

VIRENDER K. SHARMA

Professor of Professional Practice, University of Miami, Miami, Florida
Fellow, American Association for the Advancement of Science (AAAS)

Fellow, American Chemical Society (ACS)

Fellow, European Academy of Science (EurASc)

Fellow, Royal Society of Chemistry (RSC)

Department of Chemical, Environmental, and Materials
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EDUCATION:

- 1989 Rosenstiel School of Marine and Atmospheric Sciences, University of Miami, Florida. Ph.D., Marine and Atmospheric Chemistry.
1984 Indian Institute of Technology, New Delhi, India. M. Tech., Modern Methods of Chemical Analysis and Control.
1982 University of Delhi, Delhi, India. M.Sc., Physical Chemistry.
1980 University of Delhi, Delhi, India. B.Sc (Honors), Chemistry.

TEACHING EXPERIENCE:

- 2025-Present **Professor** at Department of Chemical, Environment, and Materials, Miami, Miami, Florida
2014-2024 **Professor** at School of Public Health, Texas A&M University, College Station, Texas.
2015-2024 **Adjunct Professor**, Department of Civil and environmental Engineering, Texas A&M University, College Station, Texas.
2017-2024 **Adjunct Professor**, Water Management & Hydrological Science, College Station, Texas.
2021-2024 **Adjunct Professor**, Department of Food Science and Technology, Texas A&M University, College Station, Texas.
2017-2019 **Visiting Professor**, Western Sydney University, Australia.
2017-2021 **Distinguished Foreign Professor**, Nanjing University, Nanjing China.
2016-2017 **Distinguished Foreign Professor**, Huaqiao University, Xiamen, China.
2013-2019 **Guest Professor**, Dalian University of Technology, Dalian, China.
2014-2019 **Guest Professor**, Harbin Institute of Technology, Harbin, China.
2014-2019 **Guest Professor**, Northeast Electric Power University, Jilin City, China.
2005-2013 **Professor of Chemistry** at Florida Institute of Technology, Melbourne, Florida.
1999-2005 **Associate Professor of Chemistry** at Florida Institute of Technology, Melbourne, Florida.
1997-1999 **Associate Professor of Chemistry** at Texas A&M University-Corpus Christi, Texas.
1992-1997 **Assistant Professor of Chemistry** at Texas A&M University- Corpus Christi, Texas.
Summer, 1992 **Visiting Faculty:** "Fundamentals of Chemistry" at Drury College, Springfield, Missouri.
Summer, 1991 **Visiting Faculty:** "Fate of pollutants in the Aquatic Environment" at Institute De Ciencias Del Mar Y Limnologia, UNAM, Mexico City, Mexico.

- 1989-1990 **Lecturer I:** *Undergraduate courses, CHE 101 (General Chemistry) and CHE 123 (Analytical Chemistry)* at Millard Fillmore College, affiliated with S.U.N.Y. at Buffalo, Buffalo, New York.
- 1986-1989 **Teaching Assistant:** *Graduate and Undergraduate Chemical Oceanographic laboratories (MAC 504 and MSC 216)* at University of Miami, Florida.

TEACHING COURSES:

- Undergraduate Analytical Chemistry; Instrumental Analysis; Environmental Chemistry; Chemical Oceanography; General Chemistry II; Environment & Public Health
- Graduate Green Chemistry; Advanced Analytical Chemistry; Special Topics in Analytical Chemistry; Advanced Environmental Chemistry; Aquatic Chemistry; Environmental Aquatic Kinetics; Environmental Instrumental Analysis; Chemistry of Natural Waters; Reactive Species in Treatment of Water and Wastewater; Water and Environmental and Occupational Health; Environmental Sustainability and Public Health

RESEARCH EXPERIENCE:

- 2025-Present **Humboldt Research Award Vistor** at Leibniz-Institut für Troposphärenforschung e.V. (TROPOS), Leipzig, Germany
- Summer, 2019 **Invited Professor**, University of Paris-Est, Paris, France.
- 2013-2017 **Visiting Scientist**, Regional Center of Advanced Technology and Materials, Palacky University, Olomouc, Czech Republic
- 2017 **Visiting Scientist**, under Chinese Academy of Sciences President's International Fellowship Initiative (PIFI)
- Summer, 2013 **Invited Researcher/Professor**, University of Paris-Est, Paris, France.
- 2006 **Visiting Research Scholar** at Chemistry Department, Stanford University, Palo Alto, California. Advisor: E. I. Solomon
- 1990-1992 **Research Associate** at Chemistry Department, Brookhaven National Laboratory, Upton, Long Island, New York. Advisor: B.H.J. Bielski
- 1989-1990 **Research Associate** at Center of Biosurfaces, State University of New York at Buffalo, Buffalo, New York. Advisor: G.H. Nancollas
- 1985-1989 **Graduate Research Assistant** while pursuing Ph.D. degree in Marine and Atmospheric Chemistry at RSMAS, University of Miami, Florida. Advisor: F.J. Millero Dissertation Research: The Oxidation of Copper(I) in Natural Waters.

ADMINISTRATIVE:

- 2016-2024 **Director**, Program of the Environment and Sustainability, Department of Environmental and Occupational Health, School of Public Health, Texas A&M University, College Station, Texas.
- 2015-2016 **Director**, Water Sustainability and Public Health Program, Department of Environmental and Occupational Health, School of Public Health, Texas A&M University, College Station, Texas.
- 2014-2015 **Interim Head**, Department of Environmental and Occupational Health, School of Public Health, Texas A&M University, College Station, Texas.

2010-2013 **Director**, Center of Ferrate Excellence, Florida Institute of Technology,
Melbourne, Florida.
Summer, 1992 **Director of Research for undergraduates** at Chemistry Department, Drury
College, Springfield, Missouri.

FELLOW:

American Association for the Advancement of Science (AAAS) (2022-)
American Chemical Society (ACS) (2021-)
European Academy of Science (EurASc) (2023-)
Royal Society of Chemistry (RSC) (2018-)
International Association of Advanced Materials (IAAM) (2020-)
The Center for Health Systems & Design (CHSD-TAMU) (2020-2023)
Ewha Womans University Global Fellow (EGF), Seoul, South Korea (2024-2026)
Indian Academy of Environmental Sciences, Haridwar (2025-)

AWARDS:

Humboldt Research Award, The Alexander von Humboldt Foundation, Germany (2025)

The American Chemical Society (ACS) Southwest Regional Award (2024).

The Prince Sultan Bin Abdulaziz International Prize For Water (PSIPW) for its Alternative Water Resources Category (2024).

2023 Environmental Science & Technology Excellence in Review Award – American Chemical Society Publications (2024).

2023 Outstanding Reviewer for Environmental Science: Water Research & Technology – Royal Society of Chemistry (2024).

2022 ACS ES&T Water Excellence in Review Award – American Chemical Society Publications (2023).

2022 ACS ES&T Engineering Excellence in Review Award – American Chemical Society Publications (2023).

2024- ECL Distinguished Editor – Environmental Chemistry Letters (The European Association of Chemistry and Environment, ACE), Springer Nature (2023).

2020 ES&T Super Reviewer Award – American Chemical Society Journal, Environmental Science & Technology (2021).

Steven K. Dentel AEESP Award for Global Outreach - Association of Environmental Engineering and Science Professors (2020).

Bush Excellence Award for International Research - George H W Bush Presidential Library Foundation (2019).

Sigma Xi Outstanding Distinguished Scientist Award – Texas A&M University Chapter of Sigma Xi (2019).

Invited Professor – University of Paris-Est, Paris, France (Summer, 2019, 2013).

President Initiative International Fellowship – Chinese Academy of Science (2020, 2019, and 2017).

Excellence in Review Award – *Environmental Science & Technology*, 2012.

Paper Review Award – *Journal of Sulfur Chemistry*, 2010.

Faculty Excellence in Research Award – Florida Institute of Technology (2008).

Faculty of the Year Award – Awarded by Student Affiliation of the American Chemical Society, (2008).

Outstanding Chemist Award – Orlando Section, American Chemical Society (2006).

Indian Institute of Technology Fellowship - Obtained during Master of Technology degree (1982-1984).

National Merit Scholarship - Obtained during High School and University Education given by the Government of India ((1974-1982).

HONORS:

Highly Cited Researcher (Top 1%) – Clarivate Analytics, Web of Science (2024-2022, 2020).

Panel Member – Water & Climate Sustainability Symposium, Umeå Campus, Sweden (April 27-29, 2024).

Panel Member – Workshop on Biofouling Membrane, International Water Association, St. Louis, Missouri (July 23, 2023).

World Expert in Water Pollutants - Expertscape's PubMed-Based Algorithms Place in the Top 0.1% of Scholars Writing about Water Pollutants over the Past 10 Years (2021).

Most-Cited World Scientist - Ranked Top 0.15% Globally among ~ 8 million Researchers Across 22 Fields and #23 Globally among the Scientist under "*Environmental Science*" sub-field, Mendley (2020).

Program Chair – Environmental Chemistry Division, Fall National American Chemical Society Meeting (2021 - Present).

Assistant Program Chair – Environmental Chemistry Division, Fall National American Chemical

Society Meeting (2020 - 2021).

Nomination – Fellow, American Chemical Society, 2019, 2020.

Certificate of Excellence in Reviewing (Chemosphere) – 2017.

Visiting Scientist – under Chinese Academy of Sciences President's International Fellowship Initiative (PIFI) (2017).

Member at Large - Division of Environmental Chemistry, American Chemical Society (2016-2020).

Certificate of Merit - Awarded by American Chemical Society (Division of Environmental Chemistry), for co-authorship of the Oral Paper titled "*Degradation of Naphthylazo Anionic Dye by Fenton and Fenton-like Processes: A Case Study with Fast Sulphon Black-F*" at 251st National Meeting in San Diego, California, 2016.

Certificate of Merit - Awarded by American Chemical Society (Division of Environmental Chemistry), for co-authorship of the Oral Paper titled "*Mechanism of the Formation of Silver Nanoparticles in the Aquatic Environment*" at 247th National Meeting in Dallas, Texas, 2014.

Visiting Scientist – Regional Center of Advanced Technology and Materials, Palacky University, Olomouc, Czech Republic (2013-2017).

Nomination - Florida Tech Faculty Excellence Research Award (2006).

Visiting Research Scholar – Chemistry Department, Stanford University, Palo Alto, California (2006).

Secretary - American Chemical Society (Geochemistry Division) (2000-2002).

Symposium Award - The best ACS (Geochemistry Division) symposium in honor of Frank J. Millero (1999).

Certificate of Merit - Awarded by American Chemical Society (Division of Environmental Chemistry), for presentation entitled "*Oxidation of Thiourea by Ferrate(VI)*" at Orlando, Florida (1996).

Member - Risk management plan third party review for port industries of Corpus Christi (1998).

Diploma - Awarded by Universidad Nacional Autonoma De Mexico, Mexico for presentation entitled "*Ferrate(VI) and the Wastewater Treatment*" 1996.

Member - Advisory Committee, EPA Pollution Prevention Project (1996).

Diploma - Awarded by Universidad Nacional Autonoma De Mexico, Mexico for presentation entitled "Speciation of Trace Metals in Natural waters" (1992).

errate(VI) Oxidation of Contaminants in Wastewater Effluents (September, 1995 - August, 1998). \$67,900.

Rachel Foundation, Inventory of Metals in Soil at Galvan Ranch (September, 1996 - December, 1998). \$33,900.

TAMU-CC Faculty Research, Role of Environmental Parameters in Texas "brown tide" (September, 1997 - August, 1998). \$5,800.

TAMU-Energy Research Program, Removal of Cyanides in Industrial Effluents by Advanced Oxidation Process (June, 1996 - May, 1997). \$17,860.

Gulf Coast Foundation, High Performance Liquid Chromatography (HPLC) in Undergraduates (September, 1995 - August, 1997). \$15,000.

National Science Foundation, Gas Chromatography/Mass Spectrometry (GC/MS) in Curriculum Improvement of Undergraduates (June 1997 - May 99). \$40,906.

TAMU Faculty Enhancement Grant, Ferrate(VI) oxidation of Hydrogen Sulfide and Cyanide (September, 1993 - August, 1995). \$25,000.

ASSOCIATE EDITORS – JOURNALS

Environmental Chemistry Letters (2017-Present)

Journal of Advanced Oxidation Technologies (2017-2023)

EDITORIAL BOARD MEMBER - JOURNALS

Sustainable Chemistry One World, 2023-Present

Journal of Water Process Engineering, 2023-Present

Eco-Environment & Health – 2023- Present

Environmental Functional Materials, 2022-Present

Chemical Engineering Journal Advances, 2020-Present

Journal of Hazardous Materials, 2019-Present

Chemosphere, 2018-Present

Water-Energy Nexus, 2017-Present

Environmental Nanotechnology, Monitoring and Management (ENMM), 2014-Present

Journal of Environmental Science and Health Part A: Toxic/Hazardous Substances and Environmental Engineering, 2008-Present

SPECIAL ISSUES GUEST EDITORS - JOURNALS

Guest Co-Editor – Focus Issue on “*Materials Science and Environmental Applicability*” in the *Environmental Science & Technology* (2025).

Guest Co-Editor – Focus Issue on “*Mössbauer Spectroscopy from Artificial Nano Architectures to Environmental Applications*” in the *Journal of Materials Research*, Volume 38, February (2023).

Guest Co-Editor – A Special Journal Issue “*Water-Energy-Food-Health Solutions & Innovations for Low-Carbon, Climate-Resilient Drylands*” in the *Frontier of Environmental Science*, 11 (2023).

Guest Co-Editor – A special Journal issue on “Chemical Reactions at Solid-Water Interfaces of Natural and Built Environment” in the *Science of the Total Environment*, 2020

Guest Co-Editor – A special Journal issue on “*Environmental Antibiotics and Antibiotic Resistance: From Problems to Solutions*” in the *Frontier of Environmental Science and Engineering*, 13 (2019).

Guest Co-Editor – A special Journal issue on “*SEGH 2017- Environmental Health and Pollution Control*” in the *Ecotoxicity and Environmental Safety*, 2018

Guest Co-Editor – A special journal issue on “*Metals – Advanced Oxidation Processes in Honor of Professor Jun MA*” in the *Journal of Hazardous Materials*, 2018

Guest Editor – A special journal issue in the *ACS Sustainable Chemistry and Engineering Honoring Rajender S. Varma*, 2016.

Guest Co-Editor – A special journal issue on “*Emerging Electrochemical Water Remediation Technologies in Honor of Professors Eric Brillas and Mehmet Oturan*” in the *Journal of Hazardous Materials*, 2016.

Guest Co-Editor – A special journal issue on “*Environmental Nanotechnology and Sustainability in Water Treatment in Honor of Professor Chin-Pao Huang*” in the *Separation and Purification Technology*, 2015.

Guest Co-Editor – A special journal issue “Photocatalytic Processes for Environmental Remediation in Honor of Professor Jincai Zhao” in the *Catalysis Today*, 224, 2013.

Guest Editor – A special journal issue “Advanced Oxidation Processes – Fundamentals and Applications Professor Xiang-Zhong Li” in the *Separation and Purification Technology*, 91(3), 2012.

Guest Editor – A Special journal issue “Speciation and Kinetics in Natural Waters in Honor of

Professor Frank J. Millero" in the "*Aquatic Geochemistry*", 16(3), 2010.

Guest Editor – A special journal issue "Thermodynamics and Kinetics in Natural Waters in Honor of Frank J. Millero", *Marine Chemistry*, 70(1-3), 2000.

PROFESSIONAL SOCIETY MEMBERSHIPS:

American Chemical Society
Royal Society of Chemistry
American Association for the Advancement of Science
Association of Environmental Engineers and Science Professors
American Academy of Environmental Engineers and Scientists
Society of Environmental Toxicology and Chemistry
American Geophysical Union
International Water Association
Sigma Xi
Material Research Society

PUBLICATIONS: (Total Citations: >46,000; H-Index 106; Source: Google Scholar)
Patents (National/International): 5 (Issued); 3 (Under Examination)
Journals (Peer-Reviewed): 468
Book (Author): 1
Books (Edited): 7
Book Chapters: 60
Proceedings/Preprints: 37
Abstracts 221
Presentations (Invited/Keynote) 227

PATENTS:

Apparatus and Method for Producing Liquid Ferrate - US Patent No. 8,961,921 B2;
WO Application No. 2012044358; India Patent No. 313290; South Korea Patent No.
10-1879598

Method and Apparatus for Desulfurization of Heavy Oil using Ferrate(VI) - US Patent No.
9,200,212 B2.

