Sponsored by the Departments of Chemistry, University of Buenos Aires and La Plata University, Argentina, August 15-19, 2005.
13. Invited Seminar, Department of Geology, Miami University of Ohio, Oxford, Ohio, February 22-23, 2006.

C. Summary of National Professional Activities

1. Offices Held
   a. Member of the Council of The Clay Minerals Society, 1984-1987.
   b. Associate Editor, **Soil Science Society of America Journal,** 1984-1987.
   c. Associate Editor, **Clays and Clay Minerals,** 1985-1987.
   d. Successively Chair-elect, Chair, and Past-Chair of Division S-9, Soil Science Society of America, 1988-1991.
   e. Member of the Policy and Administration Committee of The Clay Minerals Society, 1986-1989; served as Chair in 1988-89.
   f. Member of the Board of Governors of the Consortium for Advanced Radiation Sources, University of Chicago, 1991-1992.
   g. Vice-Chair of the USDA/CSRS North Central Research Committee No. 174 on Synchrotron X-ray Sources for Soil Science Research, 1992-1997.
   h. Member of the Soil Science Society of America Book Series Committee, 1992-1997; Chair, 1994-1996.
   i. Successively Vice-President-elect, Vice-President, President, and Past-President of The Clay Minerals Society, 1994-1999.
   n. Member of the Bailey Award Selection Committee, The Clay Minerals Society, 1999-2000.

o. Program Chair, 37th Annual Meeting of The Clay Minerals Society, Loyola University of Chicago, June 24-29, 2000.
p. Chair, Membership and Advancement Committee, The Clay Minerals Society.

2. Regularly attends the annual meetings of the Soil Science Society of America, American Society of Agronomy, and The Clay Minerals Society; and less frequently the American Chemical Society, Materials Research Society, and the American Geophysical Union. Presented many papers at these meetings, presided at sessions, and organized symposia.
3. Invited member of the Mid-Point Evaluation Panel for the North Central Computer Institute, July, 1984.
4. Review Panel member for USDA Small Business Innovative Research Grants Program, August, 1984.
5. Member of the Ad Hoc ESCOP Subcommittee on "Decision Models in Computer Use in Agricultural Research," of the ESCOP Special Initiatives Committee, October, 1984.
6. Invited to visit the Planetary Sciences Section and tour the Moon Rock Laboratory at the NASA Johnson Space Center, Houston, Texas, October 26-27, 1990.
7. Program Chair for Division S-9, 1990 National Meetings of the Soil Science Society of America.
8. Review Panel Chair, U. S. Department of Energy, Co-Contaminant Chemistry Subsurface Science Research Program, Bethesda, Maryland, March 5-7, 1991.
9. Invited panelist, Department of Energy OHER Field Experimentation Workshop, Battelle Pacific Northwest Laboratories, Richland, Washington, July 16-17, 1991.
10. Graduate of the ESCOP/ACOP Leadership Development Program, Class V, Indianapolis, Indiana, September 16-23, 1995; and Washington, D.C., June 4-7, 1996.
11. Member of Department of Energy, Basic Sciences and Environmental Safety Geochemistry Grant Applications Panel, Washington, D.C., June 25-26, 1996.
12. Consultant for English China Clays International, Huber Kaolin Company, Engelhard Minerals Corporation, and Oil-Dri, Inc.
13. Attended the American Geological Institute member societies council meetings on behalf of The Clay Minerals Society, September 29-30, 1997, and May 18-19, 1998.
14. Invited to visit the Skidaway Institute of Oceanography, January 25-27, 1999.
15. Invited participant in the Bouyoucos Conference on Environmental Chemistry at the Clay-Water Interface, March 5-8, 2000, Honolulu, Hawaii.
16. Visited the Minerals Characterization Division, Los Alamos National Laboratory, New Mexico, June, 2001.
17. Invited speaker at the Fire Research Institute of The National Institutes for Standards and Testing, Gaithersburg, Maryland, June 26, 2001.
18. Invited speaker at the Workshop on Degradation of Organic Contaminants at Clay-Mineral and Related Surfaces, June 16, 2001, Madison, Wisconsin (sponsored by The Clay Minerals Society).

