

CURRICULUM VITAE

Enrique Iglesia

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BIRTH DATE: August 27, 1954, Havana, Cuba

EDUCATION: Ph.D., Chemical Engineering, 1982; Stanford University

(Advisor: Professor Michel Boudart)

Dissertation: "Catalytic and Temperature-Programmed Decomposition of Formic Acid on Copper, Nickel, and Copper-Nickel Alloys"

Master of Science, Chemical Engineering, 1979; Stanford University

Bachelor of Science, Chemical Engineering, 1977; Princeton University
summa cum laude (Highest ranking graduate in School of Engineering and Applied Sciences) Thesis: "*The Permeation of Hydrogen Isotopes through Stainless Steels*"

PROFESSIONAL EXPERIENCE:

Theodore Vermeulen Chair in Chemical Engineering (2009-date)

Chancellor Professor (2006-2009)

Professor of Chemical Engineering (1993-date)

Director, Berkeley Catalysis Center (2006-2015)

College of Chemistry, University of California at Berkeley

Chemical Sciences Division, E.O. Lawrence Berkeley National Laboratory

U.S. Department of Energy; Faculty Senior Scientist (1993-date)

Exxon Research and Engineering Co., Corporate Research Laboratories (1982-1993):

Research Associate; Section Head, Catalysis Science

Stanford University; Consulting Professor of Chemical Engineering (1988-1993)

HONORS AND AWARDS

Research

Fellow, National Academy of Inventors (2016)
Member, American Academy of Arts and Sciences (2015)
Fellow, American Institute of Chemical Engineers (2014)
Fellow, Japan Society for the Promotion of Science (2013)
Honorary Fellow, Chinese Chemical Society (2013)
ENI Prize, New Frontiers in Hydrocarbons (2012)
Somorjai Award for Creative Research in Catalysis, American Chemical Society (2012)
Francois Gault Lectureship Award, European Federation of Catalysis Societies (2011)
Alpha Chi Sigma Institute Award, American Institute of Chemical Engineers (2011)
Cross Canada Lectureship Award, Chemical Institute of Canada (2011)
Fellow, American Chemical Society (2010)
Tanabe Prize in Acid-Base Catalysis (2009)
Member, National Academy of Engineering (2008)
Humboldt Senior Scientist Research Award, Alexander von Humboldt Foundation (2007)
Doctor Honoris Causa, Universidad Politecnica de Valencia (2007)
Robert Burwell Lectureship Award, North American Catalysis Society (2006)
George A. Olah Award in Hydrocarbon Chemistry, American Chemical Society (2005)
Award for Excellence in Natural Gas Conversion (2004)
Richard H. Wilhelm Award in Chemical Reaction Engineering, American Institute of Chemical Engineers (2003)
Paul Emmett Award in Fundamental Catalysis; North American Catalysis Society (1997)
Award for Excellence in Catalysis and Eminent Visitor Award, Chemical Society of South Africa (1998)
1992 Golden Tiger Award (Annual Exxon Award for: “Inspirational Leadership and Outstanding Contributions in Catalytic Science and Technology”)
Silver Medal of the Royal Society of Arts (1977, highest-ranked graduating senior in the Schools of Engineering and Architecture, Princeton University)
Phi Beta Kappa (1977); **Tau Beta Pi** (1976; Princeton Chapter President, 1976-77)

Teaching

Best Teacher Award, College of Chemistry, University of California at Berkeley (2010)
Donald Sterling Noyce Prize for Excellence in Undergraduate Teaching, University of California (2005) (highest teaching award in the physical sciences at Berkeley)
Best Teacher Award, Berkeley Chapter, American Institute of Chemical Engineers (1999)
AIChE Award for Chemical Engineering Excellence in Academic Teaching (California Chapter) (1995-96)