Ferrate Composition for Surface Disinfection - US Patent No. 11,523,613

Compositions and Method of Preparing and Using Activated Ferrate Solution to Accelerate and Enhance Oxidation Capacity for Disinfecting and Purifying Water Activated Ferrate Compositions– US and Europe Filled- US201862644274P

Activated Ferrate Solution as Disinfectant, Pesticide, Oxidant, Coagulant and to Prolong Shelf Life of Produce, Meats, Poultry, Seafood and other Edible items. 2021/63/224550

Visible Light Enabled Catalyst Free Oxidation of Environmental Pollutants and Disinfection of Pathogenic Microorganisms by Peroxydisulfate-US Patent Office - Provisional Filled

Ferrate Based Compositions and Method Thereof for PFAS Removal or Degradation - Provisional Filled (Serial number 63/541,974)

Biochar supported atomically dispersed metal catalysts for efficient removal of per- and polyfluoroalkyl substances (PFAS)- Disclosure

PEER-REVIEWED JOURNAL PUBLICATIONS:

2025

1. "Visible Light Modulating Abatement of Pharmaceuticals in Water by Zinc Single-Atom Catalyst on Biochar Support"
J. Yuan, Y. Han, K. Sathiyar, A.H. Mokarizadeh, M. Tsige, J. Jiang, **V.K. Sharma**, and X. Ma,
In Preparation (2024).
2. "Why Should We Pay More Attention to Bicarbonate in Environmental Processes"
V.K. Sharma, H. Hermann, and D. Myerstein,
Environ. Sci. Technol., In Preparation (2024).
3. "Elucidating Multiple Reaction Pathways for the Degradation of Antibiotics in Water by Self-Active Single-Atom Zinc Catalyst on Biochar"
J. Yuan, K. Sathiyar; **V.K. Sharma**, A.H. Mokarizadeh, M. Tsige, J. Jiang, and X. Ma,
In Preparation (2024).
4. "Novel Approaches for Enhancing the Catalytic Activity of Single Atom Catalysts in Environmental Applications"
Y. Han, **V.K. Sharma**, and X. Ma,
Chem. Eng. J., Submitted (2024).
5. "Unexpected Improvement of Photocatalytic Degradation and Defluorination of GenX in Lake Water: Nature Enhanced PFAS Treatment"
Y. Wen, G.S. Day, H. Lin, R.O.K. Ozdemir, E.E. Claveau, N. Loganathan, A.K. Wilson,
V.K. Sharma, X. Ma, and H-Cai Zhou
Nat. Commun., Submitted (2024).
6. "Treatment Strategies of Poly- and Perfluoroalkyl Substances by Metal-Organic Frameworks: Adsorption and Photocatalytic processes"
V.K. Sharma, X. Ma, D. Shetty, P. Biswas, and M.N. Nadagouda,
ACS EST Water, Submitted (2025).
7. "Chloride-Activated Peracetic Acid for Sulfamethoxazole Removal: New Insights into

- Utilization of Seawater Cl⁻ as Activator”
Y. Wang, C. Li, X. Wei, Sumita, **V.K. Sharma**, H. Kim, Y. Zhang,
J. Hazard. Mater., Submitted (2025).
8. “Effects of Nitrogen Fertilizer Types on the Uptake and Translocation of PFAS and Metabolomic Activities of Hydroponically Cultivated Lettuce (*Lactuca Sativa*)
O. Adu, S.S. Duza, **V.K. Sharma**, and X. Ma,
J. Agr. Food. Chem., Submitted (2025).
 9. “Flower-Like Bismuth(III) Hydroxide/Nitrogen-Doped Carbon Nanotube Catalyst-Ferrate^{VI} System: Selective Generation of Bismuth^V and Rapid Oxidation of Organic Pollutants”
M. Liu, X. Li; Y. Qi, N. Wu, **V.K. Sharma**, and R.J. Qu,
Chem. Eng. J., Submitted (2025).
 10. “Global Water Scarcity Solution through Atmospheric Water Harvesting by Innovation in Porous Materials
D. Shetty, E. Lichtfouse, Y. Guo, X. Ma, and **V.K. Sharma**,
Environ. Chem. Lett., Submitted (2025)
 11. “Covalent-organic Frameworks for Treatment of Poly- and perfluoroalkyl Substances: A Review
V.K. Sharma, X. Ma, D. Shetty, P. Biswas, and M.N. Nadagouda,
Chem, Eng. J., Under Revision (2025).
 12. “Isotope Techniques in Chemical Wastewater Treatment: Opportunities and Uncertainties”
H. Zhou, X. Duan, B. Huang, S. Zhong, C. Cheng, **V.K. Sharma**, S. Wang, and B. Lai,
Angew. Chem. Int. Ed., In Press, doi.org/10.1002/anie.202422892 (2025).
 13. “Chloride Enhanced Rapid Degradation of Micropollutants in Natural Water by Iron/Biochar/Peroxymonosulfate: Role of Iron(IV) and Radical Species”
M. Zhang, W. Gong, C. Liu, X. Meng, X. Wang, G. Peng, and **V. K. Sharma**,
J. Hazard. Mater., In Press (2025).
 14. “Emerging Nanomaterials for Per- and Polyfluorinated Substances Detection – A Review”
A.M. Parambil, E. Priyadarshini, S. Paul, A. Bakandritsos, **V.K. Sharma**, and R. Zbořil,
J. Mater. Chem. A., 13, 8246-8281 (2025).
 15. “Neutral pH, Multioxidants Fenton Oxidation of Dimethyl Sulfoxide and Acetamidophenol as Water Pollutant Models”
A.K. Vijay, G.S. Rolly, V. Marks, **V.K. Sharma**, and D. Meyerstein
Environ. Chem. Lett., In Press (2025).
 16. “Photocatalytic Degradation of Perfluorooctanoic Acid (PFOA) by Metal Organic Framework
MIL-177-HT: New Insights into the Role of Specific Surface Area, Charge Separation and Dimensionality”
Y. Wen, A. Kirchon, G. Day, M. Smith, A. Boehme, R.O. Ozdemir, **V.K. Sharma**, X. Ma,

and H-C. Zhou,
Sep. Pur. Technol., 354(3), Article 128877 (2025).

2024

17. "Editorial – Materials Science and Environmental Applicability"
P. Wang, J. Xu, W. Wang, T. Karanfil, M.S. Wong, **V. K. Sharma**, and r. Kumar,
Environ. Sci. Technol., 58, 19907–19908 (2024).
18. "Rapid and Highly Selective Fe(IV) Generation by Fe(II)-Peroxyacid Advanced Oxidation Processes: Experimental and Computational Evaluation"
J. Wang, J. Kim, C. Krall, **V.K. Sharma**, D.C. Ashley, and C-Hua Huang
Environ. Sci. Technol., 58 (38), 17157-17167 (2024).
19. "Unveiling the Environmental Significance of Acetylperoxyl Radical: Reactivity Quantification and Kinetic Modeling"
J. Wang, T. Schaefer, A. Lisouskaya, D.S. Firak, X. Xin, H. Hermann, **V.K. Sharma**, and C-H. Huang,
PNAS Nexus, 3(8), 10.1093/pnasnexus/pgae330 (2024).
20. "Revisiting the Electron Transfer Mechanisms in Ru(III)-Mediated Advanced Oxidation Processes with Peroxyacids and Ferrate(VI)"
K. Sathiyar, J. Wang, L. Williams, C-H, Huang, and **V.K. Sharma**,
Environ. Sci. Technol., 58(26), 11822–11832 (2024).
21. "Bromate in Drinking Water: Occurrence and Removal by UV/Sulfite Advanced Reduction Processes"
A.K. Phan, J. Lohwacharin, K. Oguma, and **V.K. Sharma**,
Chem. Eng. J., 490, Article 151759 (2024).
22. "Simultaneous Generation of Fe(IV), Fe(V) and Free Radicals by Ferrate Activation: A review"
F. Dong, C. Fu, M. Feng, D. Wang, S. Song, C. Li, Q. Lin, and **V.K. Sharma**,
Chem. Eng. J., 481 Article 148669 (2024).
23. "Effects of Ozone Dose on Aliphatic, Aromatic and Cyclic Brominated DBPs in Subsequent Chlor(am)ination: A Whole Picture Study"
J. Han, H. Zhai, X. Zhang, J. Liu, and **V.K. Sharma**,
Water Res., 250, Article 121039 (2024).
24. "Enhanced Removal of Phenolic Compounds by Ferrate(VI): Unveiling the Bi(III)-Bi(V) Valence Cycle with *in Situ* Formed Bismuth Hydroxide as Catalyst"
X. Li, M. Liu, N. Wu, **V.K. Sharma**, and R. Qu,
Water Res., 248, Article 120827 (2024).
25. "A Machine Learning Approach for Predicting Plant Uptake and Translocation of Per- and Polyfluoroalkyl Substances (PFAS) from Hydroponics"

- O. Adu, M. Bryant, X. Ma, and **V.K. Sharma**,
ACS EST Engg., 4, 1894-1900 (2024).
26. "Mutual Effects and Uptake of Organic Contaminants and Nanoplastics by Lettuce in Co-exposure"
M.T. Bryant, J. Ren, **V.K. Sharma**, and X. Ma
ACS Agr. Sci. Technol., 4(4), 463–470 (2024).
 27. "Ruthenium(IV)-Iron(VI) Catalysts: Efficient Water Oxidation under Mild Alkaline Aqueous Environment"
K. Sathiyar and **V.K. Sharma**,
Environ. Chem. Lett., 22, 975–979 (2024).
 28. "Full-Scale Integrated Skid-Mounted Plug Flow Photocatalytic Reactor: Treatment of Hospital Wastewater"
X. Ma, Y. Yang, C. Zhang, L. Zhao, D. Chen, **V.K. Sharma**, L. Jiang, Y. Chen, J. He, and J. Wang,
J. Environ. Chem. Eng., 12(1), Article 111596 (2024).
 29. "Recent Advances of Polymeric Nanoplatforams for Cancer Treatment: Smart Delivery Systems (SDS), Nanotheranostics and Multidrug Resistance (MDR) Inhibition"
U. Gupta, D. Maity, and **V.K. Sharma**,
Biomed. Mater. 19(1), Article 012003 (2024).
 30. "Recent Advances and Analytical Perspectives in MXene-based Electrochemical Miniaturized Sensors for Environmental Analysis and Monitoring"
U. Pengsomjit, S.H. Olawale, F. Alabdo, K. Choowongkamon, W. Alahmad. **V.K. Sharma**,
I.A. Darwish, and C. Kraiya,
Microchem. J., 206, Article 111433 (2024).
 31. "Enhanced Detection of Trace Sulfur Levels in Gasoline by Bismuth Electrode using Square Wave Voltammetry"
S. Somsong, **V.K. Sharma**, I.A. Darwish, W. Alahmad, and C. Kraiya,
J. Sulfur Chem., 45(4), 534-551 (2024).
 32. "Recent Advances in MXene-Based Electrochemical Sensors for Environmental Monitoring: A Critical Review"
U. Pengsomjit, S.H. Olawale, F. Alabdo, K. Choowongkamon, W. Alahmad, **V.K. Sharma**,
and C. Kraiya,
Microchem. J. 206, Article 111433 (2024).
 33. "Graphene-Based Gel Electromembrane Extraction Coupled with Modified Screen-Printed Carbon Electrode for Detecting Streptomycin in Honey Samples: Greener strategy for

Food Analysis”

U. Pengsomjit, W. Alahmad, P. Varanusupakul, S.A. Ozkan, **V.K. Sharma**, and C. Kraiya,
Talanta, 268(1), Article 125334 (2024).

2023

34. “Single Atom Catalysts-Mediated Generation of Reactive Species in Water Treatment”
V.K. Sharma, X. Ma, and R. Zboril,
Chem. Soc. Rev., 52, 7673 - 7686 (2023).
35. “Overlooked Formation of Carbonate Radical Anions in the Oxidation of Iron(II) by Oxygen in the Presence of Bicarbonate”
A. Vijay, **V.K. Sharma**, and D. Meyerstein,
Angew. Chemie. Int. Ed., In Press, [10.1002/anie.202309472](https://doi.org/10.1002/anie.202309472) (2023).
36. “Picolinic Acid-Mediated Catalysis of Mn(II) for Peracetic Acid Oxidation Processes: Formation of High Valent Mn Species”
J. Kim, J. Wang, D.C. Ashley, **V.K. Sharma**, and C-H. Huang,
Environ. Sci. Technol., 57(47), 18929–18939 (2023).
37. “Enhanced Oxidation of Antibiotics by Ferrate Mediated with Natural Organic Matter: Role of Phenolic Moieties”
B. Guo, J. Wang, X. Ma, Xingmao; E. Lichtfouse, C-H, Huang, and **V.K. Sharma**,
Environ. Sci. Technol., 57(47), 19033–19042 (2023).
38. “Reaction of $\text{Fe}^{\text{II}}_{\text{aq}}$ with Peroxymonosulfate and Peroxydisulfate in Presence of Bicarbonate: Formation of $\text{Fe}^{\text{IV}}_{\text{aq}}$ and Carbonate Radical Anions”
A.K. Vijay, V. Marks, A. Mizrahi, Y. Wen, X. Ma, **V.K. Sharma**, and D. Meyerstein,
Environ. Sci. Technol., 57(16), 6743–6753 (2023).
39. “Comparative Study on the Oxidation Mechanisms of Substituted Phenolic Pollutants by Ferrate(VI) through Experiments and Density Functional Theory Calculations”
N. Wu, M. Liu, B. Tiana, Z. Wang, **V.K. Sharma**, and R. Qu,
Environ. Sci. Technol., 57(29), 10629-10639 (2023).
40. “Oxidation of Pharmaceuticals by Ferrate(VI)-Amino Acids System: Enhancement by Proline”
V.K. Sharma, J. Wang, M. Feng, and C-H. Huang,
J. Phys. Chem., 127(10), 2314–2321 (2023).
41. “Enhanced Pollutants Removal by Phenolic Moiety-mediated Fenton-like Reaction: Formation of $\text{Fe}(\text{III})$ Hydroperoxide Complex and Two-step Self-catalytic Mechanism”
C. Chen, Y. Wang, D. Xia, J. Hua, W Qu, Y. Huang, C. He, **V.K. Sharma**, D. Shu,
Appl. Catal. B: Chem., 321, Article 122062 (2023).

42. "Ferrate(VI) Mediated Degradation of the Potent Cyanotoxin, Cylindrospermopsin: Kinetics, Products, and Toxicity"
C. Zhao, L.E. Arroyo-Mora, A.P. DeCaprio, D.D. Dionysiou, K.E. O'Shea, and **V.K. Sharma**,
Water Res., 223, Article 119773 (2023).
43. "Efficient Micropollutants Degradation by Ferrate(VI)-Ti/Zn LDH Composite Under Visible Light: Activation of Ferrate(VI) and Self-Formation of Fe(III)-LDH Heterojunction"
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40. “Degradation of Glyphosate by Ferrate, Chlorine and Monochloramine: Effects of Hardness, Bromide, and Natural Organic Matter”
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48. "Role of Ferrate Technology in the Food, Energy, and Water Nexus"
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Abstract, 232nd ACS National Meeting, San Francisco, California (2006).
146. "New view on the thermal behavior of K₂FeO₄ in Static Air"
L. Machala, R. Zboril, V.K. Sharma, J. Filip, and O. Schneeweiss,
Abstract, 232nd ACS National Meeting, San Francisco, California (2006).
147. "Ferrate(VI) Oxidation of Recalcitrant Organic Compounds"
V.K. Sharma, N. Noorhasan-Smith, S.K. Mishra, and N. Nesnas,
Abstract, 232nd ACS National Meeting, San Francisco, California (2006).
148. "Evaluation of ferrate(VI) as an alternative conditioner of Wastewater Biosolids"
H. Kim, V.K. Sharma, L.L. McConnell, A. Torents, P. Milliner, C.P. Rice, and M. Ramirez,
Abstract, 232nd ACS National Meeting, San Francisco, California (2006).
149. "Ferrate(VI) oxidation of 2-Chloroethyl Ethyl Sulfide"
B.M. O'Brien and V.K. Sharma,
Abstract, 232nd ACS National Meeting, San Francisco, California (2006).
150. "Heterogeneous Photocatalytic Reduction of Fe(VI) in UV-irradiated Titania Suspensions: Effect of Ammonia and Formic Acid"
B.V. Chenay and V.K. Sharma,
Abstract, 232nd ACS National Meeting, San Francisco, California (2006).
151. "Degradation of Cationic Surfactant by Ferrate(VI)"
Y.Y. Eng, V.K. Sharma and A.K. ray,
Abstract, 232nd ACS National Meeting, San Francisco, California (2006).
152. "Ferrate(VI) and Ferrate(V) Oxidation of Cyanide, Thiocyanate, and Copper(I) Cyanide"
V.K. Sharma, R. Yngard, and D. Cabelli,
Abstract, PACIFICHEM 2005, Honolulu, Hawaii (2005).
153. "Mossbauer Investigation of Iron(III)EDTA-H₂O₂ and Iron(III)-Indole-3-Alkanoic Acids Systems in frozen aqueous solutions"
A. Vertes, P.A. Szilagyi, K. Kovacs, Z. Homonnay, E. Kuzmann, A.A. Kamnev, and V.K. Sharma,
Abstract, PACIFICHEM 2005, Honolulu, Hawaii (2005).
154. "The convergence of New Technologies to Improve Water Quality"
V.K. Sharma,

Abstract, *Converging Technologies-Promises and Challenges-Forum on Sustainable Technological Development in a Globalising World, 3rd workshop of the Forum*, BME, Budapest (2005).