19. Invited speaker at the Symposium on Mechanistic Aspects of the Uptake of Hydrophobic Organic Compounds (HOCs) by Soils and Sediments, Charlotte, North Carolina, October 23, 2001 (sponsored by the Soil Science Society of America).
20. Lead Organizer, Bouyoucos Conference on Electron Transfer and Environmental Biogeochemistry of Iron in Phyllosilicates, San Antonio, TX, January 14-17, 2004 (sponsored by the Soil Science Society of America).
21. Panel Member, NIH/CSR, 2003-2004.
22. Invited speaker at the Symposium on Electron Transfer Processes at Mineral Surfaces, Seattle, Washington, November 2-3, 2004 (sponsored by the Soil Science Society of America).

D. Summary of International Professional Activities

1. Director of the NATO Advanced Study Institute (ASI) on Advanced Chemical Methods for Soil and Clay Mineral Research, held at the University of Illinois July 23 to August 4, 1979. This ASI was conducted under the auspices of the Scientific Affairs Division of the North Atlantic Treaty Organization and the National Science Foundation. During this Institute, the methods of nuclear magnetic and electron spin resonance, neutron scattering, Mössbauer, photoacoustic, and X-ray photoelectron spectroscopy were studied in the context of their applications to clay and soil mineral systems. This forum provided a rich opportunity for earth scientists to increase their ability to characterize complex natural systems. Eleven internationally prominent scientists were invited to lecture on these topics, and more than 250 applications were received from scientists around the world seeking acceptance to this two-week course. The 85 participants who were selected represented 26 different countries and a dozen different disciplines from physics to soil morphology. Events associated with this Institute required advance planning of almost one year, and the completion of the reviewed and extensively edited version of the course proceedings required more than one additional year.
2. Attended NATO Advanced Study Institutes on the Scientific Basis of Flocculation held at Cambridge University, England, July 4-15, 1977, and on Percolation Processes, Espinho, Portugal, July 17-29, 1978.
3. Director of the NATO Advanced Study Institute on Iron in Soils and Clay Minerals, held July 1-13, 1985, in Bad Windsheim, West Germany. Responsibilities included all aspects of the Institute from securing financial support to directing the activities of authors and organizing committee. The 75 participants who were selected represented 19 different countries and many different disciplines. The lectures presented during this Institute were revised, extensively reviewed and edited, and published in a book titled **Iron in Soils and Clays Minerals**. He organized and attended meetings of the organizing committee in September, 1984, and in April, 1985. In addition to his duties as Director of this Institute, he delivered a two-hour lecture about iron in smectites.
4. Attended the following foreign or international meetings:
    a. International Association for the Study of Clays (AIPEA): Oxford, England, July, 1978; Bologna and Pavia, Italy, 1981; Denver, Colorado, 1985; Strasbourg, France, 1989; and Adelaide, Australia, July, 1993; Ottawa, Ontario,

Canada, June, 1997; Bahia Blanca, Argentina, July, 2001. Presented a total of 14 volunteered and 2 invited papers, and chaired one symposium.