LECTURESHIPS AND PROFESSORSHIPS

Wolfgang Sachtler Inaugural Lecturer, Northwestern University (2017)
T.W. Leland Jr. Lecturer, Rice University (2017)
Eastman Chemicals Lecturer, University of Virginia (2016)
UCR Distinguished Lecturer, University of California-Riverside (2016)
Cary Lecturer, Georgia Institute of Technology (2015)
Lanning Distinguished Lecturer, Washington State University (2015)
Lowrie Lecturer, Ohio State University (2015)
Richard H. Wilhelm Lecturer, Princeton University (2014)
Kelly Lecturer, Purdue University (2014)
Gaden Lecturer, Columbia University (2013)
Dow Lecturer, Carnegie Mellon University (2013)
Xingda Lecturer, Peking University (2013)
Vladimir Haensel Lecturer, UOP (2013)
Wohl Lecturer, University of Delaware (2012)
David Mason Lecturer, Stanford University (2012)
UOP Invitational Lecturer, UOP (2011)
Sussman Lecturer, Tufts University (2010)
William Flowers Hand Lecturer, Mississippi State University (2010)
ExxonMobil Lecturer, University of Massachusetts (2009)
Distinguished Lindsay Lecturer, Texas A&M University (2009)
Hess Lecturer, University of Virginia (2009)
Texas Distinguished Faculty Lecturer, University of Texas-Austin (2008)
Pfizer Lecturer, Purdue University (2007)
Sasol Lecturer, University of Ottawa (2006)
Honorary Professor, Universidad Nacional del Litoral, Santa Fe, Argentina (2005)
V.N. Ipatieff Professorship, Northwestern University (2004/2005)
Wilhelm Manchot Chemistry Professorship, Technical University of Munich (2004)
Hwa-Ying Visiting Scholar, Nanjing, Xiamen, and Tsinghua Universities, China, 2001
Harry G. Fair Memorial Lecture, University of Oklahoma (2000)
Distinguished Lecturer, Departments of Applied Chemistry and Chemical Engineering, University of Toronto (1999)
UOP Invitational Lecturer, UOP (1998)
Visiting Professor, CONICET Distinguished Lecturer, Universidad Nacional del Litoral, Santa Fe, Argentina (1994)
Consulting Professor of Chemical Engineering, Stanford University (1988-1993)

SERVICE TO PROFESSIONAL SOCIETIES

17th International Congress on Catalysis, Meeting Chair (2020)

11th International Congress on Catalysis, Executive Organizing Committee and Program Co-Chair (1996)

6th International Natural Gas Conversion Symposium, Meeting Co-Chair and Technical Program Chair (2001)

7th International Natural Gas Conversion Symposium, Technical Program Chair (2004)

National Academy of Engineering

Chair, Canvassing Committee (2018-2019)

Vice Chair, Canvassing Committee (2017)

Peer Committee (2011-2014)

International Association of Catalysis Societies

Vice-President (2016-2020)

President (2020-2024)

North American and Catalysis Society

President (2009-2017)

Vice-President (2005-2009)

California Catalysis Society Representative to National Society (1999-2005)

Meeting Co-Chair; 2009 North American Meeting of the Catalysis Society (2009)

American Institute of Chemical Engineers

Director, Catalysis and Reaction Engineering Division (1997-2001)

Awards Committee Chair, Catalysis and Reaction Engineering Division (1998-99)

Walker, Alpha Chi Sigma, Colburn, Wilhelm Award Sub-Committees (1997-date)

American Chemical Society

Chairman, Division of Petroleum Chemistry (1995-96)

Chairman-Elect and Program Chairman, Division of Petroleum Chemistry (1994)

Chairman, Program Committee, and Member, Executive Committee, Division of Petroleum Chemistry (1991-1993); Coordinator, Catalysis Symposia, Division of Colloid and Surface Chemistry (1991-1993); Delegate, Catalysis Secretariat (1992-1997); Member, Long Range Planning Committee, Petroleum Chemistry (1995-1998)

EDITORIAL ACTIVITIES

Editor-in-Chief, **Journal of Catalysis** (1997-2010)

Associate Editor, “**Encyclopedia of Catalysis**” Wiley (2002) (2003 Award for Best Multi-Volume Reference from the Association of American Publishers)

Guest Editor, **Topics in Catalysis**, Vol. 2 (1995)

Editor, “Synthesis and Properties of Advanced Catalytic Materials,” **Materials Research Society Symposium Proceedings** (Iglesia, E., Lednor, P.W., Nagaki, D., and Thompson, L.T. Eds.) , Vol. 368 (1995)