155. "Iron(VI) [Ferrate]: Environmentally-Friendly Oxidant for Removal of Estrogens and Pharmaceuticals in Water and Wastewater"
V.K. Sharma,
Abstract, *International Symposium of Wastewater Reclamation and Reuse for Sustainability (WRRS) 2005*, Jeju, Korea (2005)
156. "A Review of Disinfection Performance of Fe(VI) in Water and Wastewater"
V.K. Sharma,
Abstract, *International Symposium of Wastewater Reclamation and Reuse for Sustainability (WRRS) 2005*, Jeju, Korea (2005)
157. "Environmentally Friendly Coagulants of Contaminants by Iron(VI)"
V.K. Sharma,
Abstract, *1st IWA-SPIRE Conference*, Singapore (2005).
158. "Innovative Ferrate(VI) Technology for Dewatering, Stabilization, Disinfection, and Treatment of Hazardous Substances"
V.K. Sharma,
Abstract, *IWA Conference on Sustainable Management of Residues Emanating from Water and Wastewater Treatment*, Johannesburg, South Africa (2005).
159. "Combined Chemical and Biological in-situ Treatment of Mature Landfill Leachate"
E. Batareseh, D. Reinhart, V.K. Sharma, and T. Townsend,
Abstract, *10th Annual SWANA Landfill Symposium*, Boulder, Colorado (2005).
160. "Application of Ferrates in Biosolids and Manure Management with respect to Disinfection and Stabilization"
R.S. Reimers, V.K. Sharma, S.D. Pilai, and D. Reinhart, G.R. Boyd, and K.B. Fitzmorris,
Abstract, *WEF Joint Residuals and Biosolids Management Conference – Advancing the State of Technology*, Nashville, Tennessee (2005).
161. "Environmental-Friendly Solution to Chemical Pollution in Hungary"
V.K. Sharma,
Abstract, *Sustainability's New Age, Preservation and Planning (SNAP) – An International Sustainability Forum*, Melbourne, Florida (2005).
162. "Iron Complexes in Aqueous Solution – Mössbauer Characterization"
A. Vertez, P.A. Szilagyi, K. Kovacs, Z. Homonnay, E. Kuzmann, A.A. Kamnev, and V.K. Sharma,
Abstract, *Sustainability's New Age, Preservation and Planning (SNAP) – An International Sustainability Forum*, Melbourne, Florida (2005).
163. "Iron(VI): Green Chemistry"
V.K. Sharma,

- Abstract**, *Sustainability's New Age, Preservation and Planning (SNAP) – An International Sustainability Forum*, Melbourne, Florida (2005).
164. "Solid Iron(VI): Thermal and Spectroscopic Characterization"
J. Madarasz, V.K. Sharma, and G. Pokol,
Abstract, *Sustainability's New Age, Preservation and Planning (SNAP) – An International Sustainability Forum*, Melbourne, Florida (2005).
165. "Effect of Ferrate on Sludge Dewaterability"
H. Kim, S. Hong, Y. Kim, J. Li, A. Torrents, L. Mcconnell, V.K. Sharma, and M. Ramirez,
Abstract, *Sustainability's New Age, Preservation and Planning (SNAP) – An International Sustainability Forum*, Melbourne, Florida (2005).
166. "Oxidation of Aminocarboxylates by Ferrate(VI)"
V.K. Sharma and N. Noorhasan,
Abstract, *228th ACS National Meeting*, Philadelphia, Pennsylvania (2004).
167. "Dissociation Constants of Cysteine in Seawater Media"
V.K. Sharma, A. Moulin, F.J. Millero, and C. De Stefano,
Abstract, *Mediterranean Conference on Chemistry of Aquatic Systems*, Reggio Calabria, Italy (2004).
168. "Mossbauer study of the reaction of Fe^{III}EDTA and hydrogen peroxide"
V.K. Sharma, P.A. Szilagyi, Z. Homonnay, E. Vertes, and A. Vertes,
Abstract, *Eotvis Workshops and Conferences in Sciences 2004*, Budapest, Hungary (2004).
169. "Ferrate the environmentally friendly emerging treatment chemical"
D. Reinhart, L. Daly, A. Rios, and V.K. Sharma,
Abstract, *Florida Remediation Conference 2004*, Orlando, Florida (2004).
170. "Ferrate(VI) Oxidation of Aminocarboxylates"
V.K. Sharma and N. Noorhasan,
Abstract, *2nd IWA Leading-Edge Conference on Water and Wastewater Treatment Technologies*, Prague, Czech Republic (2004).
171. "Coagulation of Industrial and Radionuclides Effluents Utilizing Environmentally Friendly Iron(VI) Ion"
V.K. Sharma,
Abstract, *4th International Conference for Conveying and Handling of Particulate Solids*, Budapest, Hungary (2003).
172. "Innovative Sludge Practices Using Ferrate [Iron(VI)]"
V.K. Sharma and H. Kim,
Abstract, *Environmental Technology: Advancement on Water and Wastewater Applications in the Tropics* (2003).
173. "Mossbauer Study of Chemical State of Iron in the Fenton Reaction"

- Z. Homonnay, V.K. Sharma, P. Á. Szilágyi, E. Kuzmann, and A. Vértes
Abstract, *Condensed Matter Studies with Nuclear Methods, Zakopane, Poland* (2003).
174. "Iron(VI) and Iron(V): Environmentally Friendly Oxidants In Water and Wastewater Treatment
V.K. Sharma,
Abstract, *3rd Conference on Oxidation Technologies for Water and Wastewater Treatment, Goslar, Germany* (2003).
175. "Photocatalytic Reduction of Fe(VI) in Aqueous Solutions"
Y. Kransnova, V.K. Sharma, C. Winkelmann, and K. Winkelmann,
Abstract, *6th Annual Meeting, Florida Academy of Science, Orlando, Florida* (2003).
176. "Ferrates (Fe(VI) and Fe(V)): Environmentally Friendly Oxidants in Water Quality Security"
V.K. Sharma,
Abstract, *Florida Section AWWA Conference, Palm Harbor, Florida* (2002).
177. "Pulse Radiolysis of Reactions of Fe(VI) and Fe(V) with Cyanide, Thiocyanate, Bisulfite, and Thiosulfate"
V.K. Sharma, C.R. Burnett, D.B. O'Connor, and D. Cabelli,
Gordon Conference on Radiation Chemistry, Colby College, Waterville, ME (2002).
178. "Effect of Ferrate(VI) on the TiO₂-assisted Photodegradation of Ammonia and Cyanate"
V.K. Sharma, K. Winkelmann, and Y. Krasnova,
Abstract, *2nd European Meeting on Solar Chemistry and Photocatalysis: Environmental Application, Saint-Avold, France* (2002).
179. "Potential Role of Ferrates (Fe(VI), Fe(V), and Fe(IV)) in Wastewater Treatment"
V.K. Sharma,
Abstract, *Special Seminar Series at Research Center for Environmental Quality Control, Kyoto University, Japan* (2002).
180. "Reactivity of Higher Oxidation States of Iron (Fe(VI), Fe(V), and Fe(IV)) with Cyanide and Thiocyanate: Stopped-Flow and Premix Pulse Radiolysis Study"
V.K. Sharma and C.R. Burnett,
Abstract, *Fifth International Conference on Chemical Kinetics, Gaithersburg, MD* (2001).
181. "Radiation Chemistry of Higher Oxidation States of Iron (Fe(VI), Fe(V), and Fe(IV))"
V.K. Sharma,
Abstract, *International Symposium on Utilization of Accelerators, São Paulo, Brazil* (2001).
182. "Ferrate(V) oxidation of Sulfur-Containing Compounds: Pulse Radiolysis Study"
V.K. Sharma and D.B. O'Connor,
Abstract, *International Chemical Congress of Pacific Basin Societies, Honolulu, Hawaii* (2000).

183. "Ferrate(VI) and Ferrate(V) Oxidation of Thiocyanate"
V.K. Sharma, C.R. Burnett, and D.B. O'Connor,
Abstract, 220th ACS National Meeting, Washington, D.C. (2000).
184. "Variability of the Texas "Brown Tide" in Relation to Environmental Parameters and Metals"
V.K. Sharma,
Abstract, XIII National Oceanography Meeting Mexico, Huatulco, Oaxaca (2000).
185. "Potassium Ferrate(VI): Properties and Applications"
V.K. Sharma,
Abstract, 219th ACS National Meeting, San Francisco, California (2000).
186. "Oxidation of Sulfur-Containing Compounds by Ferrate(VI) in the Aquatic Environment"
V.K. Sharma, R.A. Rendon and F.J. Millero,
Abstract, 217th ACS National Meeting, Anaheim, California (1999).
187. "Reactivity of Ferrate(VI) with Thiocyanate in Alkaline Medium"
V.K. Sharma and W. Rivera,
Abstract, Fifth Chemical Congress of North America, Cancun, Mexico (1997).
188. "Reactivity of Ferrate(VI) and Ferrate(V) with Cyanide in Alkaline Medium"
V.K. Sharma, W. Rivera and D. O'Connor,
Abstract, Fourth International Conference on Chemical Kinetics, Gaithersburg, Maryland (1997).
189. "Removal of Cyanide in Rinse Water by Ferrate(VI)"
V.K. Sharma, B. O'Brien and J.O. Smith,
Abstract, 213th ACS National Meeting, San Francisco, California (1997).
190. "Removal of Sulfur Containing Pollutants from Wastewater Effluents by Fe(VI)"
V.K. Sharma,
Abstract, 5th Annual South Texas Environmental Conference, Corpus Christi, Texas (1997).
191. "Diurnal Role of Environmental Parameters in Texas "Brown Tide"
K.B. Rhudy, S. Hatch, W. Rivera and V.K. Sharma,
Abstract, 5th Annual South Texas Environmental Conference, Corpus Christi, Texas (1997).
192. "Spectrophotometric Determination of pH in Hypersaline Environment"
W. Rivera, K.B. Rhudy and V.K. Sharma,
Abstract, 5th Annual South Texas Environmental Conference, Corpus Christi, Texas (1997).
193. "Ferrate(VI) Oxidations of Inorganic Contaminants in Aqueous Solution"
V.K. Sharma,

- Abstract**, *Fifth Eurasia Conference on Chemical Sciences*, Guangzhou, China (1996).
194. "Trace Metal Species in Aquatic Samples of Tabasco Lagoons, Mexico"
G.F. Vazquez and V.K. Sharma,
Abstract, *Fifth Eurasia Conference on Chemical Sciences*, Guangzhou, China (1996).
195. "Oxidation of Thiourea by Ferrate(VI)"
V.K. Sharma and W. Rivera,
Abstract, *212th ACS National Meeting*, Orlando, Florida (1996).
196. "Ferrate(VI) Oxidations of Inorganic Substrates"
V.K. Sharma, W. Rivera and A.T. Baggett,
Abstract, *6th Annual Meeting, Council of Undergraduate Research*, Durham, North Carolina (1996).
197. "Trace Metals in Baffin Bay, Texas water"
K. Rhudy and V.K. Sharma,
Abstract, *4th South Texas Environmental Conference*, Corpus Christi, Texas (1996).
198. "Preliminary Investigation of Petroleum Hydrocarbon Degradation in a Coastal Stream"
S. Hicks, W. Rivera and V.K. Sharma,
Abstract, *4th South Texas Environmental Conference*, Corpus Christi, Texas (1996).
199. "Photocatalysis Treatment of Water Contaminated with Organic Chemicals"
W. Rivera, S. Peters and V.K. Sharma,
Abstract, *4th South Texas Environmental Conference*, Corpus Christi, Texas (1996).
200. "The Alkalinity and pH before the Oppal Hurricane in the South of Gulf of Mexico"
G.F. Vazquez, V.K. Sharma, C.A. Frausto, R.J. Marmolejo, O.R. Magallenez, V. Olan,
Abstract, *4th South Texas Environmental Conference*, Corpus Christi, Texas (1996).
201. "Contamination in Nueces Estuary Sediments"
V.K. Sharma, S.S. Hicks, A.T. Baggett and S. Hollyfield,
Abstract, *4th South Texas Environmental Conference*, Corpus Christi, Texas (1996).
202. "Removal of Inorganic Contaminants in Wastewater Effluents by Advanced Oxidation Process"
V.K. Sharma,
Abstract, *4th South Texas Environmental Conference*, Corpus Christi, Texas (1996).
203. "Characterization and Preliminary Quantification of Effluent Load from Three Coastal Aquaculture facilities in South Texas"
M.A. Lopez-Ivich, T.M. Samocha, A.L. Lawrence, E.R. Jones, D.A. McKee, V.K. Sharma
Abstract, *4th South Texas Environmental Conference*, Corpus Christi, Texas (1996).
204. "Petroleum Hydrocarbons in Sediments of Upper Laguna Madre, Texas"
V.K. Sharma, K. Rhudy, R. Brooks, S. Hollyfield and F.G. Vazquez,
Abstract, *Texas Academy of Science 99th Annual Meeting*, Galveston, Texas (1996).

205. "Characterization and Preliminary Quantification of Effluent Load from Three Coastal Aquiculture facilities in South Texas"
M.A. Lopez-Ivich, T.M. Samocha, A.L. Lawrence, D.A. McKee, V.K. Sharma,
Abstract, *Aquiculture Conference '96*, Arlington, Texas (1996).
206. "Hydrocarbon Contamination in Gum Hallow Creek Sediments"
S. Hicks and V.K. Sharma,
Presentation, *7th Annual South Texas Bays and Estuarine Meeting*, Port Aransas, Texas (1995).
207. "Metals in Oso Bay Sediments"
V. K. Sharma, S. Hollyfield and A.T. Baggett,
Abstract, *ERF'S 13th Biennial International Conference*, Corpus Christi, Texas (1995).
208. "Removal of Cyanide by Ferrate(VI) ion"
V.K. Sharma and J.O. Smith,
Abstract, *Sur/Fin'95 Annual Meeting*, Baltimore, Maryland (1995).
209. "Ferrate(VI) Oxidation of Aniline and Substituted Anilines"
V.K. Sharma and S. Hollyfield,
Abstract, *210th ACS National Meeting*, Chicago, Illinois (1995).
210. "Ferrate(VI) Oxidations of Inorganic Contaminants. 1. Hydrogen Sulfide"
V.K. Sharma, J.O. Smith and F.J. Millero,
Abstract, *International Chemical Congress of Pacific Basin Societies*, Honolulu, Hawaii (1995).
211. "Ferrate(VI) Oxidations of Inorganic Contaminants. 2. Cyanide"
V.K. Sharma and J.O. Smith,
Abstract, *International Chemical Congress of Pacific Basin Societies*, Honolulu, Hawaii (1995).
212. "Ferrate(VI) Oxidations of Inorganic Contaminants. 3. Ammonia"
V.K. Sharma and J.T. Bloom,
Abstract, *Emerging Technologies in Hazardous Waste Management VIII*, Atlanta, Georgia (1995).
213. "Organochlorine Pesticides in Sediments of the Nueces Bay Estuary"
V.K. Sharma and S. Hicks,
Abstract, *3rd Gulf of Mexico Symposium*, Corpus Christi, Texas (1995).
214. "Contamination in Playon de Mexiquillo, Mexico Turtles"
F.G. Vazquez, M.C.H. Reyes and V.K. Sharma,
Abstract, *ERF'S 13th Biennial International Conference*, Corpus Christi, TX (1995).
215. "Contamination in Cayo del Oso Bay, Texas Sediments"
V.K. Sharma,
Presentation, *6th Annual South Texas Bays and Estuarine Meeting*, Port Aransas, Texas

- (1994).
216. "Ferrate(VI) Oxidation of Hydrogen Sulfide"
V.K. Sharma and J.O. Smith,
Abstract, *ACS 49th Southwest Regional Meeting*, Austin, Texas (1993).
 217. "Hydrocarbons in Cayo Del Oso Bay, Texas Sediments"
 S. Hollyfield and V.K. Sharma,
Abstract, *ACS 49th Southwest Regional Meeting*, Austin, Texas (1993).
 218. "Heavy Metals in Mexican Lagoons"
V.K. Sharma,
Presentation, *5th Annual South Texas Bays and Estuarine Meeting*, Port Aransas, Texas (1993).
 219. "Fe(VI) and Fe(V) Oxidations of Pollutants in the Aquatic Environment"
V.K. Sharma,
Presentation, *Environmental Sciences-Water Gordon Research Conference*, New Hampton, New Hampshire (1992).
 220. "Reactivity of Ferrate(VI) and Ferrate(V) with Carboxylic Acids"
V.K. Sharma, G. Czapski and B.H.J. Bielski,
Abstract, *203rd ACS National Meeting*, San Francisco, California (1992).
 221. "Phosphocitrate and Citrate Influence on Calcium Phosphate Crystal Growth"
 M. Johnsson, C.F. Richardson, V.K. Sharma, J.D. Sallis and G.H. Nancollas,
Abstract, *IADR/AADR General Session*, Cincinnati, Ohio (1990).
 222. "The Rate of reduction of Cu(II) with H₂O₂ in seawater"
 F.J. Millero, V.K. Sharma and B. Karn,
Abstract, *ACS Symposium on Rates of Geochemical Processes in the Oceans*, Miami, Florida (1989).
 223. "The Effect of Ionic Interaction on the Rate of Oxidation of Cu(I) in Natural waters"
V.K. Sharma,
Abstract, *Dissertation symposium on Chemical Oceanography*, Honolulu (1988).
 224. "The Oxidation Kinetics of Cu(I) in Natural waters"
 F.J. Millero and V.K. Sharma,
Abstract, *193rd ACS National Meeting*, Denver, Colorado (1987).
 225. "Temperature Dependence of Heat Capacities and Volume of Micellization of Sodium Dodecyl Sulfate in water"
V.K. Sharma, R. Bhat and J.C. Ahluwalia,
Abstract, *5th International Conference on Surface and Colloid Science*, Potsdam, New York, June, 1985.