b. International Soil Science Society, Symposium on Water and Solute Movement in Heavy Clay Soils, Wageningen, The Netherlands, August 27-31, 1984.
c. Meetings of the European Clay Groups, Seville, Spain, September 7-10, 1987 (presented one volunteered paper); and Leuven, Belgium, August 20-23, 1995 (co-authored one volunteered paper).NATO Advanced Research Workshop on Swelling Clays and Expansive Soils, Cornell University, Ithaca, New York, August 12-16, 1991. Presented an invited paper and chaired one session.
d. International Society of Soil Science Work Group MO First Workshop, Impact of Interactions of Inorganic, Organic, and Microbial Soil Components on Environmental Quality, Edmonton, Alberta, August 11-15, 1992. Presented an invited paper and chaired one session.
e. Czechoslovak Clay Minerals Society, Bratislava, Czechoslovakia, August 31 to September 4, 1992. Presented an invited paper.
f. French Society of Mineralogy and Crystallography, Orleans, France, September 6-9, 1992. Presented an invited paper.
g. International Geographical Union, Moscow State University, August 14-16, 1995. Chaired one session and presented one paper.
h. Third International Conference on Solid State Chemistry, Bratislava, Slovakia, July 6-12, 1996. Chaired one session and presented one invited plenary lecture.
i. Annual Conference of the Czech and Slovak Clay Minerals Societies, Banska Stiavnica, Slovakia, September 2-6, 1996.
j. Special conference of the French Clay Group honoring Dr. Victor A. Drits on his retirement. Presented one invited paper and chaired one session. March 19-20, 1997.
k. International Workshop on Surface Chemical Processes in Natural Environments, Ascona, Switzerland, October 1-6, 2000.
l. Middle European Clay Conference, Stara Lesna, Slovakia, September 7-15, 2001.
m. Fifth International Conference on Solid State Chemistry, Bratislava, Slovakia, July 7-12, 2002. Plenary Lecturer.
n. International Symposium on Clays in Natural and Engineered Barriers for Radioactive Waste Confinement, Reims, France, December 9-12, 2002 (sponsored by ANDRA, the French agency for radioactive waste management). Was a member of the organizing committee; chaired one session.
o. Invited Speaker at the Danish Soil Science Society Meeting, Copenhagen, December 16, 2002.
p. Visiting Professor, Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland, June 13 to July 18, 2003.
q. EuroClay'03, Modena, Italy, June 22-25, 2003.
r. International Workshop on Biochemical Processes Involving Iron Minerals in Natural Waters, Monte Veritá, Ascona, Switzerland; was an invited Keynote speaker.

s. Japan Soil Physics Society, Symposium on Interface Science and Measurement in Soil Physics, Okayama, Japan, November 22, 2003; presented an invited keynote address.
t. Invited seminar, Faculty of Environmental Science and Technology, Okayama University, Okayama, Japan, November 24, 2003.
u. Invited seminar, Department of Geosciences, University of Aveiro, Portugal, November 16-18, 2004.
v. Invited speaker, Conference on Biogeochemistry of the Cycle of Iron: Green Rusts and Fougerite," sponsored by the Académie des Sciences de France, Paris, December 10, 2004.
w. Invited participant, session chairman, and member of the organizing committee for the conference on "Clays in natural and engineered barriers for radioactive waste confinement," Tours, France, March 13-18, 2005, sponsored by ANDRA, the French Agency for Radioactive Waste Management.

5. Hosted the sabbatical leaves of
   a. Bernard A. Goodman from the Macaulay Institute for Soil Research, Aberdeen, Scotland, April, 1982, to June, 1983.
   b. Dr. Peter Komadel from the Institute for Inorganic Chemistry, Slovak Academy of Sciences, Bratislava, Czechoslovakia, August, 1986, to September, 1987; March to June, 1992; and August to November, 2002, Fulbright Visiting Fellow.
   c. Dr. Pascal Boivin, Swiss Federal Institute of Technology, Lausanne, Switzerland, August 8, 2003 to October 6, 2003.
   d. Dr. Fabienne Favre Boivin, Swiss Federal Institute of Technology, Lausanne, Switzerland, August 8, 2003 to November 26, 2003.
   e. Dr. Jaime W. V. de Mello, Department of Soil Science, Federal University of Viçosa, Brazil, October 6, 2003 to September 30, 2004.
   f. Dr. José Domingos Fabris, Department of Chemistry, Federal University of Minas Gerais, Belo Horizonte, Brazil, March 3, 2006, to June 30, 2006 (Fulbright Visiting Fellow).
6. Hosted visits to the University of Illinois by
   a. Dr. René Prost, Head, Soils Research Station, National Institute for Agronomic Research (INRA), Versailles, France, August, 1985.
   b. Dr. Enver Murad, Technical University of Munich, West Germany, July, 1986. Dr. Murad is a well-known specialist in the Mössbauer spectroscopic characterization of iron oxides.
   c. Mr. George Brown, Rothamsted Experiment Station, Harpenden, England, November, 1986. Mr. Brown was one of the world's leading authorities on the X-ray identification and crystal structures of clay minerals.
   d. Dr. Daniel Tessier from INRA, Versailles, France, May, 1987; August, 1991; and November, 1992. Dr. Tessier has attracted international acclaim for his electron microscopy work showing the fabric of clay minerals in wet systems.

