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EDUCATION

1992-1996	POST-DOCTORAL FELLOW	UNIVERSITY OF CALIFORNIA BERKELEY
	<i>Lawrence Berkeley Laboratory, Materials Sciences Division, Surface Science and Catalysis, and Department of Chemistry; Advisor: Professor G.A. Somorjai</i>	
1986-1989	Ph.D. CHEMICAL ENGINEERING	STANFORD UNIVERSITY
	<i>(Minor in Chemistry) Thesis Title: "The Effect of Carbon and Oxygen on the Surface Chemistry of Tungsten Carbides" Thesis Advisor: Professor Michel Boudart</i>	
1985-1986	M.S. CHEMICAL ENGINEERING	STANFORD UNIVERSITY
1983-1984	M.S. CHEMISTRY	INSTITUTO MILITAR DE ENGENHARIA
	<i>Thesis Title: "Study of the Preparation and Catalytic Properties of Supported Ir-Sn" Thesis Advisor: Professor Yiu Lau Lam</i>	
1978-1982	B.S. CHEMICAL ENGINEERING	INSTITUTO MILITAR DE ENGENHARIA

EXPERIENCE

2023-Present	CO-DIRECTOR, Purdue Engineering Initiative on Leading Energy-Transition Advances and Pathways to Sustainability (LEAPS), <i>Purdue University, West Lafayette, IN</i>	
2023-Present	W. NICHOLAS AND ELIZABETH H. DELGASS DISTINGUISHED PROFESSOR IN CHEMICAL ENGINEERING, <i>Purdue University, West Lafayette, IN</i>	
2017-Present	DIRECTOR, NSF Engineering Research Center for Innovative and Strategic Transformation of Alkane Resources (CISTAR), <i>Purdue University, West Lafayette, IN</i>	
2013-2023	R. NORRIS AND ELEANOR SHREVE PROFESSOR OF CHEMICAL ENGINEERING, <i>Department of Chemical Engineering, Purdue University, West Lafayette, IN</i>	
2006-2013	PROFESSOR, <i>Department of Chemical Engineering, Purdue University, West Lafayette, IN</i>	
2003-2006	ASSOCIATE PROFESSOR, <i>Department of Chemical Engineering, Purdue University, West Lafayette, IN</i>	
2000-2003	ASSOCIATE PROFESSOR, <i>Department of Chemical Engineering, Worcester Polytechnic Institute, Worcester, MA</i>	
1996-2000	ASSISTANT PROFESSOR, <i>Department of Chemical Engineering, Worcester Polytechnic Institute, Worcester, MA</i>	
1989 -1992	RESEARCH FELLOW, <i>Catalytica Inc., Mountain View, CA</i>	
1985-1989	RESEARCH ASSISTANT, <i>Department of Chemical Engineering, Stanford University, Stanford, CA</i>	
1982-1984	RESEARCH ASSISTANT, <i>Department of Chemistry, Instituto Militar de Engenharia, Rio de Janeiro, Brazil</i>	
1984	INTERN, <i>Research Center of the Brazilian Petroleum Company (Petrobras), Rio de Janeiro, Brazil</i>	

1979-1982 UNDERGRADUATE RESEARCH, *Department of Chemistry, Instituto Militar de Engenharia, Rio de Janeiro, Brazil*