226. "Calorimetric Studies on the Interaction of Salts and Ureas with the Triton-X-100 in Aqueous solutions"
V.K. Sharma and R. Bhat,
Abstract, *6th International Symposium on the Surfactants in solution*, New Delhi, India (1986).
227. "The Role of Physicochemical Properties in Energy Conservation of an Industry"
V.K. Sharma and R. Bhat,
"
228. "Calorimetric Studies on the Interaction of some Sugars and Polyols with the Non-Ionic Detergent Triton-X-100"
V.K. Sharma and R. Bhat,
Presentation, *30th IUPAC Congress*, Manchester, United Kingdom (1985).

PRESENTATIONS (INVITED/KEY NOTE):

1. "Redox Strategies in Treatment for Healthy Water"
Plenary Talk at the Symposium on the DIgital REsearch CenTer (DIRECT) for Healthy Water, University of Cincinnati, Cincinnati, Ohio (March 21, 2025).
2. "Emerging Contaminants in Water Threateneing to Public Helath"
Keynote Address, International Week Celebration at the National Polytechnic Institute, Mexico City, Mexico (March 20, 2025).
3. "Art of Publishing in High Impact Journal Articles"
Worskdp, at the National Polytechnic Institute, Mexico City, Mexico (March 19, 2025).
4. "High-Valent Iron Species as Catalysts in Environmental Processes"
Invited Seminar, Ostrava Institute of Technology, Ostrava, Czech Republic (February 27, 2025).
5. "High-Valent Iron (Ferrates) in Sustainable Environment and Human Health"
Invited Seminar, Indian Institute of Technology-Roorkee, Utter Pardesh, Roorkee, India (January 27, 2025)
6. "Ferrates in Water, Energy, Food, and Human Health"
Invited Seminar, Indian Institute of Technology-Kanpur, Utter Pardesh, India (January 29, 2025)
7. "Science of High-Valent Iron in Sustainable Environment and Human Health"
Invited Presentation, The EurASc Annual Symposium & Ceremony 2024, the Academy of Sciences of Lisbon, Portugal, (October 29-30, 2024).
8. "High Valent Iron Species (Fe^{VI} , Fe^{V} , and Fe^{IV}) in Enhanced Water Purification and

Disinfection"

Invited Seminar, Department of Chemical Engineering, Columbia University, New York, NY (June 18, 2024).

9. "Ferrate in Sustainability and Population Health under Changing Environment: Enhanced Water "Purification and Disinfection"
Invited Seminar, Department of Environmental Engineering, Montclair State University, Montclair, NJ (June 14, 2024).
10. "Green Solutions: Water, Food, Energy, and Health"
Invited Presentation, Water & Climate Sustainability Symposium, International Association of Advanced materials, Utrika Campus, Sweden (April 27-29, 2024).
11. "High-Valent Intermediates (Fe(IV) and Fe(V)) in Oxidation of Low-Valent Iron and Reduction of Ferrate(VI) Species: Elucidating their Roles in Abatement of Micropollutants"
V.K. Sharma,
Invited Seminar, Department of Chemistry, Texas A&M University-Kingsville, Texas (April 9, 2024).
12. "High-Valent Iron Intermediates in Oxidation of Low-Valent iron and Reduction of High-Valent Iron in Enhanced Abatement of Micropollutants in Water"
V.K. Sharma,
Invited Seminar, Chemistry Department, Prairie View A&M university, Texas (February 1, 2024).
13. "High-Valent Iron Intermediates in Enhanced Abatement of Micropollutants in Water"
V.K. Sharma,
Invited Seminar, Department of Chemical Engineering, University of Leuven, Belgium (January 11, 2024).
14. "Activated Ferrate in Enhanced Abatement of Micropollutants in Water"
V.K. Sharma,
Invited Seminar, Department of Environmental Engineering, Kasetsart University, Bangkok, Thailand (Dec 12, 2023).
15. "High-Valent Iron Species (Fe(IV) and Fe(V)) in Enhancing Abatement of Micropollutants in Water"
V.K. Sharma,
Invited Seminar, Department of Chemistry and Bioscience, ETH, Zurich, Switzerland (Dec 8, 2023).
16. "Current Status of Micropollutants in Aquatic Environment"
V.K. Sharma,
Invited Seminar, Chemistry Department, University of Ljubljana, Slovenia (Dec 6, 2023).

17. "High-Valent Iron Intermediates in Enhanced Oxidation of Micropollutants by Ferrate(VI): Kinetics and Mechanisms"
V.K. Sharma,
Invited Seminar, National Institute of Chemistry, Ljubljana, Slovenia (Dec 5, 2023)
18. "Impact of Climate Change on Microplastic and Nanoplastic Pollution"
V.K. Sharma,
Keynote Speaker, 5th International Conference of Environmental Network Researchers Group of IPN, Veracruz, Mexico (November 17, 2023).
19. "High-Valent Iron Intermediates in Enhanced Remediation of Micropollutants in Water"
V.K. Sharma,
Invited Seminar, Department of Chemistry, Texas A&M University-Corpus Christi, Texas (October 13, 2023).
20. "High-Valent Iron Intermediates in Enhanced Abatement of Micropollutants in Water"
V.K. Sharma,
Invited Seminar, Department of Environmental Engineering, Texas A&M University-Kingsville, Texas (October 12, 2023).
21. "Reactive Species in Reactions of Environmental Interests: Kinetics and Mechanisms"
V.K. Sharma,
Invited Seminar, Leipzig Institute for Tropospheric Research (TROPOS), Leipzig, Germany (May 5, 2023).
22. "Ferrate Technology under Climate Change-Food Safety Challenges"
V.K. Sharma,
Invited Presentation, Food Safety Workshop, Food Technology Research Institute, Cairo, Egypt (April 29, 2023).
23. "Elucidating Ferrate as Advanced Material in Water Sustainable Goals"
V.K. Sharma,
Invited Talk, Sponsored by Energy and Fuels Division, the American Chemical Society and Co-Sponsored by The Chinese American Chemical Society and ACS South Texas Local Chapter (April 28, 2023).
24. "Ferrate in Population Health and Sustainability under Changing Environment: Enhanced Disinfection and Water Purification"
V.K. Sharma,
Invited Seminar, VinFuture Prize Foundation, Hanoi, Vietnam (March 13, 2023).
25. "Treatment of Pharmaceuticals in Water by Oxyiron(VI, V, and IV) (Ferrates): Kinetics and Mechanisms"
V.K. Sharma,

- Invited Seminar**, Chemistry Department, Chulalongkorn University, Bangkok, Thailand (March 14, 2023).
26. "Ferrate in Population Health and Sustainability: Enhanced Disinfection and Water Purification"
Invited Presentation, The 2nd International Conference on Water Technologies (ICWT2022), Indian Institute of Technology, Bombay, India (December 1, 2022).
 27. "Ferretting in Population Health and Sustainability: Enhanced Disinfection and Water Purification"
Invited Seminar, University of Arizona, Tucson, Arizona (October 11, 2022).
 28. "High-Valent Iron Intermediates in Enhanced Oxidation of Pollutants by Ferrate"
V.K. Sharma,
Invited Presentation, European assembly of Advanced Materials Congress (AMC), Stockholm, Sweden (28 - 31 August 2022).
 29. "Fate of Microplastics Under Environmental Relevant Conditions"
V.K. Sharma,
Keynote Speaker, International Webinar on Microplastics in Environment, Bangkok, Thailand (August 3, 2022).
 30. "Ferrate-Based Enhanced Oxidation of Micropollutants in Water: Delineating the Multi-Oxidants Mechanisms"
Invited Seminar, Ariel University, Ariel (May 25, 2022).
 31. "Activated Ferrate(VI): Rapid Degradation of Micropollutants in Water"
Invited Webinar, Nanjing University, Nanjing, China (May 30, 2022).
 32. "High-Valent Iron Intermediates in Enhanced Oxidation of Pollutants by Ferrate"
Invited Webinar, Le Mans University, Le Mans, France (March 15, 2022).
 33. "Enhancing Water Sustainability by Activated Ferrate(VI): Role of High-Valent Iron Intermediates"
V.K. Sharma,
Invited Speaker, ACS-MENA Meeting, Doha, Qatar (March 10, 2022).
 34. "Ferrate in Population Health Care: Enhanced Hospital Disinfection and Water Purification"
Invited Seminar, Department of Chemical and Environmental Engineering, University of Cincinnati, Ohio (August 28, 2020).
 35. "Ferrates: Advanced Materials in Enhanced Hospital Disinfection and Water Purification"
Invited Seminar, International Association of Advanced Materials, Sweden (June 8, 2020).

36. "Ferrate Technology in Population Health: Enhanced Hospital Disinfection and Water Purification"
Invited Seminar, Department of Material Science and Engineering, University of Texas, Arlington, Texas (February 21, 2020).
37. "Ferrate Technology in Population Health: Enhanced Hospital Disinfection and Water Purification"
Sigma Xi Outstanding Distinguished Scientist Lecture, Texas A&M University, College Station, Texas (February 10, 2020).
38. "High-Valent Iron Species (Ferrates): Multimodal Action in Water Treatment"
Invited Seminar, Department of Environmental Science and Engineering, Georgia Institute of Technology, Atlanta, Georgia (January 24, 2020).
39. "Current Status of Ferrate Treatment in Water and Wastewater"
Inviting Seminar, Department of Environmental Science, Peking University, Beijing, China (November 29, 2019).
40. "High-Valent Species (Ferrates) in Oxidation of Micropollutants in Water and Hydrolysed Urine"
Inviting Seminar, Shaanxi University of Science and Technology, Xian, China (November 28, 2019).
41. "High-Valent Species (Ferrates) in Oxidation of Micropollutants in Water and Hydrolysed Urine"
Inviting Seminar, Institute of Earth Environment, Chinese Academy of Science, Xian, China (November 28, 2019).
42. "Natural Nanoparticles: Mechanism of Formation, Stability, and Toxicity in Aquatic Environment"
Inviting Seminar, Faculty of Environmental Science and Engineering, Kunming University of Science and Technology, Kunming, China (November 27, 2019).
43. "Ferrate Technology: Current Status to Oxidize Pollutants in Water"
Inviting Seminar, Department of Environmental Engineering, Chulalongkorn University, Bangkok, Thailand (October 2, 2019).
44. "High-Valent Iron Species (Ferrates) in Environmental Remediation"
Inviting Seminar, Department of Biological and Environmental Chemistry, Faculty of Humanity-oriented Science and Engineering Kindai University, Fukuoka, Japan (September 30, 2019).
45. "Advances in Ferrate Technology: Elucidating Role of Activated Ferrate to Remove Organic Pollutants Rapidly"
Inviting Seminar, College of Environmental Science, Zhejiang University of Technology, Hangzhou, China (September 27, 2019).

46. "Advances in Ferrate Technology: Elucidating Role of Activated Ferrate to Remove Organic Pollutants Rapidly"
Pleenary Presentation, 2019 International Symposium of Environmental Science and Technology, Hangzhou, China (September 26, 2019).
47. "Ferrate Technology: Current Status to Oxidize Pollutants in Water"
Inviting Seminar, College of Environmental Science, Jiaxiang University, Jiaxiang University, China (September 25, 2019).
48. "Advances in Ferrate Technology: Elucidating Role of Activated Ferrate to Remove Organic Pollutants Rapidly"
Inviting Seminar, College of Environmental Science, Shanghai University of Technology, Shanghai, China (September 24, 2019).
49. "Advances in Ferrate Technology: Elucidating Role of Activated Ferrate to Remove Organic Pollutants Rapidly"
Inviting Seminar, College of Environmental Science, Xiamen University, Xiamen, China (September 23, 2019).
50. "Current Status of Ferrate Technology in Oxidizing Micropollutants and Natural Nanoparticles in Environment"
Inviting Seminar, Dalian University of Technology, Dalian, China (September 4, 2019).
51. "Conducting Scientific Research and Publishing Research"
Inviting Seminar, North Electric Power University, Jilin City, China (July 26, 2019).
52. "Activated Ferrate to Rapidly Oxidize organic pollutants in water"
Inviting Seminar, North Electric Power University, Jilin City, China (July 26, 2019).
53. "High-Valent Iron Species (Ferrates): Energy and Environmental Applications"
Inviting Seminar, Chemistry Department, Inner Mongolia University, Hohhot, China (July 23, 2019).
54. "Advances in Ferrate Technology: Elucidating Role of Activated Ferrate to Remove Organic Pollutants Rapidly"
Inviting Seminar, College of Environmental Science and Sustainable Resources, Nanjing Agricultural University, Nanjing, China (July 19, 2019).
55. "Advances in Ferrate Technology: Elucidating Role of Activated Ferrate to Remove Organic Pollutants Rapidly"
Inviting Seminar, Department of Environmental Engineering, Nankai University, Tianjin, China (July 18, 2019).
56. "Advances in Ferrate Technology: Elucidating Role of Activated Ferrate to

- Remove Organic Pollutants Rapidly”
Inviting Seminar, Department of Environmental Engineering, Sichuan University, Chengdu, China (July 12, 2019).
57. “Advances in Ferrate Technology: Elucidating Role of Activated Ferrate to Remove Organic Pollutants Rapidly”
Inviting Seminar, Department of Environmental Engineering, Polytechnic University, of Technology, Hong Kong, China (July 11, 2019).
 58. “Advances in Ferrate Technology: Elucidating Role of Activated Ferrate to Remove Organic Pollutants Rapidly”
Inviting Seminar, Department of Environmental Engineering, Southern University of Science and Technology, Shenzhen, China (July 9, 2019).
 59. “Natural Noble Metal Nanoparticles: Formation, Stabilization, and Toxicity in Aquatic Environment”
Inviting Seminar, Institute of Geochemistry, Chinese Academy of Science, Guiyang, China (July 4, 2019).
 60. “Role of Natural Organic Matter in Formation of Disinfection Byproducts and Natural Nanoparticles”
Plenary Speaker, NOM and Environment, Kunming, China (June 29, 2019).
 61. “Advances in Ferrate Technology: Elucidating Role of Activated Ferrate to Remove Organic Pollutants Rapidly”
Invited Seminar, Université Paris-Est Marne la Vallée, Institut Francilien des Sciences Appliquées, Paris, France (May 22, 2019)
 62. “High-Valent Iron Species in Super Iron, Organic Synthesis, and Purification of Water”
Invited Seminar, National Center of Scientific Research, Athens, Greece (May 10, 2019).
 - 63.** “Ferrates in Purification of Water and Wastewater”
Invited Seminar, College of Urban and Environmental Sciences, Peking University, Beijing, China (April 29, 2019).
 64. “Activated Ferrate: Accelerated Oxidation of Organic Pollutants in Water”
Plenary Talk, International Symposium of Nanoscience and Nanotechnology, Xian, China (April 27, 2019).
 65. “Ferrate Treatment Technology: Oxidation and Coagulation of Pollutants and Inactivation of Microorganisms”
Invited Seminar, Chemistry Department, Kunming University of Science and Technology, Kunming, China (April 26, 2019).
 66. “Activated Ferrate to Rapidly Oxidize Organic Pollutants in water”

- Invited Seminar**, Dalian University of Science and Technology, Dalian, China (April 24, 2019).
67. "Natural Nanoparticles: Mechanism of Formation and Toxicity in Aquatic Environment"
Invited Seminar, Guangdong Institute of Soil Science, Guangzhou, China (March 16, 2019).
 68. "Activated Ferrate: Accelerated Oxidation of Organic Pollutants in Water"
Invited Seminar, Guangdong University of Technology, Guangzhou, China (March 15, 2019).
 69. "Activated Ferrate(VI): Involvement of Fe^{V} and Fe^{IV} in Rapid Oxidation of Organic Pollutants in Water"
Invited Seminar, Sun-Yat Sun University, Guangzhou, China (March 15, 2019).
 70. "Natural Noble Metal Nanoparticles: Formation, Stabilization, and Toxicity in Aquatic Environment"
Invited Seminar, Guangdong Institute of Soil Science, Guangzhou, China (March 14, 2019).
 71. "Ferrates in Purification of Water and Wastewater"
Invited Seminar, Fuzhou Normal University, Fuzhou, China (March 13, 2019).
 72. "High-Valent Iron Species in Super Iron, Organic Synthesis, and Purification of Water"
Invited Seminar, Fuzhou University, Fuzhou, China (March 13, 2019).
 73. "Ferrates: Green Materials in Energy Storage, Organic Synthesis, and Purification of Water"
Invited Seminar, Urban Environmental Institute, Chinese Academy of Science, Xiamen, China (March 12, 2019).
 74. "Ferrate Treatment Technology: Oxidation and Coagulation of Pollutants and Inactivation of Microorganisms"
Invited Seminar, Department of Chemistry, Texas A&M University-Corpus Christi, Corpus Christi, Texas (March 4, 2019).
 75. "Ferrates: Green Materials in Energy Storage, Organic Synthesis, and Purification of Water"
Invited Seminar, Department of Chemistry, Texas A&M University-Kingsville, Kingsville (March 4, 2019).
 76. "High-Valent Iron Species in Supper Iron, Organic Synthesis, and Purification of Water"
Invited Seminar, Department of Chemistry, University of Texas-Rio Grande Valley, Texas (March 5, 2019).