e. Dr. Blahoslav Cicel, Director, Institute for Inorganic Chemistry, Slovak Academy of Sciences, Bratislava, Czechoslovakia, October 31 to November 2, 1990.
f. Dr. Charles-Henri Pons, Department of Physics, University of Orleans, France, April 20 to May 3, 1991; and October to November, 1992.
g. Professor Alain Decarreau, Laboratory for Surface Petrology, University of Poitiers, France, April 17 to May 1, 1993. Professor Decarreau was designated a George A. Miller Visiting Professor.
h. Dr. Nikolai M. Kocherginsky, Semonov Institute for Chemical Physics, Russian Academy of Sciences, Moscow; 1994-95.
i. Dr. Peter Komadel, Head, Department of Hydrosilicates, Institute of Inorganic Chemistry, Slovak Academy of Sciences, Bratislava, Slovakia; September-November, 1995; April-June, 1997; May-June, 1998.
j. Dr. David L. Bish, Senior Scientist, Los Alamos Research Laboratory, New Mexico, November 14, 1995.
k. Dr. Alain Manceau, Senior Scientist, Josef Fourier University and CNRS, Grenoble, France, June 26 to August 28, 1997.
l. Dr. Vibeke Ernstsen, Geological Survey of Denmark and Greenland, Copenhagen, Denmark, October 19 to November 20, 1999; August, 2002.
m. Dr. Dalma Gypesova, Institute of Inorganic Chemistry, Slovak Academy of Sciences, Bratislava, Slovakia; Spring, 2001.
n. Dr. Bernard A. Goodman, Scottish Crop Research Institute, Dundee, Scotland, September 5-7, 2002.
o. Dr. Rosa Torres-Sanchez, Buenos Aires Polytechnic Institute of La Plata, Argentina, October 20-24, 2001.
p. Dr. José Domingos Fabris, Department of Chemistry, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil, October 7-19, 2002.
q. Dr. Pascal Boivin, Swiss Federal Institute of Technology, Lausanne, August 9 to September 15, 2003; December 1-11, 2004.
r. Dr. Fabienne Favre, Swiss Federal Institute of Technology, Lausanne, August 9 to November 27, 2003; December 1-18, 2004.
s. Dr. Jaime W. V. de Mello, Universidade Federal de Viçosa, Brazil, October, 2003, to October 2004.

7. Hosted the following students from other institutions:
a. Mr. Chris Grant, Department of Geological Sciences, University of Oregon, Fall Semester, 1993.
b. Mr. Gerard Bruno, Laboratory for Surface Petrology, University of Poitiers, France, Spring and Fall Semesters, 1993.
c. Mrs.Vibeke Ernstsen, Geological Survey of Denmark, Summer and Fall Semesters, 1993; Spring Semester, 1994; July, 2002.
d. Dr. Ralph Schuette, Institute for Soil Science, Technical University of Hannover, Germany, for one year beginning February, 1995 (funded by the German National Science Foundation Fellowship).

e. Miss Fabiana R. Ribeiro, Department of Chemistry, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil; October, 2002, to present.
f. Mr. Paulo R. S. Couceiro, Department of Chemistry, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil; October, 2002, to January 4, 2003.
g. Miss Sophie Gavillet, Swiss Federal Institute of Technology, Lausanne, Switzerland, October 16, 2003, to February 17, 2004.
h. Mr. Christian Bogdal, Swiss Federal Institute of Technology, Lausanne, Switzerland, October, 2004, to February, 2005.
i. Mr. Alexandre dos Santos Anastácio, Department of Chemistry, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil; December 22, 2004, to December 21, 2005
j. Miss Amina Aouad, CNRS-BRGM, Orleans, France, 2005-2006.