AWARDS AND RECOGNITIONS

- 2023 INAUGURAL L.K. DORAISWAMY GRADUATE SEMINAR SERIES, Iowa State University, Department of Chemical and Biological Engineering, Ames, Iowa, 2023
- 2023 EXCEPTIONAL ACHIEVEMENT AWARD, *American Chemical Society, Division of Catalysis Science and Technology*
- 2023 FELLOW, *American Association for the Advancement of Science*
- 2022 SCIENCE AND TECHNOLOGY PRIZE FOR CONTRIBUTIONS TO BUILDING BRIDGES BETWEEN BRAZIL AND THE U.S., *Brazilian Embassy in the U.S.*
- 2022 SENIOR RESEARCH FELLOW, *Krach Institute for Tech Diplomacy at Purdue*
- 2020 FACULTY RESEARCH AWARD, *Sigma Xi Purdue Chapter*
- 2019 CATALYSIS CLUB OF PHILADELPHIA AWARD, *Catalysis Club of Philadelphia*
- 2019 GIUSEPPE PARRAVANO MEMORIAL AWARD FOR EXCELLENCE IN CATALYSIS RESEARCH, *Michigan Catalysis Society*
- 2015 VISITING PROFESSOR, *Departement Chemie und Angewandte Biowissenschaften, ETH Swiss Federal Institute of Technology, Zürich, March 1st to May 31st, 2015*
- 2015 HERMAN PINES AWARD, *Catalysis Club of Chicago*
- 2014 FELLOW, *American Institute of Chemical Engineers*
- 2014 PRESIDENTIAL SAFETY AWARD TO THE CHEMICAL ENGINEERING SAFETY COMMITTEE, FACULTY REPRESENTATIVE, *Purdue University*
- 2014 TEAM AWARD, *Purdue College of Agriculture*
- 2014 FACULTY AWARD OF EXCELLENCE ON RESEARCH, *Purdue College of Engineering*
- 2012 HENRY J. ALBERT AWARD, *International Precious Metals Institute*
- 2010 LANGMUIR: INVITED CO-EDITOR, *Special issue in honor of Gabor A. Somorjai (Seong H. Kim, Fabio H. Ribeiro, Robert M. Rioux)*
- 2006 – 2011 FACULTY SCHOLAR, *Purdue University*
- 2007 TEAM EXCELLENCE AWARD, *Purdue University, College of Engineering*
- 2005 EXCELLENCE IN CATALYSIS AWARD, *Catalysis Society of Metropolitan New York*
- 2003 JOURNAL OF PHYSICAL CHEMISTRY: INVITED CO-EDITOR, *Special issue in honor of Michel Boudart*
- 2001 VISITING ASSOCIATE PROFESSOR, *University of Poitiers, Laboratoire de Catalyse en Chimie Organique, Poitiers, France, June 15 to July 15, 2001*
- 1997 CAREER AWARD, *National Science Foundation*

STUDENTS ADVISED

- 48 PhD Students
- 7 Masters Students
- 14 Postdoctoral Associates

PRESENTATIONS AND ORGANIZED SESSIONS AND MEETINGS

- 200 Presentations in national and international meetings
 - Organized 21 sessions including the American Institute of Chemical Engineers (7) and American Chemical Society (5) –
- 2019 12TH NATURAL GAS CONVERSION SYMPOSIUM, *Chair*
- 2015, 2017, 2019 TELLURIDE SCIENCE RESEARCH CENTER, *Co-Chair*
- 2016 GORDON RESEARCH CONFERENCE ON CATALYSIS, *Co-Chair*

2018	GORDON RESEARCH CONFERENCE ON CATALYSIS, <i>Chair</i>
2016	INTERNATIONAL SYMPOSIUM ON CHEMICAL REACTION ENGINEERING - ISCRE 24, <i>Scientific Committee</i>
2011	BRAZILIAN CONFERENCE ON BIOENERGY SCIENCE AND TECHNOLOGY, <i>Program Committee</i>
2005	NORTH AMERICAN MEETING OF THE CATALYSIS SOCIETY, INTERNATIONAL WORKSHOP ON CATALYTIC COMBUSTION, <i>Scientific Committee</i>

SERVICE

2013-2025	NORTH AMERICAN CATALYSIS SOCIETY, <i>Director-at-Large</i>
2020	27 TH NORTH AMERICAN MEETING OF THE CATALYSIS SOCIETY, <i>Fundraising Committee</i>
2019	17 TH INTERNATIONAL CONGRESS ON CATALYSIS, <i>Sponsorship Committee</i>
2011	22 ND NORTH AMERICAN MEETING OF THE CATALYSIS SOCIETY, <i>Co-Chair of the Kokes Award Committee</i>
2010-2018	JOURNAL OF CATALYSIS, <i>Editor</i>
2000-2012	APPLIED CATALYSIS B: ENVIRONMENTAL, <i>Editorial Board</i>
2000-2012	CATALYSIS LETTERS, <i>Editorial Board and Scientific Advisory Board</i>
2010-2011	CATALYSIS AND REACTION ENGINEERING DIVISION AICHE, <i>Chair</i>
2009	CATALYSIS AND REACTION ENGINEERING DIVISION AICHE, <i>Vice-Chair</i>
2005-2008	CATALYSIS AND REACTION ENGINEERING DIVISION AICHE, <i>Director</i>
1997-1999	NEW ENGLAND CATALYSIS SOCIETY, <i>President</i>
1996-2002	NEW ENGLAND CATALYSIS SOCIETY, <i>Hosted Semiannual Meetings</i>