Editor, **Proceedings of the 11th International Congress on Catalysis; Studies in Surface Science and Catalysis** (Hightower, J.W., Delgass, W.N., Iglesia, E., and Bell, A.T., Eds.), Academic Press (1996)

Editor, **Proceedings of the 6th Natural Gas Conversion Symposium: Studies in Surface Science and Catalysis** (Iglesia, E., Spivey, J.J., and Fleisch, T.H., Eds.), Elsevier (2001)

Editorial Advisory Board, **Encyclopedia of Nanoscience and Nanotechnology**, Marcel Dekker (2003)

Editorial Advisory Boards

Journal of Catalysis (2010-date)

Advances in Catalysis (2007-date)

Journal of Energy Chemistry (2012-date)

Catalysis Book Series, Royal Society of Chemistry (2007-date)

Catalysis Monograph Series (Imperial College Press) (2001-date)

Catalysis Surveys (Japan) (1998-date)

Industrial Catalysis News (1998-2001)

Catalysis Today (1993-1998)

Energy and Fuels (1997-2001)

CONSULTING AND ADVISORY ACTIVITIES

International Technology Advisory Board, **World Gold Council (2010-date)**
Fachbeirat, **Fritz Haber Institute, Max Planck Gesellschaft (2005-2012)**
Technology Advisory Council, **BP p.l.c (2007-2014)**
Advisory Board, College of Engineering, **Stanford University (2010-date)**
Scientific Advisory Board, **Nanostellar, Inc. (2004-2009)**
Scientific Advisory Board, **Range Fuels. (2006-2010)**
Senior Scientific Advisor, **Catalytica, Inc. (1995-2001)**
Senior Scientific Advisor, **Catalytica Advanced Technologies (1997-2001)**
Senior Scientific Advisor, **Catalytica NovoTec (1999-2002)**
Consultant: **BP, ExxonMobil, Sabc Industries, Nanostellar, Novodynamics, Novotec, Catalytica Energy Systems, Range Fuels, UPM**
Advisory Board, International Conference on Environmental Catalysis (2000-date)
Advisory Board, **Natural Gas Conversion Symposium (1996-2010); Chair (2005-2010)**
International Scientific Board, **International Congress on Catalysis (1998-date)**
International Scientific Board, **“Oxide-Based Catalysts at the Crossroads of Chemistry”**, Como Conference, Como, Italy, October 8-11, 2000
National Research Council Standing Committee, U.S. Department of Energy Vision 21 Research and Development Program (2002-date)
International Advisory Board, **World Congress on Oxidation Catalysis (2003-date)**.
Scientific Advisory Board, **International Symposium Acid-Base Catalysis (2002-date)**
Advisory Board, **Asia Pacific Catalysis Conferences (1997-date)**

BIOGRAPHICAL NOTE

Enrique Iglesia

Enrique Iglesia was born in Havana, Cuba in 1954. He received a B.S. from Princeton University (1977) and a Ph.D. from Stanford University (1982) in Chemical Engineering. In 1993, he joined the University of California at Berkeley as Professor of Chemical Engineering, after eleven years of research and management experience at the Exxon Corporate Research Laboratories. He is currently the Theodore Vermeulen Chair in Chemical Engineering at the University of California at Berkeley and a Faculty Senior Scientist in the E.O. Lawrence Berkeley National Laboratory.

He has been the Editor-in-Chief of the Journal of Catalysis (1997-2010). He acts as President of the North American Catalysis Society and as Vice-President of the International Association of Catalysis Societies. He has served as chairman of the ACS Division of Petroleum Chemistry and as Director of the AIChE Division of Catalysis and Reaction Engineering. He is the founding and current Director of the Berkeley Catalysis Center.