8. Visited the Following Foreign Institutions:
   a. During July, 1977: Rothamsted Experiment Station, Harpenden, England; Plymouth Polytechnic Institute, Plymouth, England; English China Clays Research Laboratories, St. Austell, England; The Macaulay Institute for Soil Research, Aberdeen, Scotland; The Agricultural University of Wageningen, The Netherlands, and the Soil Survey of The Netherlands; Institute for Soil Science, University of Hannover, Germany; Institute for Soil Science, University of Munich, Germany; Institute for Inorganic Chemistry, University of Munich, Germany; Department of Chemistry of Interfaces, Catholic University, Louvain-la-neuve, Belgium; Department of Surface Chemistry, Catholic University, Leuven, Belgium; Center for the Study of Imperfect Crystals, CNRS, Orleans, France; and the Soils Research Station, National Institute for Agronomic Research (INRA), Versailles, France.
   b. Soils Research Station, INRA, Versailles, France, October 13-30, 1988; August 14-17 and 22-28, 1989; and May 14-17, 1991 (under the auspices of a collaborative research project with Dr. Daniel Tessier of that Institute).
   c. Institute for Inorganic Chemistry, Slovak Academy of Sciences, Bratislava, Czechoslovakia (now Slovakia), August 18-21, 1989; December 20-22, 1993 (presented an invited seminar); July 26-31, 1995; August 16-18, 1995; July 5-11, 1996; March 22-23, 1997; September 8-9, 2001.
   d. Department of Chemistry of Interfaces and the Department of Soil Science at the Catholic University, Louvain-la-neuve, Belgium, May 13, 1991.
   e. University of Orleans and CNRS, Orleans, France, 1984, 1989, 1992; 2002; December 10-11, 2004.
   f. Josef Fourier University and CNRS, Grenoble, France, December 17, 1993 (presented an invited seminar); August 1-3, 1995; September 9-13, 1996; and June 24-30, 1998.
   g. Department of Chemistry, Royal Agricultural and Veterinary University, Copenhagen, Denmark, December 20, 1993. Presented an invited seminar. Visited again in September, 1996; March 23-25, 1997; August 18-20, 1997; October 5-7, 1998; December 12-19, 2002.

h. Laboratory for Surface Petrology, University of Poitiers, France, September 9-12, 1992; as a Visiting Professor, December 6, 1993, to January 5, 1994; and October 6-9, 2000
i. Moscow State University, Department of Geography, August 11-13, 1995.
j. Invited speaker at Soils and the Environment symposium, honoring Professor Dr. Udo Schwertmann on the occasion of his retirement, Institute for Soil Science, Technical University of Munich, Germany, October 24-25, 1995.
k. Invited to visit the Institute for Soil Science, Technical University of Hannover, Germany, October 26-27, 1995.
l. Invited member of the organizing committee and as a plenary lecturer at the Third International Conference on Solid State Chemistry, Bratislava, Slovakia, July 6-12, 1996.
m. Max Planck Insitute for Marine Microbiology, Bremen, Germany, July 12, 1996.
n. Lehrstuhl für Bodenkunde, Technische Universität München, Munich, Germany, July 15, 1996.
t. National University of Singapore, Department of Chemical and Environmental Engineering; September 13-17, 1997. Presented an invited seminar.
u. Institute of Soil Science, Academia Sinica, Nanjing, China, September 19-20, 1997; September 29-30, 1999.
v. China Agricultural University, Beijing, China, September 20-22, 1997; September 21-24, 1999. Presented invited seminars each time.
w. Yonsei University, Seoul, Korea, September, 22, 1997.
x. Scottish Crop Research Institute, Dundee, Scotland; March 26-28, 1997; July 1-4, 1998.
y. Materials Research Laboratory, Sheffield Hallam University, Sheffield, England; June 29, 1998.
z. The Hebrew University of Jerusalem, Rehovot, Israel; June 17-24, 1998; and May 10-15, 2002.
aa. China Academy of Agricultural Sciences, Institute for Soils and Fertilizers, Beijing, China, September 24, 1999. Presented an invited seminar.
bb. Northwest Agricultural University, Xi'an, China, September 25-26, 1999. Presented an invited seminar.
cc. Huazhong Agricultural University, Wuhan, China, September 27-28, 1999. Presented an invited seminar.
dd. International Rice Research Institute, Los Baños, The Philippines, October 7-12, 1999. Presented an invited seminar.
ee. Okayama University, Okayama, Japan, October 12-14, 1999; November 24-25, 2003. Presented invited seminars.
ff. CSIRO, Division of Land and Water, Glen Osmond, SA, Australia, May 25-31, 2000. Presented an invited seminar.
gg. Institute of Materials Science, CSIC, Sevilla, Spain, October, 2000. Presented an invited seminar.