MEMBERSHIP IN PROFESSIONAL SOCIETIES

- American Association for the Advancement of Science (AAAS)
- American Chemical Society (ACS)
- American Institute of Chemical Engineers (AIChE)
- International Precious Metals Institute (IPMI)
- North American Catalysis Society (NACS)
- Society of Petroleum Engineers (SPE)

CONSULTING

2005-2017	CUMMINS
2015	DOW CHEMICAL
2012-2015	SWIFT FUELS
2008	BP

PUBLICATIONS

BOOKS

1. "Solution of Ordinary Differential Equations by the Collocation Method", F.H. Ribeiro, J.G. Silva, and R. Sampaio, IME Press, Rio de Janeiro, 1982.

SELECTED REFEREED PAPERS (Total 17,765 citations – 74 H-Index Google Scholar)

18. "Turnover Rate and Kinetic Mechanism for the Reaction of Hydrodechlorination of 1,1-dichlorotetrafluoroethane (CF₃-CFCl₂) over a Polycrystalline Pd Foil" F. H. Ribeiro, C.A. Gerken, G. A. Somorjai, C. S. Kellner, G.W. Coulston, L. E. Manzer, and L. Abrams, *Catalysis Letters*, 45 (3-4), 149-153, 1997.
19. "Nanometer Size Platinum Particle Arrays: Catalytic and Surface Chemical Properties" P.W. Jacobs, S.J. Wind, F. H. Ribeiro, and G.A. Somorjai, *Surface Science*, 372 (1-3), L249-L253, 1997.
20. "The Effect of Sn on the Reactions of n-Hexane and Cyclohexane over Polycrystalline Pt Foils" T. Fujikawa, F.H. Ribeiro, and G.A. Somorjai, *Journal of Catalysis* 178, 58-65, 1998.
31. "Surface Area Increase on Pd foils After Oxidation in Excess Methane", R. S. Monteiro, D. Zemlyanov, J. M. Storey, and F. H. Ribeiro, *Journal of Catalysis*, 201, 37-45, 2001.
37. "Increase of Pd Surface Area by Treatment in Dioxygen" J. Han, G. Zhu, D. Zemlyanov, and F.H. Ribeiro, *Journal of Catalysis*, 225 (1), 7-15, 2004.
38. "Coverage of Palladium by Silicon Oxide during Reduction in H₂ and Complete Oxidation of Methane", Guanghui Zhu, Ken-ichiro Fujimoto, Dmitri Yu. Zemlyanov, Abhaya K. Datye, Fabio H. Ribeiro, *Journal of Catalysis*, 225 (1), 170-178, 2004.
39. "The Turnover Rate for the Catalytic Combustion of Methane over Palladium is not Sensitive to the Structure of the Catalyst", Guanghui Zhu, Jinyi Han, Dmitri Y. Zemlyanov, Fabio H. Ribeiro, *Journal of the American Chemical Society*, 126, 9896-9897, 2004.