He was elected a member of the National Academy of Engineering in 2008 and of the American Academy of Arts and Sciences in 2015. He is a Fellow of the American Chemical Society (2010) and the American Institute of Chemical Engineers (2014) and an Honorary Fellow of the Chinese Chemical Society (2013).. He has received a Humboldt Senior Scientist Award from the Alexander von Humboldt Foundation and a Doctor Honoris Causa from the Universidad Politecnica de Valencia. His research has been recognized with the George A. Olah Award in Hydrocarbon Chemistry of the American Chemical Society, the Award for Excellence in Natural Gas Conversion, the Wilhelm Manchot Chemistry Prize of the Technical University of Munich, the Richard H. Wilhelm Award in Chemical Reaction Engineering of the American Institute of Chemical Engineers, and the Paul H. Emmett Award in Fundamental Catalysis of the Catalysis Society. He has also received the Robert Burwell Lectureship of the Catalysis Society, the V.N. Ipatieff Professorship at Northwestern University. He was named the Cross Canada Lecturer of the Chemical Institute of Canada and the inaugural recipient of the Tanabe Prize in Acid-Base Catalysis. His teaching awards include the Donald Sterling Noyce Prize, the top teaching award in the physical sciences at Berkeley, the Best Teacher Award of the College of Chemistry, and the Best Teacher Award of the Department of Chemical Engineering and the Award for Excellence in Teaching of the American Institute of Chemical Engineers.

Professor Iglesia has co-authored more than 300 articles in the leading journals in chemistry and chemical engineering and is a co-inventor of nearly 40 U.S. patents. His research group addresses the design, synthesis, and structural and mechanistic characterization of inorganic solids useful as catalysts for chemical reactions important in the production, conversion and use of energy carriers, in sustainable petrochemical syntheses, and in the protection of the environment. These studies exploit novel synthetic protocols for the synthesis of active nanostructures and of isolated single-site catalysts within microporous and mesoporous solids, as well as techniques for the characterization of the local structure and atomic connectivity in these inorganic solids, in most instances during catalytic reactions. They also involved state-of-the-art steady-state and transient kinetic methods and isotopically labeled reactants and products in order to elucidate the mechanism of catalytic reactions on surfaces, at the level of primary and secondary reaction networks and of elementary surface steps using a seamless combination of systematic experimental assessments benchmarked against rigorous analysis by density functional theory and higher-level treatments.

PUBLICATIONS, PATENTS, AND PRESENTATIONS

Enrique Iglesia

PUBLICATIONS

1983

1. Iglesia, E. and Boudart, M., **Journal of Catalysis** 81, 204 (1983). (“Decomposition of Formic Acid on Copper, Nickel, and Copper-Nickel Alloys I. Preparation and Characterization of Catalysts”).
2. Iglesia, E. and Boudart, M., **Journal of Catalysis** 81, 214 (1983). (“Decomposition of Formic Acid on Copper, Nickel, and Copper-Nickel Alloys II. Catalytic and Temperature-Programmed Decomposition of Formic Acid on Cu/SiO₂, Cu/Al₂O₃, and Cu Powder”).
3. Iglesia, E. and Boudart, M., **Journal of Catalysis** 81, 224 (1983). (“Decomposition of Formic Acid on Copper, Nickel, and Copper-Nickel Alloys III. Catalytic Decomposition on Nickel and Copper-Nickel Alloys”).

1984

4. Iglesia, E. and Boudart, M., **Journal of Catalysis** 88, 325 (1984). (“Decomposition of Formic Acid on Copper, Nickel, and Copper-Nickel Alloys IV. Temperature-Programmed Decomposition of Bulk Nickel Formate and of Formic Acid Preadsorbed on Nickel Powder”).
5. Wachs, I.E., Dwyer, D.J., and Iglesia, E., **Applied Catalysis** 12, 201 (1984). (“Characterization of Fe, Fe-Cu, and Fe-Ag Fischer-Tropsch Catalysts”).

1986

6. Iglesia, E. and Boudart, M., **Journal of Physical Chemistry** 90, 5272 (1986). (“Unimolecular and Bimolecular Formic Acid Decomposition on Copper”).

1988

7. Iglesia, E., in **Proc. XI Iberoam. Catal. Symp.** p. 496 (1988). (“Copper Characterization by Chemisorptive Titration and Catalytic Reaction Techniques”).

1989

8. Iglesia, E. and Price, G.L., **Ind. Eng. Chem. Res.** 28, 839 (1989). (“A Matrix Method for Correction of Mass Spectra in Deuterium-Exchange Applications”).
9. Reyes, S.C., Iglesia, E., and Jensen, K.F., **Solid State Ionics** 32/33, 833 (1989). (“Application of Percolation Concepts to the Analysis of Gas-Solid Reactions”).