77. "Ferrate Technology: Current Status in Treatment of Water and Wastewater"
Invited Seminar, Department of Chemical and Biochemical Engineering, Western University, London, Canada (2018)
78. "Natural Noble Metals Nanoparticles: Formation, Stabilization, and Toxicity in the Environment"
Keynote Speaker, The 2018 International Conference on Nanogeosciences", Guiyang, China (2018).
79. "Natural Noble Metals Nanoparticles: Formation, Stabilization, and Toxicity in the Environment"
Invited Seminar, Faculty of Agricultural and Food Sciences, American University of Beirut, Beirut, Lebanon (2018).
80. "Ferrates: Emerging Advanced Materials in Biomedical, Environmental, Energy, and Industrial Applications"
Invited Seminar, School of Public Health, American University of Beirut, Beirut, Lebanon (2018).
81. "Ferrates: Emerging Advanced Materials in Energy, Biomedical, Industrial Synthesis, and Environmental Remediation"
Invited Seminar, International Research Center of Renewable Energy, Xian Jiaotong University, Xian (2018).
82. "Current Status of Ferrate Technology in Treatment and Natural Nanoparticles in Environment"
Invited Seminar, Lanzhou Institute of Chemical Physics, Lanzhou (2018).
83. "Ferrate Technology in Treatment of Contaminated Water"
Invited Seminar, Department of Environmental Engineering, Chongqing University, Chongqing, China (2018).
84. "Ferrate Technology in Treatment of Contaminated Water"
Invited Seminar, School of Environmental Science, Chongqing Jiaotong University, Chongqing, China (2018).
85. "Ferrate Technology in Treatment of Contaminated Water"
Invited Seminar, Department of Environmental Engineering, Sichuan University, Chengdu, China (2018).
86. "Treatment of Contaminants using Ferrate Technology: Current Status"

- Invited Seminar, Department of Environmental Engineering, The University of Hong Kong, Hong Kong (China).**
87. "Natural Nanoparticles: Formation, Stabilization and Toxicity in Aquatic Environment"
Invited Seminar, Northwest A&F University, Yangling, China (2018).
 88. **"Collaborations in China in Environmental Science and Technology"**
Invited Seminar, Shaanxi University of Science and Technology, Xian, China (2018).
 89. **"Conducting Scientific Research and Publishing Research"**
Invited Seminar, Shaanxi University of Science and Technology, Xian, China (2018).
 90. "Treatment of Contaminants using Ferrate Technology: Current Status"
Invited Seminar, Department of Environmental Engineering, Harbin Institute of Technology-Weihai, Weihai (2018)
 91. **"Ferrates: Emerging Advanced Materials in Energy, Biomedical, Industrial Synthesis, and Environmental Remediation"**
Invited Seminar, College of Environmental Science, Zhejiang University, Hangzhou (2018).
 92. **"Current Status of Ferrate Technology in Treatment and Natural Nanoparticles in Environment"**
Invited Seminar, Zhejiang University of Science and Technology, Hangzhou (2018).
 93. "Ferrate Technology in Treatment of Contaminated Water"
Invited Seminar, Department of Environmental Science, Jilin Agricultural University, Changchun, China (2018).
 94. "Ferrate Technology in Treatment of Contaminated Water"
Invited Seminar, Northeast Electric Power University, Jilin, China (2018).
 95. "Natural Nanoparticles: Formation, Stabilization and Toxicity in Aquatic Environment"
Invited Seminar, Department of Environmental Science, Northeast Electric Power University, Jilin, China (2018).
 96. "High-Valent Iron Species (Ferrates) in Sustainable Water Treatment: Underlying Reaction Mechanisms"
Invited Seminar, Department of Chemistry, University of Texas, Arlington, Texas

(2017).

97. **"Ferrate Technology: Green and Sustainable in Water Treatment"**
Invited Seminar, College of Environmental Science, Baylor University, Waco, Texas
(2017).
98. "Activation of Ferrate in Treatment of Micropollutants: Current Knowledge and Future Outlook"
Key Note Plenary Presentation, 2017 International Symposium on Environmental Science and Technology, Beijing, China (2017).
99. "Ferrate Treatment Technology in Sustainable Water Environment"
Invited Presentation, International Conference in Sustainability, Seoul, South Korea
(2017).
100. **"Collaboration in Environmental Science in China"**
Invited Presentation, 2017 International Symposium on Environmental Science and Technology, Beijing, China (2017).
101. **"Natural Inorganic Nanoparticles: Formation, Fate, and Toxicity in Environment"**
Key Note Lecture, 33rd International Conference of the Society for Environmental Geochemistry and Health (SEGH 2017), Guangzhou, China (2017).
102. "Advances Made in Ferrate Technology to Treat Water and Wastewater"
Invited Presentation, North China Electric Power University, Beijing, China
(2017).
103. **"Natural Nanoparticles: Formation, Fate, and Toxicity in Environment"**
Invited Seminar, Department of Environmental Science & Engineering, Xian Jiaotong University, China (2017).
104. **"Ferrates: Emerging Advanced Materials for Energy, Environment, Biomedical and Industrial Organic Synthesis"**
Invited Seminar, College of Environmental Science and Technology, Shaanxi University of Science and Technology, Xian, China (2017)
105. **"Natural Nanoparticles: Formation, Fate, and Toxicity in Environment"**
Invited Seminar, Regional Center for Eco-Environmentally Sciences, Chinese Academy of Science, Beijing, China (2017).

106. "Ferrate Treatment Technology in Sustainable Water Environment"
Invited Seminar, Environmental Science and Technology, Dalian University of Technology, Dalian, China (2017).
107. "Natural Nanoparticles: Formation, Fate, and Toxicity in Environment"
Invited Seminar, College of Environmental Science, Zhejiang University, Hangzhou, China (2017).
108. "Ferrates(Fe^{VI} , Fe^{V} , and Fe^{IV}) as Green Materials in Multimodal Action to Treat Water"
Invited Seminar, Chemistry Department, Ewha Women University, Seoul, South Korea, China (2017).
109. "Ferrate Treatment Technology in Sustainable Water Environment"
Invited Seminar, Department of Environmental Engineering, Nanyang Technical University, Singapore (2017).
110. "Ferrate Treatment Technology: Oxidation and Coagulation of Pollutants and Inactivation of Microorganisms"
Invited Seminar, Department of Environmental Science and Engineering, National University of Singapore, Singapore (2017).
111. "Ferrate Treatment Technology in Sustainable Water Environment"
Invited Seminar, Department of Environmental Engineering, Zhejiang University, Hangzhou. China (2017).
112. "Ferrates(Fe^{VI} , Fe^{V} , and Fe^{IV}) as Green Materials in Multimodal Action to Treat Water"
Invited Seminar, Dalian Institute of Chemical Physics, Dalian, China (2017).
113. "High-Valent Iron Based Materials in Water Treatment"
Invited Presentation, International Workshop of Advanced Materials, Urumqi (China).
114. "Natural Nanoparticles: Formation, Fate, and Toxicity in Environment"
Invited Seminar, Environmental Science, Nanjing University, China (2017).
115. "Ferrate Technology in Water Sustainable Environment"
Invited Seminar, Central South University, Changsha, China (2017).
116. "Ferrate Treatment Technology in Sustainable Water Environment"
Invited Seminar, Chemistry Department, Wuhan University, Wuhan, China (2017).

117. "Ferrate Treatment Technology in Sustainable Water Environment"
Invited Seminar, Department of Environmental Engineering, Hanzhong University of Science and Technology, Wuhan, China (2017).
118. "Ferrate Treatment Technology in Sustainable Water Environment"
Invited Seminar, Institute of Urban Environment, Chinese Academy of Science, Xiamen, China (2017).
119. "Nanoparticles in the Environment: Formation, Fate, and Toxicity"
Invited Seminar, Xiamen University, Xiamen, China (2017).
120. "Collaboration in Environmental Science and Technology in China"
Invited Seminar, Sun Yat Sen University, Guangzhou, China (2017).
121. "Iron-, Silver-, and Carbon- Based Materials in Environmental and Energy Applications"
Invited Seminar, University of North South Wales, Sydney, Australia (2017).
122. "Purification of Water using Iron Oxides: Green and Sustainable Ferrate Technology in Water Treatment"
Invited Seminar, Western Sydney University, Sydney, Australia (2017).
123. "Ferrate Technology: Green and Sustainable in Water Treatment"
V.K. Sharma, Key Note Speaker, Workshop on Environmental Iron Chemistry, Shanghai, China (2016).
124. "Iron-, Silver-, and Carbon- Based Materials in Environmental and Energy Applications"
Invited Seminar, Xiamen University, Xiamen, China (2016).
125. "Ferrate as a Greener Compound: Oxygen Evolution from Water, Organic Synthesis, and Oxidative Transformation of Contaminants"
Invited Seminar, Shaanxi University of Science and Technology, Xian, China (2016).
126. "Reactive Species in Treatment of Water and Wastewater"
Invited Workshop, Kunming University of Science and Technology, Kunming, China (2016).
127. "Advances Made in Ferrate Technology to Treat Water and Wastewater"
Invited Seminar, Nanjing University, Nanjing, China (2016).
128. "Ferrate as a Greener Compound: Oxygen Evolution from Water, Organic Synthesis, and

Oxidative Transformation of Contaminants”

Invited Seminar, Nanjing University of Technology, Nanjing, China (2016).

129. “Ferrate Technology: Advances made in Treating Water and Wastewater”
Invited Seminar, Jiatong Xian University, Xian, China (2016).
130. **“Reactive Species in Treatment of Water and Wastewater”**
Invited Workshop, Western University, London, Ontario, Canada (2016)
131. “Iron-, Silver-, and Carbon- Based Materials in Environmental and Energy Applications”
Invited Seminar, Sun Yat Sen University, Guangzhou, China (2016).
132. **“Advances Made in Ferrate Technology to Treat Water and Wastewater”**
Invited Seminar, Chinese Academy of Science, Urumqi, China (2016).
133. “Natural Nanoparticles in the Environment: Formation, Fate, and Toxicity”
Invited Seminar, Chinese Academy of Science, Urumqi, China (2016).
134. “Inorganic Nanoparticles in Natural Environment: Formation and Fate”
Invited Seminar, Shandong University, Jinan, China (2016)
135. “Ferrites in Sustainable Energy and Environmental Remediation: Mössbauer Spectroscopy Characterization”
Invited Presentation, Mediterranean Conference on the Applications of the Mössbauer Effect” Cavtat, Croatia (2016).
136. **“Conducting Research and Publishing Scientific Research”**
Invited Presentation, Center of Cyanobacteria and Toxins, Chinese Academy of Science, Brno, Czech Republic (2016).
137. **“Iron-, Silver-, and Carbon-Based Nanomaterials in Environmental and Energy Applications”**
Invited Seminar, University of Texas at Arlington, Arlington, Texas (2016).
138. **“Invited Seminar, Nanjing Institute of Technology, Nanjing, China (2016).**
“Advances
Made in Ferrate Technology in Treating Water and Wastewater”
Invited Seminar, Dalian University of Technology, Dalian, China (2016).
139. **“Iron-, Noble Metals-, and Carbon-Based Nanomaterials in Environmental and Energy Applications”**
Invited Seminar, Institute of Urban Environment, Chinese Academy of Science, Xiamen, China (2016).

140. **"Pulse Radiolysis Studies of Ferrates"**
Invited Seminar, Tongji University, Shanghai, China (2016).
141. **"Advances Made in Ferrate Technology to Treat Water and Wastewater"**
Invited Seminar, Nanjing University, Nanjing, China (2016).
142. **"Iron-, Silver-, and Carbon-Based Nanomaterials in Environmental and Energy Applications"**
Invited Seminar, Nanjing Institute of Technology, Nanjing, China (2016).
143. **"Advances Made in Ferrate Technology to Treat Water and Wastewater"**
Invited Seminar, Huaqiao University, Xiamen, China (2016).
144. **"Iron- and Carbon-Based Materials in Energy and Environmental Applications"**
Invited Seminar, Xiamen Institute of Technology, Xiamen, China (2016).
145. "Ferrate and Ferryl Species: Mossbauer Spectroscopy Investigations"
Invited Speaker, *MECAME 2015, Mediterranean Conference on the Applications of the Mossbauer Effect*, Zadar, Croatia (2015).
146. "Ferrate(VI)-Promoted Removal of Metals by Ferrate(VI): Mechanism Studies using Mössbauer Spectroscopy"
Invited Speaker, *The International Conference on the Applications of the Mössbauer Effect (ICAME)*, Hamburg, Germany (2015).
147. "Multimodal Actions of Ferrate Treatment Technology in Removing Metals, Pharmaceuticals, and Cyanotoxins in Water"
Plenary Presentation, *2015 International Symposium on Environmental Science and Technology*, Chongqing, China (2015).
148. "Iron Based Sustainable Greener Technologies to Treat Cyanobacteria and Microcystin-LR in Water"
Keynote Presentation, *IWA, 2015 International Workshop on Occurrence and Control of Taste, Odours, and Algal Toxins in Waters*, Xiamen, China (2015).
149. "Ferrates(VI, V, and IV): Oxidants/Disinfectants/Coagulants in Water Treatment Technologies"
Invited Seminar, Harbin Institute of Technology, Shenzhen Graduate School, Shenzhen, China (2015).
150. "Ferrates(VI, V, and IV): Multimodal Action in Sustainable Water Treatment Technologies"
Invited Seminar, Kunming University of Science and Technology, Faculty of Environmental Science and Engineering, Kunming, China (2015).