40. "Temperature Dependence of the Reaction Kinetics for the Complete Oxidation of Methane on Palladium and Palladium Oxide", Guanghui Zhu, Jinyi Han, Dmitri Yu. Zemlyanov, Fabio H. Ribeiro, *Journal of Physical Chemistry B*, 109, 2331-2337, 2005.
41. "NO₂ inhibits the catalytic reaction of NO and O₂ over Pt", S.S. Mulla, N. Chen, W. N. Delgass, W. S. Epling, F. H. Ribeiro, *Catalysis Letters*, 100, 267-270, 2005.
43. "Interaction of O₂ with Pd Single Crystals in the range 1-150 Torr: Oxygen Dissolution and Reaction" Jinyi Han, Dmitry Y. Zemlyanov, and Fabio H. Ribeiro, *Surface Science*, 600, 2752-2761, 2006.
44. "Interaction of O₂ with Pd Single Crystals in the range 1-150 Torr: Surface Morphology Transformations" Jinyi Han, Dmitry Y. Zemlyanov, and Fabio H. Ribeiro, *Surface Science*, 600, 2730-2744, 2006.
45. "Catalytic Combustion of Methane on Palladium Single Crystals", Jinyi Han, Dmitry Y. Zemlyanov and Fabio H. Ribeiro, *Catalysis Today*, 117, 506-513, 2006.
46. "Reaction of NO and O₂ to NO₂ on Pt: Kinetics and Catalyst Deactivation", S. S. Mulla, N. Chen, L. Cumarantunge, G. E. Blau, D. Y. Zemlyanov, W. N. Delgass, W. S. Epling, F. H. Ribeiro, *Journal of Catalysis*, 241, 389-399, 2006.
48. "Ammonia is a hydrogen carrier in the regeneration of Pt/BaO/Al₂O₃ NO_x traps with H₂", L. Cumarantunge, S. S. Mulla, A. Yezerets, N. W. Currier, W. N. Delgass, F. H. Ribeiro, *Journal of Catalysis*, 246, 29-34, 2007.
67. "Metallic Corner Atoms in Gold Clusters Supported on Rutile are the Dominant Active Site during Water-Gas Shift Catalysis", W. Damion Williams, Mayank Shekhar, Wen-Sheng Lee, Vincent F. Kispersky, W. Nicholas Delgass, Fabio H. Ribeiro, Seung Min Kim, Eric A. Stach, Jeffrey T. Miller, Lawrence F. Allard, *Journal of the American Chemical Society*, 132, 14018-14020, 2010.
73. "Low Absorption Vitreous Carbon Reactors for Operando XAS: A Case Study on Cu/Zeolites for Selective Catalytic Reduction of NO_x by NH₃", Vincent F. Kispersky, A. Jeremy Kropf, Fabio H. Ribeiro, Jeffrey T. Miller, *Physical Chemistry Chemical Physics*, 14(7), 2229-2238, 2012.
77. "Determination of the Au active site and surface active species via operando transmission FTIR and isotopic transient experiments on 2.3 wt% Au/TiO₂ for the WGS reaction", Jun Wang, Vincent F. Kispersky, W. Nicholas Delgass, Fabio H. Ribeiro, *Journal of Catalysis*, 289, 171-178, 2012.