hh. University of Minas Gerais, Belo Horizonte, Brazil, July 31-August 1, 2001 (Department of Chemistry); March 27-April 2, 2002 (Department of Chemistry); and July 31 to September 3, 2005(Departments of Chemistry, Nuclear Engineering, Cultural Arts, and Medicine). Presented invited seminars, held informal discussions, and presented a shortcourse in Iron Redox Processes in Clays (most in Portuguese).

ii. Department of Civil and Environmental Engineering, University of São Paulo, Brazil, April 5, 2002.

jj. ANDRA (the French agency for radioactive waste management), Chatenay-de-Malabry, France; June 16-17, 2002; November 9-10, 2004.

kk. Invited member of the organizing committee and as a plenary lecturer at the Fifth International Conference on Solid State Chemistry, Bratislava, Slovakia, July 7-11, 2002.

ll. Department of Geosciences, University of Aveiro, Portugal, November 16-18, 2004.

mm. Physics Department, University of Orleans and CNRS-BRGM, France, December 11, 2004.

nn. Chemistry Department, University of Buenos Aires, Argentina, August 15-19, 2005.

9. Charter Member of the Editorial Board of **Geologica Carpathaca Clays.**

10. Was invited to be one of two international members of the six-member jury for the Ph.D. thesis of Mr.Gerard Bruno, University of Poitiers, France, December 8, 1993. Professor Stucki was appointed as one of the two "Rapporteurs" on the jury.

11. Invited member of the four-member Ph.D. committee of Vibeke Ernstsen, Royal Veterinary and Agricultural University of Denmark, Copenhagen, Denmark, September 20, 1996.

12. Member (one of 5) of evaluation panel to select the Chaired Professor of Soil Environmental Chemistry at the Royal Veterinary and Agricultural University, Copenhagen, Denmark. Meetings held in Copenhagen on August 18, 1997, and October 7-9, 1998. Hans Christian Brun Hansen was selected.

13. Member of the Conference Organizing Committee of ANDRA, the French agency for radioactive waste management. Assisted in the organization of scientific conferences in December, 2002, and March, 2005.

G. Teaching

1. NRES 414, Advanced Physical Chemistry of Clays and Soils (1 Unit), Spring, Odd Years 1977 to 2000 (course canceled by the ACES Associate Dean of Academic Programs) – Professor Stucki was responsible for developing the curriculum of this graduate-level course (cross-listed with Mining Engineering, and Materials Science and Engineering), and teaching the course in alternate years beginning in Spring, 1977. The method of lecture presentation was primarily by overhead transparency, with problem set assignments and out-of-class tutorials such as the computer-aided tutorial described below. He wrote a 300-page typed text which accompanies the course, and parallels the overhead transparency presentations. Topics covered were: review of chemical thermodynamics, equilibrium, and Gibbs free energy; electrical

double-layer theory; thermodynamics of ion exchange; chemical and physical adsorption; electrokinetic phenomena; electrolyte diffusion; swelling; and methods for determining the thermodynamic properties of water and dissolved solutes in clay-water suspensions. The approach to each of these subjects is to first present the rigorous derivations of the essential equations, usually from first principles, then to discuss the assumptions that are required in order to apply them to clay and soil systems.

2. NRES 351, Environmental Chemistry (3/4 unit or 3 hr), Fall – Covers introductory aspects of the chemistry of atmospheric, aquatic, and soil/sediment systems.
3. NRES 387 (changed to 487 in 2005), Soil Chemistry (3/4 unit or 3 hr), Spring – covers the fundamental principles of soil chemistry, including factors of soil formation, chemical equilibrium and kinetics, acidity, weathering, cation exchange, adsorption, swelling and water potential, clay-organic interactions, and the chemistry of oxyanions and key nutrients.
4. NRES 285, Introduction to Mössbauer Spectroscopy in Environmental Science. (1 credit hour), Fall, 2006, Second Half – Laboratory course designed to introduce the student to this powerful method for studying iron in environmental systems.
5. Apprenticeships in Science -- Professor Stucki has served as the mentor for high school students each summer since 1980 as part of the Department of Defense High School Apprenticeship program. In this program, top high school students are selected to work in his laboratory during summer vacation months. These students typically are at or near the top of their class. Using research results obtained during the apprenticeship, one student won second place in the Illinois Junior Academy of Science competition and, consequently, was invited to attend, with all expenses paid, the national convention held at the U. S. Military Academy at West Point.