10. Price, G.L, and Iglesia, E., **Ind. Eng. Chem. Res.** **28**, 1089 (1989). (“Use of CI-MS for the Determination of Deuterium Content in Hydrocarbons I. The Boundary Method for Hydrogen Abstraction Spectra”).
11. Price, G.L, and Iglesia, E., **Ind. Eng. Chem. Res.** **28**, 1688 (1989). (“Use of CI-MS for the Determination of Deuterium Content in Hydrocarbons II. Solutions for Systems Involving Multiple Ionization Processes”).

1990

12. Iglesia, E., Baumgartner, J., Price, G.L., Robbins, J.L., and Rose, K.D., **Journal of Catalysis** **125**, 95 (1990). (“Alkane Rearrangement Reactions on Tellurium-Loaded Zeolites”).
13. Reyes, S.C., Iglesia, E., Chiew, Y.C., in **Proceedings of the Materials Research Society** **195**, 553 (1990). (“Monte Carlo Simulations of Effective Diffusivities in Three-Dimensional Pore Structures”).
14. Soled, S.L., Iglesia, E., Fiato, R.A., **Catalysis Letters** **7**, 271 (1990). (“Activity and Selectivity Control in Iron-Catalyzed Fischer-Tropsch Synthesis”).

1991

15. Reyes, S.C. and Iglesia, E., **Chemical Engineering Science** **46**, 1089 (1991). (“Monte Carlo Simulations of Structural Properties of Packed Beds”).
16. Iglesia, E. Reyes, S.C., Madon, R.J., **Journal of Catalysis** **129**, 238 (1991). (“Transport-Enhanced Olefin Readsorption Pathways in Ru-Catalyzed Hydrocarbon Synthesis”).
17. Reyes, S.C., Iglesia, E., **Journal of Catalysis** **129**, 457 (1991). (“Effective Diffusivities in Catalyst Pellets. New Model Porous Structures and Transport Simulation Techniques”).
18. Ribeiro, F.H., Dalla-Betta, R.A., Boudart, M., Baumgartner, J.E., and Iglesia, E., **Journal of Catalysis** **130**, 86 (1991). (“Reactions of Neopentane, Methylcyclohexane, and 3,3 Dimethylpentane on Tungsten Carbides. The Effect of Surface Oxygen”).
19. Ribeiro, F.H., Boudart, M., Dalla-Betta, R.A., and Iglesia, E., **Journal of Catalysis** **130**, 498 (1991). (“Reactions of n-Hexane on Tungsten Carbides. The Effect of Surface Oxygen”).
20. Madon, R.J., Iglesia, E., Reyes, S.C., **Journal of Physical Chemistry** **95**, 7795 (1991). (“Primary and Secondary Reaction Pathways in Ru-Catalyzed Hydrocarbon Synthesis”).
21. Robbins, J.L., Iglesia, E., Kelkar, C.P., DeRites, B.A., **Catalysis Letters** **10**, 1 (1991). (“Methanol Synthesis on Copper-Silica Catalysts”).

22. Iglesia, E. and Boudart, M., **Journal of Physical Chemistry** **95**, 7011 (1991). (“Structure-Sensitivity and Ensemble Effects in Reactions of Strongly Adsorbed Intermediates. Catalytic Dehydrogenation and Dehydration of Formic Acid on Nickel.”).
23. Iglesia, E., Baumgartner, J., Ribeiro, F.H., Boudart, M., **Journal of Catalysis** **131**, 523 (1991). (“Bifunctional Alkane Rearrangement Pathways on Tungsten Carbides Modified by Chemisorbed Oxygen”).