151. "Natural Particles in Environment"
Invited Seminar, Yunan Agricultural University, Kunming, China (2015).
152. "Ferrates: Green Oxidants with Multimodal Actions in Sustainable Treatment Technologies"
Invited Seminar, Research Center of Environmental Eco-Friendly Sciences, Chinese Academy of Science, Beijing, China (2015).
153. "Iron Oxides (Ferrates) as Green Materials for Sustainable Water Treatment"
Invited Speaker, The 10th Asia Pacific Conference on Sustainable Energy & Environmental Technologies, Seoul, Korea (2015).
154. "Water Supply Sustainability and Treatment Strategies: Challenges in Coming Decades"
Invited Seminar, School of Public Health, Peking University, Beijing, China (2015).
155. "High-Valent Iron Species (Ferrates) in Sustainable Water Treatment: Underlying Reaction Mechanisms"
Invited Seminar, Institute of Chemistry, Chinese Academy of Science, Beijing, China (2015).
156. "Formation and Fate of Natural Inorganic Nanoparticles: Underlying Mechanisms"
Invited Seminar, College of Environmental Science and Engineering, Peking University, Beijing, China (2015).
157. "Ferrate (Iron-Based Material): A Broad Portfolio of Applications"
Invited Seminar, Lisbon, Faculty of Pharmacy, Lisbon, Portugal (2015).
158. "Ferrates: Green Oxidants with Multimodal Actions in Treatment Technologies"
Invited Seminar, Department of Civil and Environmental Engineering, Rice University, Texas (2015)
159. "Ferrates (Iron-Based Material): A Broad Portfolio of Applications"
Invited Presentation, Earth Day Texas 2015, Dallas, Texas (2015).
160. "Emerging Issues- Climate Change and Water Pollution – Diseases"
Invited Presentation, Bush China-US Conference, Houston, Texas (2015).
161. "Ferrates and Ferryl Species: Mössbauer Spectroscopy Investigations"
Invited Presentation, Mediterranean Conference on the Applications of the Mössbauer Effect" 2015, Zadar, Croatia (2015).
162. "Ferrates (Iron-Based Material): A Broad Portfolio of Applications"
Invited Seminar, Institute for Medicines and Pharmaceutical Sciences, Lisbon University, Lisbon, Portugal (2015).
163. "High-Valent Iron Species: Greener Materials in Sustainable Treatment Technologies"

- Invited Seminar**, Chemistry Department, Osaka University, Osaka, Japan (2015).
164. "Novel Ferrate Technology in Treating Emerging Pollutants and Toxins in Water"
Invited Seminar, Chemistry Department, Tokyo Metropolitan University, Tokyo, Japan (2015).
165. "Water Structure and Ferrates as Green Material in Treating Water"
Invited Lecture, Chemistry Department, Toho University, Chiba, Japan (2015).
166. "Ferrates: Green Materials in Treating Water and Natural Silver Nanoparticles in the Environment"
Invited Seminar, Department of Chemistry, Hohai Univeristy, Nanjing (2015).
167. "Ferrates: Greener Oxidants with Multimodal Action in Treatment Technologies"
Invited Seminar, Department of Environmental Engineering, Tongji University, Shanghai, China (2014).
168. "Ferrates: Green Materials in Treating Water and Natural Silver Nanoparticles in the Environment"
Invited Seminar, School of Public Heath, Shandong University, Jinan, China (2015).
169. "Ferrates: Green Materials in Treating Water and Natural Silver Nanoparticles in the Environment"
Invited Seminar, Department of Environmental Engineering, Zheijiang University, Hongzhou, China (2015).
170. "Ferrates: Greener Oxidants with Multimodal Action in Treatment Technologies"
Invited Seminar, Institute of Geochemistry, Chinese Academy of Science, Guangzhou, China (2014).
171. "Ferrates: Disinfecting and Detoxifying Agents"
Invited Seminar, Department of Environmental Engineering, Sun-Yat Sen University, Guangzhou, China (2014).
172. "High-Valent Iron-Based Green Materials in Purifying Air and Water"
Invited Lecture, *Workshop on Green Chemistry on Environmental Technology and Materials*, Tunghai University, Department of Environmental Science and Engineering, Taichung City, Taiwan (2014).
173. "Silver Nanoparticles: Formation, Fate, and Toxicity in Aquatic Environment"
Invited Seminar, Hung Kuang University, Taichung City, Taiwan (2014).
174. "Ferrates- Chemistry and Applications"
Invited Seminar, National Chi Nan University, Nantou County, Taiwan (2014)

175. "High-Valent Iron Species as Green Materials for Disinfection and Detoxification"
Invited Seminar, Veterinary Medicine & Biomedical Sciences, Texas A&M University, College Station, Texas (2014)
176. "Ferrates(VI, V, and IV): Oxidants/Disinfectants/Coagulants in Water Treatment Technologies"
Invited Seminar, Swiss Federal Institute of Aquatic Science and Technology (EAWAG), Dübendorf, Switzerland (2014).
177. "Ferrites and Ferrates: Green Materials in Energy and Environmental Applications"
Invited Seminar, Ruđer Bošković Institute, Zagreb, Croatia (2014).
178. "Ferrates and Ferrites: Decomposition and Application Studies using Mossbauer Spectroscopy"
Invited Speaker, Conference on Mossbauer Spectroscopy in Materials Science (MSMS 2014), Hlohovec, Czech Republic (2014).
179. "Mossbauer Spectroscopy: Applications in Biology, Chemistry, Nanotechnology, and Industry"
Invited Seminar, Technical University of Warsaw, Warsaw, Poland (2014).
180. "Reactive Intermediates in Treatment of Water and Wastewater"
Invited Lecture, Harbin Institute of Technology, Harbin, China (2014).
181. "Ferrates as Disinfectant and Green Chemical to Treatment Pollutants in Water"
Invited Seminar, Northeast Dailin University, Jilin City, China (2014).
182. "Conduct Scientific Research and Publish Results"
Invited Lecture, Northeast Dailin University, Jilin City, China (2014).
183. "Ferrates (VI, V, and IV): Fundamentals and Applications"
Invited Seminar, Notre Dame Radiation Center, Notre dame, Indiana (2013).
184. "Ferrate as Disinfectant and Green Chemical to Treat Pollutants in Water"
Invited Seminar, Barry University, Miami, Florida (2013).
185. "Ferrates(IV,V, and VI): Fundamental and Applications in Treatment of Water and Wastewater"
Invited Seminar, State Key Laboratory of Pesticides & Chemical Biology, Ministry of Education, Hua Zhong Normal University, Wuhan, China (2013).
186. "Ferrate Technology in Treatment of Water and Wastewater"
Invited Seminar, Harbin Institute of Technology, Harbin, China (2013).
187. "Ferrites and Ferrates as Environmental Friendly Materials in Photocatalytic Remediation And Energy Processes"

- Invited Seminar**, Dalian Institute of Chemical Physics, Dalian, China (2013).
188. "Photocatalytic Oxidation of Amino Acids"
Invited Presentation, *2013 International Symposium on Environmental Science and Technology*, Dalian, China (2013).
189. "Advances Made in Ferrate Technology To Treat Water and Wastewater"
Plenary Presentation, *2013 International Symposium on Environmental Science and Technology*, Dalian, China (2013).
190. "Ferrites and Ferrates as Environmental Friendly Materials: Mössbauer Spectroscopy Investigation"
Invited Seminar, Institute of Molecules and Materials of Le Mans, CNRS, University of Maine, France (2013).
191. "Ferrates(IV, V, and VI): Fundamentals and Applications"
Invited Seminar, School of Architecture, Civil and Environmental Engineering (ENAC), Ecole Polytechnique Fédérale Lausanne, Switzerland (2013).
192. "Ferrate Technology in Water and Wastewater Treatment"
Invited Seminar, KWR Watercycle Research Institute, Nieuwegein, Netherlands (2013).
193. "Oxidation of compounds by high-valent iron species: one- and two-electron transfer Steps"
Invited Presentation, *245th ACS National Meeting*, New Orleans, Louisiana (2013).
194. "Oxidative transformation of microcystin-LR by ferrate"
Invited Presentation, *245th ACS National Meeting*, New Orleans, Louisiana (2013).
195. "Ferrates(VI, V, and IV): Fundamentals and Applications"
Invited Seminar, Chemistry Department, Florida International University, Miami, Florida (2013).
196. "Oxidation of Pharmaceuticals by Ferrate(VI)"
Invited Seminar, Department of Environmental Engineering, University of Seoul, Seoul, Korea (2013).
197. "Ferrate(VI): Fundamentals and Applications"
Invited Seminar, Department of Environmental Engineering, Yonsei University, Wonju, Korea (2013).
198. "Mossbauer Spectroscopy of High-Valent iron Species: Industrial and Environmental Applications"
Invited Speaker, *XIII Latin American Conference on the Applications of the Mössbauer Effect - LACAME 2012*, Medellín, Colombia (2012).

199. "Ferrate(VI), V, and IV): Fundamentals and Applications"
Invited Seminar, Institute of Chemistry, Chinese Academy of Science, Beijing, China (2012).
200. "Novel Ferrate Technology in Purifying Air and Water"
Invited Seminar, Environmental Engineering, Shandong University, Jinan, China (2012).
201. "Mossbauer Spectroscopy in Studying of Synthesis and Environmental Applications of Ferrate(VI)"
Plenary Presentation, *Mossbauer Spectroscopy in Material Science 2012*, Olomouc, Czech Republic (2012).
202. "Water Consumption and Water Treatment: Regional Aspects"
Invited Presentation, *Sustainability 2012: Regional Aspects, International Interdisciplinary Sustainability Forum*, Eger, Hungary (2012)
203. "Formation and Stability of Silver Nanoparticles in Aquatic Environment"
Invited Seminar, *Research Center for Toxic Compounds, Masaryk University*, Brno, Czech Republic (2012).
204. "Oxidation of Emerging Contaminants by Novel Ferrate Technology"
Invited Seminar, *Laboratoire Géomatériaux et Environnement (LGE)*, Université Paris-Est, Paris (2012).
205. "Oxidation of Emerging Contaminants by Novel Ferrate Technology"
Invited Seminar, *Institute of Chemical Engineering and Environmental Technology, Graz University of Technology*, Graz, Austria (2012).
206. "Safe and Efficient Cleaning of Polluted Water by Novel Ferrate Technology"
Invited Seminar, *Department of Chemical Engineering, University of Western Ontario*, London, Canada (2012).
207. "Novel Ferrate Technology in Water and Wastewater Treatment"
Invited Seminar, *Department of Civil and Environmental Engineering, University of Toronto*, Toronto, Canada (2012).
208. "Ferrates(VI, V, and IV): Fundamentals and Applications"
Invited Seminar, *Federal Institute of Hydrology, Koblenz*, Germany (2012).
209. "Silver Nanoparticles: Synthesis, Characterization, and fate in the Aquatic Environment"
Invited Seminar, *Regional Center of Advanced Technologies and Materials, Palacky University*, Olomouc, Czech Republic (2012).

210. "Oxidation of Pollutants by Novel Ferrate Technology"
Invited Seminar, *School of Environmental Science and Engineering, Sun Yat-sen University, Guangzhou, China* (2011).
211. "Chemistry of Ferrates(VI, V, and IV): Fundamentals and Applications"
Invited Seminar, *Regional Center of Advanced Technologies and Materials, Palacky University, Olomouc, Czech Republic* (2011).
212. "Oxidation of Pollutants by Novel Ferrate Technology"
Invited Seminar, *Vienna Institute of Technology, Vienna, Austria* (2011).
213. "Oxidation of Pollutants by Novel Ferrate Technology"
Invited Seminar, *Tunghai University, Taichung, Taiwan* (2011).
214. "Water Splitting to Generate Hydrogen using Visible Light Photocatalysts"
Invited Seminar, *National Tsing Hua University, Hsinchu, Taiwan* (2011).
215. "Oxidation of Pollutants by Novel Ferrate Technology"
Invited Seminar, *Graduate Institute of Environmental Engineering, National Taiwan University, Taipei, Taiwan* (2011).
216. "Ferrates(Fe(VI), V, and IV): Green Chemistry Oxidants"
Invited Seminar, *VERFIN Finnish Institute for Verification of the Chemical Weapons Convention, University of Helsinki, Finland* (2011).
217. "Fate, Effects, and Control of Sea-Dumped Chemical Weapons"
Invited Seminar, *International Seminar on Environmental Effects Related to Waste Originating from Sea-Dumped Chemical Munitions, Vilnius, Lithuania* (2011)
218. "Ferrate Technology in Water Supply Sustainability"
Plenary Presentation, *2011 International Symposium on Environmental Science and Technology, Dongguan, Guangdong Province, China* (2011).
219. "Oxidation of Pollutants by Novel Ferrate(VI) Process: Fundamentals and Applications"
Invited Presentation, *International Workshop on Frontiers in Environmental Chemical Research, POSTECH, Korea* (2011)
220. "Ferrates(VI, V, and IV): Green Chemistry Oxidants"
Invited Seminar, *Long Island ACS Section, New York* (2011).
221. "Reactivity of Aqua Ferrate (VI, V, and IV) with Inorganic and Organic Compounds: Green Chemistry"
Invited Seminar, *Maria Sklodowska-Curie Polish Radiation Research Society, Lodz, Poland* (2010).

222. "Ferrates(VI, V, and IV): Green Chemistry Oxidants in Water Treatment"
Invited Seminar, *Water Research Institute, National Research Council, Rome, Italy* (2010).
223. "Ferrates [Iron(VI) and Iron(V)] – Environmentally-Friendly Oxidants, Coagulants and Disinfectants"
Invited Seminar, *Instituto Catalana de Recerca I Estudis Avancats, IDEAE, Barcelona, Spain* (2009).
224. "Ferrate (Iron(VI)): Environmental-Friendly Oxidant, Coagulant, and Disinfectant"
Invited Lecture, *The Ukrainian State Chemical Institute, Dnepropetrovsk, Ukraine* (2009).
225. "Reactivity of Oxyiron (VI, V, and VI) with Inorganic and Organic compounds in Aqueous Solution: Pulse Radiolysis studies"
Invited Lecture, *26th Miller Conference in Radiation Chemistry, Keszthely, Hungary, 2009*.
226. "Ferrate(VI)-Oxidant, Disinfectant, and Coagulant"
Invited Seminar, *Institute of Colloidal Chemistry and Environmental Science, Kiev, Ukraine* (2009).
227. "Ferrate (Iron(VI)) – Environmentally-Friendly Oxidant, Coagulant and Disinfectant"
Invited Seminar, *UNESCO-IHE Institute of Water Education, Delft, Netherlands* (2008).
228. "Ferrates: Synthesis, Properties, and Applications in Water Treatment"
Invited Lecture, *M.V. Lomonosov Moscow State University, Moscow, Russia* (2008).
229. "Ferrate(VI) Technology in Treating Emerging Contaminants and Toxins in Water"
Special Seminar, *Chiang Mia University, Chiang Mia, Thailand* (2008).
230. "Chemistry of Higher Oxidation States of Iron (Ferrates)"
Invited Lecture, *Konan University, Shobe, Japan* (2008).
231. "Aqua Ferrate(VI, V, and IV): Properties and their Potential in Remediation Processes"
Invited Lecture, *Kinki University, Iizuka, Japan* (2008).
232. "Ferrate(VI) Technology in Treating Emerging Contaminants and Toxins in Water and Wastewater"
Invited Seminar, *Kyoto University, Kyoto, Japan* (2008).
233. "Ferrate(VI) Technology in Treating Emerging Contaminants and Toxins in Water and Wastewater"

Invited Seminar, *Yamanashi University, Kofu, Japan* (2008).