H. Administrative Services to the University – many elected and appointed committees, including Campus Faculty Advisory Committee (6 years, 1 year as chair); Department and College Promotion and Tenure Committees; Faculty/Student Senate – chair of Committee on Academic Freedom and Tenure, member of Senate Executive Committee; Graduate Selection and Policy Committees; Information Technology Advisory Board.

I. Administrative Service to the Community
   1. Elected to four terms on the Champaign Community Schools Board of Education: first term, 1981-1983; second term, 1983-1987; third term, 1987-1991; fourth term, 1991-1995. Was elected by his peers on that board to serve one term as Secretary (1981-1983), and three terms as President (1983-1985, 1985-1986, 1991-1993).
   2. Served as Illini District Vice-Chair, Arrowhead Council, Boy Scouts of America. He also served as Scouting Coordinator, Troop Committee Chair, Family Sustaining Membership Enrollment Chair, and Scoutmaster. He completed the Wood Badge Scout Leader Training program.
   3. Served as Bishop (presiding ecclesiastical leader of a congregation of about 500 members) of The Church of Jesus Christ of Latter-day Saints, 1987-1993.
   4. Served as Stake President (presiding ecclesiastical leader over 10 congregations throughout East-Central Illinois) of The Church of Jesus Christ of Latter-day Saints, 1993-2002.

J. Technical Publications

1976

1. Stucki, Joseph W. and Charles B. Roth. 1976. Interpretation of infrared spectra of oxidized and reduced nontronite. **Clays Clay Miner. 24:**293-296.
2. Stucki, Joseph W., Charles B. Roth, and William E. Baitinger. 1976. Analysis of iron-bearing clay minerals by electron spectroscopy for chemical analysis (ESCA). **Clays Clay Miner. 24:**289-292.

1977

3. Stucki, Joseph W. and Charles B. Roth. 1977. Oxidation-reduction mechanism for structural iron in nontronite. **Soil Sci. Soc. Am. J. 41:**808-814.

1979

4. Anderson, Warren L. and Joseph W. Stucki. 1979. Effect of structural Fe^{2+} on visible absorption spectra of nontronite suspensions. pp 75-83 *In* Mortland, Max M. and Victor C. Farmer (Editors). **Proceedings International Clay Conference, Oxford, 1978.** Elsevier, Amsterdam.
5. Stucki, Joseph W. 1979. Soil Chemistry: Characterization of soil and clay minerals by electron spectroscopy for chemical analysis. pp 343-345 *In* Lapedes, D. N. (Editor), **Yearbook of Science and Technology.** McGraw-Hill, New York.

1980

6. Stucki, J. W.; Banwart, W. L. (eds.) 1980. Advanced Chemical Methods for Soil and Clay Mineral Research. D. Reidel Publishing Co: Dordrecht, The Netherlands. 477 p.

1981

7. Norman, Richard J. and Joseph W. Stucki. 1981. The determination of nitrate and nitrite in soil extracts by ultraviolet spectrophotometry. **Soil Sci. Soc. Am. J. 45:**347-353.
8. Stucki, Joseph W. 1981. The quantitative assay of minerals for Fe^{2+} and Fe^{3+} using 1,10-phenanthroline. II. A photochemical method. **Soil Sci. Soc. Am. J. 45:**638-641.
9. Stucki, Joseph W. and Warren L. Anderson. 1981. The quantitative assay of minerals for Fe^{2+} and Fe^{3+} using 1,10-phenanthroline. I. sources of variability. **Soil Sci. Soc. Am. J. 45:**633-637.

1983

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