79. “Counting Au Catalytic Sites for the Water-Gas Shift Reaction”, Mayank Shekhar, Jun Wang, Wen-Sheng Lee, M. Cem Akatay, Eric A. Stach, W. Nicholas Delgass, Fabio H. Ribeiro, *Journal of Catalysis*, 293, 94–102, 2012.
95. “Identification of the Active Cu Site in Standard Selective Catalytic Reduction with Ammonia on Cu-SSZ-13”, Shane A. Bates, Anuj A. Verma, Christopher Paolucci, Atish A. Parekh, Trunojoyo Anggara, Aleksey Yezerets, William F. Schneider, Jeffrey T. Miller, W. Nicholas Delgass, Fabio H. Ribeiro, *Journal of Catalysis*, 312, 87–97, 2014.
96. “NO Oxidation: A Probe Reaction on Cu-SSZ-13”, Anuj A. Verma, Shane A. Bates, Trunojoyo Anggara, Christopher Paolucci, Atish A. Parekh, Krishna Kamasamudram, Aleksey Yezerets, Jeffrey T. Miller, W. Nicholas Delgass, William F. Schneider and Fabio H. Ribeiro, *Journal of Catalysis*, 312, 179–190, 2014.
97. “Gas mixing system for imaging of Nanomaterials under Dynamic Environments by Environmental Transmission Electron Microscopy”, M. Cem Akatay, Yury Zvinevich, Fabio H. Ribeiro, Eric A. Stach, *Review of Scientific Instruments*, 85, 033704, 2014.
98. “Gas-Phase Epoxidation of Propylene in the Presence of H₂ and O₂ over Small Gold Ensembles in Uncalcined TS-1”, Wen-Sheng Lee, M. Cem Akatay, Eric A. Stach, Fabio H. Ribeiro and W. Nicholas Delgass, *Journal of Catalysis*, 313, 104–112, 2014.
124. “Catalysis in a Cage: Condition-Dependent Speciation and Dynamics of Exchanged Cu Cations in SSZ-13 Zeolites”, Christopher Paolucci, Atish A. Parekh, Ishant Khurana, John R. Di Iorio, Hui Li, Jonatan Albarracin, Arthur Shih, Trunojoyo Anggara, W. Nicholas Delgass, Jeffrey T. Miller, Fabio H. Ribeiro, Rajamani Gounder, and William F. Schneider, *Journal of the American Chemical Society*, 138 (18), 6028–6048, 2016.
129. “Fundamental Principles of Laboratory Fixed Bed Reactor Design”, Daniel Hickman, John Degenstein, Fabio Ribeiro, *Current Opinion in Chemical Engineering*, 13, 1–9, 2016.
130. “A Transmission Infrared Cell Design for Temperature-Controlled Adsorption and Reactivity Studies on Heterogeneous Catalysts”, Viktor J. Cybulskis, James W. Harris, Yury Zvinevich, Fabio H. Ribeiro, Rajamani Gounder, *Review of Scientific Instruments*, 87, 103101, 2016.
132. “High-Pressure Vapor-Phase Hydrodeoxygenation of Lignin-Derived Oxygenates to Hydrocarbons by a PtMo Bimetallic Catalyst: Product Selectivity, Reaction Pathway, and Structural Characterization”, Sara L. Yohe, Harshavardhan Choudhari, Dhairya D. Mehta, Paul J. Dietrich, Michael D. Detwiler, Cem M. Akatay, Eric A. Stach, Jeffrey T. Miller, W. Nicholas Delgass, Rakesh Agrawal, and Fabio H. Ribeiro, *Journal of Catalysis*, 344, 535–552, 2016.
141. “Dynamic Multinuclear Sites Formed by Mobilizing Single Atoms: A New Concept in “Heterogeneous” Catalysis”, Christopher Paolucci, Ishant Khurana, Atish A. Parekh, Sichi Li, Arthur J. Shih, Hui Li, John R. Di Iorio, Jonatan D. Albarracin-Caballero, Aleksey Yezerets, Jeffrey T. Miller, W. Nicholas Delgass, Fabio H. Ribeiro, William F. Schneider, Rajamani Gounder, *Science*, 357, 898–903, 2017.
144. “Propylene oxide inhibits propylene epoxidation over Au/TS-1”, James W. Harris, Jeremy Arvay, Garrett Mitchell, W. Nicholas Delgass, Fabio H. Ribeiro, *Journal of Catalysis*, 365, 105–114, 2018.
156. “Consequences of product inhibition in the quantification of kinetic Parameters”, James W. Harris, Anuj A. Verma, Jeremy W. Arvay, Arthur J. Shih, W. Nicholas Delgass, Fabio H. Ribeiro, *Journal of Catalysis*, 389, 468–475, 2020.
162. “Effects of Ethene Pressure on the Deactivation of Ni-Zeolites During Ethene Oligomerization at Sub-ambient Temperatures”, Richard Caulkins, Ravi Joshi, Rajamani Gounder, Fabio H. Ribeiro, *ChemCatChem*, 13, doi.org/10.1002/cctc.202101478, 2021.
163. “Water-Gas Shift Reaction over Supported Au Nanoparticles”, Mayank Shekhar, Wen-Sheng Lee, M. Cem Akatay, Leonardo Maciel, Wenjie Tang, Jeffrey T. Miller, Eric A. Stach, Matthew Neurock, W. Nicholas Delgass, and Fabio H. Ribeiro, *Journal of Catalysis*, 405, 475–488, 2022.
165. “Kinetics of Propylene Epoxidation over Extracrystalline Gold Active Sites on Au/TS-1 Catalysts”, Jeremy W. Arvay, Wei Hong, Christina Li, W. Nicholas Delgass, Fabio H. Ribeiro, and James W. Harris, *ACS Catalysis*, 12 (16), 10147–10160, 2022.