234. "Ferrate(VI) oxidation of Endocrine Disruptors and Pharmaceuticals: Kinetics and Products Formation,
Invited Lecture, *University of Seoul, Seoul, South Korea* (2008).
235. "Ferrates(VI)-Environmentally-Friendly Oxidants, Disinfectants, and Coagulants) in Water and Wastewater Treatment"
Invited Seminar, *Chulalongkorn University, Bangkok, Thailand* (2007).
236. "Ferrate(VI) Technology in Treating Emerging Contaminants and Toxins in Water and Wastewater"
Invited Seminar, *Eötvös Loránd University, Budapest, Hungary* (2006).
237. "Aqua Ferrate(VI, V, and IV) and their Potential in Remediation Processes"
Invited Seminar, *Institute of Isotopes, Hungarian Academy of Science, Budapest, Hungary* (2006).
238. "Ferrates(Fe(VI) and Fe(V))-Environmentally-Friendly Oxidants, Disinfectants , and Coagulants) in Water and Wastewater Treatment"
Invited Seminar, *Bren School of Environmental Science and Management, University of California-Santa Barbara* (2006).
239. "Ferrates(Fe(VI) and Fe(V))-Environmentally-Friendly Oxidants, Disinfectants , and Coagulants) in Water and Wastewater Treatment"
Seminar, *University of California-Berkeley* (2006).
240. "Ferrates(Fe(VI) and Fe(V))-Environmentally-Friendly Oxidants, Disinfectants , and Coagulants) in Water and Wastewater Treatment"
Seminar, *California Institute of Technology* (2006).
241. "Ferrates(Fe(VI) and Fe(V))-Environmentally-Friendly Oxidants, Disinfectants , and Coagulants) in Water and Wastewater Treatment"
Invited Seminar, *University of Seoul, Korea* (2005).
242. "Ferrates(Fe(VI) and Fe(V))-Environmentally-Friendly Oxidants, Disinfectants , and Coagulants) in Water and Wastewater Treatment"
Seminar, *EAWAG, Swiss Federal Institute of Aquatic Science and Technology, Dübendorf, Switzerland* (2005).
243. "Ferrates(Fe(VI) and Fe(V))-Environmentally-Friendly Oxidants, Disinfectants , and Coagulants) in Water and Wastewater Treatment"
Seminar, *Imperial College, London, United Kingdom*, (2005).
244. "Ferrates (Fe(VI) and Fe(V)): Environmentally-Friendly Oxidants and Disinfectants"

- Invited Seminar**, *Hong Kong Polytechnic University, Hong Kong* (2004).
245. "Chemistry and Applications of High Oxidation States of Iron (Fe(VI), Fe(V), and Fe(IV))"
Invited Seminar, *Budapest University of Science and Technology, Budapest, Hungary* (2003).
 246. "Chemistry and Applications of High-Valent Oxy-Iron Compounds"
Invited Seminar, *Institute of Inorganic Technology, Bratislava, Slovakia* (2003).
 247. "Higher Oxidation States of Iron (Fe(VI), Fe(V), and Fe(IV)): Properties and Applications"
Invited Seminar, *Chemistry Department, Yonsei University, Seoul, Korea* (2003).
 248. "Higher Oxidation States of Iron (Fe(VI), Fe(V), and Fe(IV)): Environmentally-Friendly Oxidants"
Special Seminar *hosted by Thai Chemical Society at Chulalongkorn University, Bangkok, Thailand* (2003).
 249. "Higher Oxidation States of Iron (Fe(VI), Fe(V), and Fe(IV)): Environmentally Friendly Oxidants in Wastewater Treatment"
Invited Seminar, *Institute of Chemical Technology, Prague, Czech Republic* (2002).
 250. "Higher Oxidation States of Iron in Aqueous Solution: Thermodynamics and Kinetics"
Seminar, *J. Heyrovsky Institute of Physical Chemistry, Prague, Czech Republic* (2002).
 251. "Studies of Hypervalent iron (Fe(VI), Fe(V), and Fe(IV) in Aqueous solution"
Seminar, *Max Planck Institute Festkörperforsch, Stuttgart, Germany* (2002).
 252. "Studies of High Oxidation States of Iron (Fe(VI), Fe(V), and Fe(IV)) in Aqueous Solutions"
Invited Seminar, *Eötvös Loránd University, Budapest, Hungary* (2002).
 253. "Ferrates (Fe(VI), Fe(V), and Fe(IV)): Properties and Applications"
Invited Seminar, *Royal Institute of Technology (KTH), Stockholm, Sweden* (2002).
 254. "Reactivities of Ferrates (Fe(VI), Fe(V), and Fe(IV)) with compounds of Environmental and Biological interests"
Invited Seminar, *Pohang University of Science and Technology, Korea* (2002).
 255. "Ferrates (Fe(VI), Fe(V), and Fe(IV)) in Wastewater Treatment"
Invited Seminar, *Research Center for Water Environmental Technology, University of Tokyo, Japan* (2002).
 256. "Reactivities of Ferrates (Fe(VI), Fe(V), and Fe(IV)) with Compounds of Biological

interests”

Invited Seminar, *Kyushu University, Fukuoka, Japan* (2002).

257. “The Chemistry of Higher Oxidation States of Iron (Fe(VI), Fe(V), and Fe(IV))”
Invited Seminar, *Jet Propulsion Laboratory, Pasadena, California* (2001).
258. “Potassium Ferrate(VI): An Environmentally-Friendly Oxidant”
Invited Seminar, *National University of Mexico, Mexico City, Mexico* (2001).
259. “Higher Oxidation State of Iron (Fe(VI), Fe(V), and Fe(IV)): Environmentally Friendly Oxidants”
Invited Seminar, *Chulalongkorn University, Bangkok, Thailand* (2001).
260. “Ferrates (Fe(VI), Fe(V) and Fe(IV)): Alternate Oxidants in Wastewater Treatment”
Invited Seminar, *National University of Singapore, Singapore* (2001).

ORGANIZER-CONFERENCES/SYMPOSIA:

Organizer - Conference “*International Water Association (IWA) Sustainable Natural and Engineered Water Systems Management (SWSM 2023)*”, Bangkok, Thailand (December 13-16, 2023).

International Scientific Committee Member – XVIII World Water Congress, International Water Resources Association, Beijing, China (September 11-15, 2023)

Organizer – Symposium “Women in Science and Engineering (WISE)” at 2023 Fall ACS National Meeting at San Francisco, California (2023).

Organizer – Symposium “Radiation Chemistry, Aquatic Photochemistry, and Advanced Oxidation Processes in Environmental Chemistry in Honor of William J. Cooper” at 2023 Fall ACS National Meeting at San Francisco, California (2023).

Organizer – Symposium “Materials Development to Address Environmental and Sustainability Challenges” at 2023 Fall ACS National Meeting at San Francisco, California (2023).

Organizer – Symposium “Advances in Environmental Chemistry Occurrence, Detection, and Removal of Organic Pollutants in the Environment” at 2023 Fall ACS National Meeting at San Francisco, California (2023).

Organizer – Workshop “*Impacts of Climate Change on Water Resources: Challenges and Needs at Regional and Global Scale*” at 2023 Association of Environmental Engineering and Science Professors (AEESP) Research and Education Conference in Boston, MA (June 20-23, 2023).

Organizer – Symposium “*ACS Awards for Creative Advances in Environmental Science and*

Technology" at 2023 Spring ACS National Meeting at Indianapolis, Indiana (2023).

Organizer – Symposium "*Catalytic, Electrocatalytic & Heterogeneous Advanced Catalytic Technologies for Treatments of Emerging Concern*" at 2023 Spring ACS National Meeting at Indianapolis, Indiana (2023).

Organizer – Symposium "*Advances Made by Early to Mid-Career Researchers in Environmental Science & Engineering*" at 2023 Spring ACS National Meeting at Chicago, Illinois (2022).

Organizer – Symposium "*Greener Strategies in Environmental Sustainability*" at 262nd ACS National Meeting at Chicago, Illinois (2022).

Organizer – Symposium "*Impact of Engineered & Natural Nanomaterials on the Environment: A symposium in Honor of Dr. Michael F. Hochella*" at 262nd ACS National Meeting at Chicago, Illinois (2022).

Organizer – Symposium "*ACS Awards for Creative Advances in Environmental Science and Technology*" at 261st ACS National Meeting at San Diego, California (2022).

Organizer – Symposium "*Women in Science & Engineering*" – A tribute to impactful contributions made to environmental chemistry" at 260th ACS National Meeting at Atlanta, Georgia (2021).

Organizer – Symposium "*Toward Creating a Water-Energy-Food Nexus Community of Practice: Symposium in Honor of Professor Rabi H. Mohtar*" at 260th ACS National Meeting at Atlanta, Georgia (2021).

Organizer – Symposium "*Mössbauer Spectroscopy from Magnetic Nanoarchitectures to Environmental Science: A Symposium in Honor of Dr. Jean-Marc Greneche*" at 260th ACS National Meeting at Atlanta, Georgia (2021).

Organizer – Symposium "*Ecosystems, Water & Food Security in a Changing World: Challenges & Solutions in Arid Regions*" at 260th ACS National Meeting at Atlanta, Georgia (2021).

Organizer – Symposium "*Current Perspectives in Water Reuse & Recycling*" at 260th ACS National Meeting at Atlanta, Georgia (2021).

Organizer – Symposium "*Current Perspectives in Environmental Science*" at 260th ACS National Meeting at Atlanta, Georgia (2021).

Organizer – Symposium "*Advances in Chemical Oxidative Processes for Emerging Contaminants in Water & Wastewater*" at 260th ACS National Meeting at Atlanta, Georgia (2021).

Organizer – Symposium “*Advanced Oxidation Processes: Progress & Challenges*” at 260th ACS National Meeting at Atlanta, Georgia (2021).

Organizer – Symposium “*Green Chemistry and Engineering for a Sustainable Circular Economy*” at International Chemical Congress of Pacific Basin Societies (Pacifichem 2020), Honolulu, Hawaii, USA, December 15-20 (2020).

Organizer – Symposium “*Ferrate and Ferrite in Green Chemical Applications for Environmental Sustainability*” at International Chemical Congress of Pacific Basin Societies (Pacifichem 2020), Hawaii, USA, December 15-20 (2020).

Organizer – Symposium “*Chemistry of Water Reuse Processes toward Water Sustainability*” at 258th ACS National Meeting at San Francisco, California (2019).

Organizer – Symposium “*Chemistry of Water Reuse Processes toward Water Sustainability*” at 258th ACS National Meeting at San Francisco, California (2019).

Organizer - Symposium “*Photocatalytic and Electrochemical Processes: Fundamentals and Applications in Green Energy and Environmental Remediation: A Symposium in Honor of Professor Krishnan Rajeshwar*” at 257th ACS National Meeting at Orlando, Florida (2019).

Co-Chair – *Mediterranean Conference on the Applications of the Mössbauer Effect (MECAME2016) in Honor of Professor Frank Berry*, Zadar, Croatia, 2018.

Organizer - Symposium “*Environmental Behaviors and Health Effects of Pollutants: A Symposium in Honor of Professor Guibin Jiang*” at 256th ACS National Meeting at Boston, Massachusetts (2018).

Organizer – Symposium “*Chemical Reactions at Solid-Water Interfaces of the Natural and Built Environment*”, at 256th ACS National Meeting at Boston, Massachusetts (2018).

Organizer - Symposium “*Shaping Activity through Structure Modification: from Small Molecule to Nanoparticle: A Symposium in Honor of Professor Bing Yan*” at 255th ACS National Meeting at New Orleans, Louisiana (2018).

Co-Chair – *Mediterranean Conference on the Applications of the Mössbauer Effect (MECAME2018) in Honor of Professor Frank Berry*, Zadar, Croatia, 2018.

Organizer - Symposium “*Oxidation Processes, Nanoparticles, and Membranes in Water and Wastewater Treatment in Honor of Professor Jun Ma*” at 253rd ACS National Meeting at San Francisco, Pennsylvania (2017).

Organizer – Session “*Nanoparticles: Formation, Fate, and Toxicity in Aquatic Environment*” at 33rd International Conference of the Society of Environmental Geochemistry and Health (SEGH 2017), Guangzhou, China (2017).

Co-Chair – *Mediterranean Conference on the Applications of the Mössbauer Effect (MECAME2018) in Honor of Professors Rivka Bauminger and Rolfe Herber, Jerusalem, Israel 2017*

Organizer – Symposium “*Formation and Transformation of Atmospheric Aerosols: Air Pollution to Climate Change*” in Honor of Professor Renyi Zhang” at 252nd ACS National Meeting at Philadelphia, Pennsylvania (2016).

Organizer – Symposium “*Greener Pathways to Organic and Nanomaterials: Sustainable Applications of Magnetic Nanocatalysts*” in Honor of Dr. Rajender S. Varma” at 251st ACS National Meeting at San Diego, California (2016).

Co-Chair – *Mediterranean Conference on the Applications of the Mössbauer Effect (MECAME2016) in Honor of Professor Philipp Gütlich, Dubrovnik, Croatia, 2016.*

Organizer – Symposium “*Ferrites and Ferrates: Chemistry and Applications in Sustainable Energy and Environmental Remediation*” at the International Chemical Congress of Pacific Basin Societies 2015, Honolulu, Hawaii (2015).

Organizer – Symposium “*Nuclear Probes in Nanoscale Characterization*” at the International Chemical Congress of Pacific Basin Societies 2015, Honolulu, Hawaii (2015).

Co-Organizer – Symposium “*Emerging Electrochemical Water Remediation Technologies: A symposium in Honor of Professor Enric Brillas and Professor Mehmet A. Oturan*” at 250th ACS National Meeting at Boston, Massachusetts, 2015.

International Advisory Board member - 2015 *International Symposium on Environmental Science and Technology*, Chongqing, China.

Co-Organizer – *Mediterranean Conference on the Applications of the Mössbauer Effect (MECAME2015) in Honor of Professor Svetozar Music, Zadar, Croatia, 2015.*

Co-Organizer – Symposium “*Thermodynamics and Kinetics in Treatment Processes: Past, Present, and Future*” 248th ACS National Meeting at San Francisco, California, 2014.

Co-Organizer – Symposium “*Chemistry and Application of Green Catalysts for Energy Transformation and Emission Control*” 246th ACS National Meeting at Indianapolis, Indiana, 2013.

International Advisory Board member - 2013 *International Symposium on Environmental Science and Technology*, Dalian, China.

Session Chair – Symposium “*Chemistry and Applications of Advanced oxidation processes for removal of Contaminants of Emerging Concern: Chemical oxidation and Free Radicals*” 245th

ACS National Meeting, New Orleans, Louisiana (2013).

Co-Organizer – Symposium “*Interactions of Nanomaterials with Emerging Environmental Contaminants*” 244th ACS National Meeting at Philadelphia, 2012.

Co-Organizer – Symposium “*Nanotechnology and the Environment: Green Technology*” in 243rd ACS National Meeting at San Diego, 2012.

Session Chair – 27th *Miller Conference in Radiation Chemistry*, Tallsberg, Sweden, 2011.

Co-Organizer – “*6th Biannual Nassau Argonne International Mössbauer Symposium*” at Nassau Community College in Garden City, New York, January 13-14, 2011.

International Advisory Board member – *International Conference on Advances in Environmental Chemistry*, Aizwal, India, November 16-18, 2011.

International Advisory Board member - 2011 *International Symposium on Environmental Science and Technology*, Dongguan, Guangdong Province, China.

Special Session Chair – “*Advanced Oxidation Processes- Environmental Applications*” at 2011 *International Symposium of Environmental Science and Technology*, China.

Organizer – Symposium “*Chemical Applications of Mössbauer Spectroscopy*” in 239th ACS National Meeting in San Francisco, California, 2010.

Session Chair – Symposium “*Emerging Environmental Technologies towards a Cleaner and Sustainable Society*” in 2009 ACS Fall National meeting at Washington DC, 2009.

Organizer – Symposium “*Speciation and Kinetics in Natural Waters in honor of Frank Millero*” in 2009 ACS Spring National meeting at Salt Lake City, Utah, 2009.

Organizer - Symposium “*Ferrates: Synthesis, Properties, and Applications in Water and Wastewater Treatment*” in spring 2006 ACS National meeting at San Francisco, California, 2006.

Organizing Committee Member – 3rd International Conference and Exhibition on Ballast Water Management (ICBWM 2006), Singapore, 2006

Session Chair – “*Role of Iron in the Environment*” at the Sustainability’s New Age, Preservation and Planning (SNAP): An International Sustainability Forum in Melbourne, Florida, 2005.

Organizer - International Symposium “*Innovative Ferrate(VI) Technology in Water and Wastewater Treatment*” Prague, Czech Republic, 2004.

Organizing Committee Member – Mediterranean Conference on Chemistry of Aquatic Systems, Reggio Calabria, Italy, 2004

Session Chair – “*Fundamentals and Modelling*” at the 4th International Conference of Conveying and Handling Solids Particles” in Budapest, Hungary, 2003.

Alternate Councilor - Orlando Section, American Chemical Society at 246th Spring National ACS meeting, San Diego, CA, 2001.

Session Chair - “*Specialty Chemicals in the Environment*” symposium (Environmental Chemistry Division) at the Spring 2000 ACS meeting in San Francisco, California, 2000.

Organizer - Symposium “*Thermodynamics and Kinetics in Natural Waters*” in honor of Frank J. Millero in Spring 1999 ACS meeting at Anaheim, California, 1999.

Session Chair - South Texas Environmental Conference, Corpus Christi, Texas, 1996.

POSTDOCTORATE ADVISOR:

Dr. Ria Yngard	2007-2009
Dr. Zhiyong Luo	2009-2010
Dr. George Anquandah	January, 2012 – August, 2012
Dr. Chansik Kim	March 2013-January, 2016
Dr. Radina P. Kralchevska	April 2014-March 2015
Dr. Min Liu	October 2015 - September 2016
Dr. Jashanpreet Singh	September 2015-February, 2017
Dr. Jing Zhang	July, 2016-December, 2016
Dr. Mingbao Feng	February, 2017-Present
Dr. Jiaqui Liu	July, 2017-Present
Dr. Kyriakos Manoli	October, 2019-Present

GRADUATE ADVISOR:

Ph.D. Dissertation (Advisor)

Christopher Vemagiri	Metal Ion-Enhanced Oxidation and Disinfection by Ferrate Marbaniang, 2024 (Fall)
Olatunbosun Adu	Plant Uptake of Per-and Polyfluoroalkyl Substances (PFAS) in Hydroponics 2024 (Fall)
Rui ren Zhou	Novel Ag-Containing Photocatalysts and their Performance Regulation and Applications to Hazard Organic Degradation, 2024 (Co-Chair)
Long Chen	Ferrate(VI), Ferrate(V), and Ferrate(IV) Oxidation of Microcystin-LR, Sulfadiazine, and Flumequine: Oxidized Product, 2017
Nathaniel Adegboyega	Interactions of Ag ⁺ with Fulvic Acids in Aquatic Environment, 2014
Erik Casbeer	Ferrate(VI) Oxidation of Aromatic Amino Acids, 2012
George Anquandah	Oxidative Destruction of Pharmaceuticals by Ferrate(VI), 2011
Ria Yngard	Ferrate(VI) and Ferrate(V) Oxidation of Weak-Acid Dissociable Cyanides,

Nadine Noorhasan	2007 Reactivity of Ferrate(VI) and Ferrate(V) with Glycine and EDTA, 2006
<u>M.S. Thesis (Advisor)</u>	
Joshua Bell	Overlooked Significance of Chromium(V) and Chromium(IV) in Environmental Chemistry and Influence of Peroxyacetic Acid On Chromium in Wastewater, 2022
Beatrice Darko	Investigation of the Interaction between Ferrate(VI) and Natural Organic Matter (NOM), 2013
Long Chen	Permanganate Oxidation of Sulfamethoxazole and Ferrate(VI) Oxidation of Selected Aliphatic Amino Acids, 2013
Fei Liu	Oxidation of Amoxicillin and 6-Aminopenicillic Acid, 2012
Tameka E. Rolle	Exploring the Capacity of a Set of Low Molecular Weight Compounds to form Silver Nanoparticles under Environmentally Relevant Conditions, 2012
Meagan Strouse	Ferrate(VI) Oxidation of Model Compounds of Microcystins, 2012
Thao Hoang	The oxidation of Alginic acid, Benzoic acid and Maltose by ferrate(VI) including a TiO ₂ catalysis study, 2012
Abdullah El Abduly	Oxydesulfurization of Benzothiophene, Dibenzothiophene, and Methylbenzothiophene by Ferrate(VI), 2010
Bhavesh Patel	Reactivity of Ferrate(VI) with Iminodiacetate, Nitriloacetate, and Gly-Gly, 2008
Chenay Benoit	Heterogeneous Photocatalytic Reduction of Fe(VI) in UV-Irradiated Titania Suspensions: Effect of Ammonium Ions, 2005
Santosh K. Mishra	Reactivity of Ferrate(VI) with Sulfamethoxazole and Ibuprofen , 2005
Anthony Zinger	The Interaction of Methionine with the Major Constituents of Natural Waters at Different Ionic Strengths and Temperatures, 2002
Christopher Burnett	Ferrate(VI) Oxidation of Thiocyanate, Cyanide, and Copper(I) Cyanide with Emphasis on Gold Mill Wastewater, 2001
Fabien Casteras	Dissociation Constants of Cysteine in Natural Water Media, 2001
Steven Hicks	Characterization and Degradation of Selected Petroleum Hydrocarbons following an Oil Spill into a South Texas Coastal Stream, 2000
Wayne Rivera	Degradation of Pollutants by Advanced Oxidation Processes, 1999
Kurtis Rhudy	Assessment of the Physical and Chemical Water Quality Parameters Pertaining to Brown Tide Bloom in Baffin Bay, Texas, 1999
Brandon O'Brien	Ferrate(VI) oxidation of Potassium Ferrocyanide, Potassium Ferricyanide, and Zinc Cyanide, 1998
Shari Hollyfield	Contamination in Oso Bay, Texas Sediments and Oxidation of Aniline by Ferrate(VI), 1996
Jeremy Smith	Ferrate(VI) Oxidation of Cyanide and Sulfide in Wastewater Effluents, 1996

Dissertation/Thesis Examiner (Foreign Universities)

Li Zhengtao	Fabrication of Bbioinspired Super-Hnanofibrous Membrane for Oil-Water
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	Separation and Directional Water Transportation, Nanyang Technological University, 2019
Yingying Sun	Iron-Mediated Oxidant Production under Conditions Relevant to Both Natural Aquatic and Neurological Environments, University of New South Wales, Sydney, Australia, 2017
Qin Detao	Novel Nanocomposite Forward Osmosis Membrane for Treating Highly Saline and Oily Wastewater with Low Fouling, High Water Flux and High Selectivity, Nanyang Technological University, 2016
Manish Gupta	Synthesis of Some Metal Ferrites by Chemical Routes, Guru Nanak Dev University, Amritsar, Punjab, India, 2016
Liu Lei	TiO ₂ Nanocomposites Photocatalysts for Water Disinfection and Decontamination under Solar Irradiation, Nanyang Technological University, 2013
Bai Hongwei	Hierarchically Structured TiO ₂ Nanorod Spheres for Clean Water and Energy Production, Nanyang Technological University, 2013
Guowei Xing	Reactions of Cu(I) and Cu(II) with H ₂ O ₂ in Natural Waters: Kinetics, Mechanism and the Generation of Reactive Oxidizing Intermediates, University of New South Wales, Sydney, Australia, 2012
Manik Gupta	Synthesis of Nanosized Ferrites by Solution Combustion Method and Investigation of their Magnetic and Electrical Properties, Guru Nanak Dev University, Amritsar, Punjab, India, 2012
Xu Shiping	Copper Incorporated Titanium Dioxide Photocatalyst for Hydrogen Production, Nanyang Technological University, 2011
Ana Judith Rodriguez	Geochemistry of Major and Trace Elements in Coastal Sediments. The Tropical River-Estuary System of Marabasco (Mexico) and the Temperate System of the Galician Rias (Spain), Institute of Marine Investigation, Vigo, Spain, 2008
Li Cong	Mechanism and Performance of Ferrate in Drinking Water Treatment, Hong Kong Polytechnic University, Hong Kong, 2005

Ph.D. Dissertation (Committee Member)

Clancy Collom	Application of Bioanalytical Chemistry of Mixture Toxicology Modeling, 2024 (Baylor University)
Jieming Yuan	Single Atom Catalysts on Biochar for the Removal of Organic Contaminants in water, 2023
Yinghao Wen	Advanced Oxidation and Reduction Processes for the Removal of Recalcitrant Pollutants in Water, 2022
Xiaoxuan Wang	Plant Uptake and Impact of Engineered Metallic Nanoparticles in Soil Plant Systems, 2022
Alexandra Folcik	Electron Beam Technology for the Removal of the Cyanotoxin, Microcystin-LR, and the Cyanobacteria, Microcystis Aeruginosa in Contaminated Water, 2021
Rebecca Owens	Effect of Urbanization on Morphology of Rivers in Texas, 2020
Kyriakos Manoli	Enhanced Oxidation of Organic Contaminants by Ferrate: Acid-activated and Silica gel-enhanced Ferrate(VI) Oxidation Processes, 2017

Nelson Akaighe	Fate of Silver Nanoparticles in Natural Environment, 2012
Yannick Ouedraogo	Synthesis and Computational Studies of Photoreactive Caged Molecules, 2012
Vivek Patel	Design and Synthesis of 5-Oxo-ETE Receptor Antagonist and Total Synthesis of Isoprostane D2, 2010
Pranav Patel	Design and Synthesis of Affinity Chromatography Ligands for the Isolation of 5-HEDH Enzyme: Synthesis of Prostanoids and their Identification in Human Urine, 2008
Chih-Tsung Chang	Synthesis and Identification of EPA-derived Isoprostanes. Discover of DHA-derived Neurofuranes in <i>Vivo</i> , 2008
Shiela M.H. Jacobo	Prostanoids: Synthesis, Identification and Involvement in Biological Systems, 2005
Carl F. Richardson	The influence of Biologically Related Additives on the Mineralization Properties of Hydroxyapatite, SUNY at Buffalo, New York, 1991

M.S. Thesis (Committee Member)

Yunkyoung Han	Degradation of Recalcitrant Contaminants by Single Atom Catalysts
Amanda Tague	Characterization of Watershed, 2023
Manasa Sadhasivan	Kinetic Modelling to Probe the Advanced Oxidation Processes in a Fe(II)-PAA-ABTS, a Fe(VI)-PAA, and a Fe(VI)-Amine Systems, 2021 (Georgia Institute of Technology)
Corinne Kowald	Electron Beam Technology for the Destruction of Perfluorooctanoic Acid and perfluorooctane Sulfonate in Soil and Water Samples, 2020
Shreyas Mirji	An Improved Unsteady Maxwell-Stefan Model for Predicting Spacecraft Propellant Evaporation in Microgravity, 2013
Andrea Rios	Dewatering of Sludge by Sodium Ferrate, 2004
Mareva Chanson	Factors affecting Turbidity and Total Suspended Solids and the Relationship between these Parameters in Crane Creek, Melbourne, Florida, 2003.
Sasan Hosein	Investigations for the Remediation of Corrosion in the Florida Institute of Technology Wave Tank, 2002
Michelle McElvaine	Mineral Controls of Iron and Manganese Concentrations in the Interstitial Waters of Gulf of Mexico Sediments, 2001
Ketan Vyas	Phosphate Removal by Ion Exchange Resin, 2001
Khalid Alhooshani	Selenium Analysis by Gas Chromatography/Mass Spectrometry, 2001
Nichlos Ricano	Water Quality Parameters in the Coastal Environment of Corpus Christi, 1999
Vinod Dasyam	Interactive Tool for Computing Total Alkalinity and Total Carbon Dioxide in Natural Waters, 1998
Shekhar Kontoru	Characterization of Potential Treatment Strategies of Effluent Water from Intensive Shrimp Farms, 1996
Marco Lopez	Characterization and preliminary quantification of effluent load from three coastal aquaculture facilities in South Texas, 1996

M.S. Nonthesis (Advisor)

M.S. Nonthesis (Committee Member)

Kiran Agarwal - 1998
 Scott Rhodes - 1998
 Olin Moore - 1998
 Bonnie Hardie - 1996
 Scott Peters - 1996
 Kathy Camponova - 1996

Sylvia Scott - 1999
 Cameron Isaacs - 1999
 Robyn McGilloway - 1997
 Ana Liza Gallegos - 1997
 Lon Langley - 1995
 John Bloom - 1995
 Sherri Hatch - 1995

Bruce Jonason - 1995
 Royce Kemp - 1994
 Cornado Gallegos - 1994
 Tim Pritchard - 1994
 Diane Breckenridge - 1994
 Judy Roberson - 1993

COLLABORATIONS:

Ching-Hua Huang
 Sylwia Ptasińska
 Frank J. Millero
 George W. Luther III
 Piero Gardinali
 Kevin O'Shea
 Mary Sohn
 Dionysios D. Dionysiou
 Zuzana Zajickova
 Jason Parson
 Christie Sayes
 Ajay K. Ray
 Mita Ray
 Thangarasu Pandiyan
 Ana Judith Rodríguez
 José Roberto Vega-Baudrit
 Vijayendra Garg
 Maurizio Pettine
 Concetta De Stefano
 Jia-Qian Jiang
 Nigel Graham
 Enric Brillas
 Mehmet Oturan
 Karel Bouzek
 Radek Zboril
 Jan Hives
 Georgy Pokol
 Zoltan Homonnay
 Khemarath Osathaphan
 Rajasekhar Balasubramanian
 X.-Z. Li
 Hyunook Kim
 Shiro Kubuki
 Tetsuaki Nishida
 Ruey-An Doong

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VISITING SCHOLARS AT TAMU:

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Wiliam Trujillo Herrera	National University of San Marcos, Peru (2015)
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Camila Caroline Zeni Silva	State University of New York, Plattsburgh, New York (2015)
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	Hyunook Kim University of Seoul, Republic of Korea (2016)
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VISITING SCHOLARS AT FLORIA INSTITUTE OF TECHNOLOGY:

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Goestar Klingelhofer	University of Mainz, Germany (2011)
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Libor Machala	Palacky University, Olomouc, Czech Republic (2012)
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UNDERGRADUATE RESEARCH ADVISOR:

Shavi Tolan (Undergraduate Student) – Sept 2011-Dec 2013 – Undergraduate credit hours- 10 hrs/wk
 Monica Moreno Munoz (Undergraduate Student) – Fall 2013 –Undergraduate Credits hours- 5 hrs/wk
 Maria Huba (Undergraduate Student) – Fall 2013 –Undergraduate Credits hours- 5 hrs/wk
 Aalekhyat Tenali (High School student) – Summer 2013 – FIT Summer Program
 Bob Merrill (High School Student) – Summer 2002– FIT Summer Program
 Mathew Brunstein (High School Student) – Summer 2002– FIT Summer Program

REVIEWER For JOURNALS:

Journal of Physical Chemistry
Environmental Science and Technology
Inorganic Chemistry
Industrial & Engineering Chemistry Res.
ACS Applied Materials and Interfaces
Chemical Reviews
Water Research
Electrochimica Acta
Chemosphere
Hydrobiologia

Journal of the American Chemical Society
Environmental Science and Technology Letter
Langmuir
Journal of Chemical Engineering Data
Analytical Chemistry
ACS Sustainable Chemistry & Engineering
Canadian Journal of Chemistry
Journal of the Applied Electrochemistry
Journal of Solution Chemistry
Environmental Engineering Science

<i>Journal of Environmental Management</i>	<i>Journal of Colloid and Interface Science</i>
<i>The Science of Total Environment</i>	<i>Colloids and Surfaces A</i>
<i>Electrochemistry Communications</i>	<i>Journal of Material Chemistry</i>
<i>Fluid Phase Equilibria</i>	<i>Journal of Biological Inorganic Chemistry</i>
<i>Journal of Molecular Catalysis A Chemical</i>	<i>Process Biochemistry</i>
<i>Analytica Chimica Acta</i>	<i>Catalysis Today</i>
<i>Fresenius Environmental Bulletin</i>	<i>Journal of Environmental Health and Science</i>
<i>Polish Journal of Environmental Studies</i>	<i>Journal of Hazardous Materials</i>
<i>Bulletin of Chemical Society of Japan</i>	<i>Chemical Papers</i>
<i>Surface and Coatings Technology</i>	<i>Critical Rev. Environmental Science & Engineering</i>
<i>Desalination</i>	<i>Hyperfine Interactions</i>
<i>Environmental Technology</i>	<i>Ozone Science and Engineering</i>
<i>Journal of Biomedical Materials Research</i>	<i>Journal of Environmental Science and Engineering</i>
<i>Separation & Purification Technology</i>	<i>Aquatic Geochemistry</i>
<i>Environmental Pollution</i>	<i>Toxicon</i>
<i>Environmental Chemistry Letters</i>	<i>Chemical Engineering Science</i>
<i>Colloids and Surfaces B</i>	<i>Chemical Sciences</i>
<i>Canadian Journal of Microbiology</i>	<i>Materials Research Bulletin</i>
<i>Applied Catalysis: Environmental</i>	<i>Journal of Sulfur Chemistry</i>
<i>Colloids and Surfaces B</i>	<i>Journal of Environmental Science and Health Part A</i>
<i>Physics and Chemistry of the Earth</i>	<i>Desalination and Water Treatment</i>
<i>Journal of Solid State Chemistry</i>	<i>Ecotoxicology and Environmental Safety</i>
<i>Journal of Applied Phycology</i>	<i>Journal of Advanced Oxidation Processes</i>
<i>Thermochimica Acta</i>	<i>Marine Chemistry</i>
<i>Chemical Engineering Journal</i>	<i>Journal of Environmental Engineering</i>
<i>Toxicological and Environmental Chemistry</i>	<i>ACS Nano</i>
<i>International Journal of Chemical Kinetics</i>	<i>Journal of Catalysis</i>
<i>African Journal of Microbiology</i>	<i>Green Chemistry</i>
<i>Marine Pollution Bulletin</i>	<i>Journal of Physical Organic Chemistry\</i>
<i>Inorganica Chimica Acta</i>	<i>Environmental Analytical Chemistry</i>
<i>Molecules</i>	<i>Metals</i>
<i>Polyhedron</i>	<i>Journal of Radioanalytical and Nuclear Chemistry</i>
<i>Ionics</i>	<i>Scientific Reports</i>
<i>American Journal of Biotechnology and</i>	<i>European Journal of Inorganic Chemistry</i>
<i>Medical Research</i>	<i>Journal of Applied Solution Chemistry and Modeling</i>
<i>Journal of Material Chemistry B</i>	<i>Advanced Sustainable Systems</i>
<i>ACS Chemical Neuroscience</i>	<i>Canadian Journal of Chemical Engineering</i>
<i>Current Inorganic Chemistry</i>	<i>Toxicology Research</i>
<i>Current Opinion in Environmental</i>	<i>Nature Sustainability: Review</i>
<i>Science and Health</i>	<i>Chinese Journal of Chemical Engineering</i>
<i>Advanced Materials</i>	<i>Toxicology Research</i>
<i>Nature Communications</i>	<i>ACS Earth and Space Chemistry</i>
<i>Journal of Nanoscience and</i>	<i>Journal of Environmental Quality</i>
<i>Nanotechnology</i>	<i>Nano-Micro Letters</i>
<i>Frontier in Environmental Science &</i>	<i>Canadian Journal of Chemical Engineering</i>
<i>Technologies</i>	<i>ACS ES&T Water</i>