1992

24. Iglesia, E., Baumgartner, J., and Price, G.L., **Journal of Catalysis** **134**, 549 (1992). (“Hydrogen Surface Fugacities in Catalysis. Reactions of Alkanes on Te/NaX, H-ZSM5, and Ga/H-ZSM5”).
25. Soled, S.L., Iglesia, E., Rice, G.W., and Fiato, R.A., in **Proceedings of the Seventh Annual International Coal Conference 1990**, pp. 593-602 (1991). (“Selectivity Control in Fischer-Tropsch Synthesis”)
26. Iglesia, E., Ribeiro, F.H., Boudart, M., and Baumgartner J.E., **Catalysis Today** **15**, 307 (1992). (“Catalytic Reactions on Clean and Oxygen-Modified Tungsten Carbides”, Special Issue on “High Surface Area Carbides and Nitrides”).
27. Iglesia, E., Ribeiro, F.H., Boudart, M., and Baumgartner J.E., **Catalysis Today** **15**, 455 (1992). (“Tungsten Carbides Modified by Chemisorbed Oxygen. A New Class of Bifunctional Catalysts”, Special Issue: Proceedings Workshop on Advances in Catalyst Preparation).
28. Iglesia, E., Soled, S.L., and Fiato, R.A., **Journal of Catalysis** **137**, 212 (1992). (“Fischer-Tropsch Synthesis on Cobalt and Ruthenium. Dispersion and Support Effects on Reaction Rate and Selectivity”).
29. Resasco, D.E., Miranda, R., and Iglesia, E., **Catalysis Today** **15**, 339 (1992). **Special Issue on “Recent Advances in Catalyst Preparation”**. (“Workshop on the Progress in Catalyst Preparation. Summary, Conclusions, and Recommendations”).

1993

30. Iglesia, E., Baumgartner, J., and Meitzner, G.D., in “**New Frontiers in Catalysis**” (**Proc. 10th Intern Congr. Catal.**), Guczi, L. Solymosi, F., and Tetenyi, P. Eds. p. 2353. Akademiai Kiado, Budapest 1993. (Also Stud. Surf. Sci. Catal. **75**, 2353 (1993)). (“The Role of Surface Fugacities and of Hydrogen Desorption Sites in Catalytic Reactions of Alkanes”).
31. Reyes, S.C., Duran, M.A., and Iglesia, E., in **Proc. XIII Iberoamerican Symp. Catal., Vol. II**, pp. 705-710 (1993). (Segovia, Spain, 1992). (“Structural Models of Porous Networks and the Optimization of Catalytic Rates and Selectivity”).

32. Reyes, S.C., Iglesia, E., and Kelkar, C.P., in **Proc. XIII Iberoamerican Symp. Catal., Vol. I, pp. 473-478 (1993)**. (Segovia, Spain, 1992). (“Kinetic-Transport Models of Coupled Thermal-Catalytic Reactions. Oxidative Coupling Reactions of Methane”).
33. Iglesia, E., Baumgartner, J., in **“New Frontiers in Catalysis” (Proc. 10th Intern Congr. Catal.)**, Guzzi, L. Solymosi, F., and Tetenyi, P. Eds. p. 993. Akademiai Kiado, Budapest 1993. (Also Stud. Surf. Sci. Catal. 75, 993 (1993)). (“A Mechanistic Proposal for Alkane Dehydrocyclization Rates on Pt/L-Zeolite. Inhibited Deactivation of Pt Sites Within One-Dimensional Zeolite Channels”).
34. Iglesia, E., Reyes, S.C., and Soled, S.L., in **“Computer Aided Design of Catalysts”, Chapter 7, p. 199** (R.E. Becker and C.J. Pereira, eds.) Marcel Dekker, New York, 1993. (“Reaction-Transport Selectivity Models and the Design of Fischer-Tropsch Catalysts”).
35. Reyes, S.C. and Iglesia, E., in **“Computer Aided Design of Catalysts”, Chapter 5, p. 89**. (R.E. Becker and C.J. Pereira, eds.) Marcel Dekker, New York, 1993. (“Simulation Techniques for the Design and Characterization of Catalyst Pellets”).
36. Iglesia, E., Baumgartner, J., in **Proceedings 9th International Zeolite Conference, Vol. II, p. 421** (von Ballmoos, R., Higgins, J.B., and Treacy, M.M.J., Eds.) Butterworth, 1993. (“Inhibited Deactivation of Pt Sites Within One-Dimensional L-Zeolite Channels”).
37. Iglesia, E., Reyes, S.C., and Madon, R.J., in **“Advances in Catalysis and Related Subjects” (Eley, D.D., Weisz, P.B., and Pines, H., eds.) Vol. 39, p. 221. Academic Press, 1993**. (“Selectivity Control and Catalyst Design in the Fischer-Tropsch Synthesis. Sites, Pellets, and Reactors”).
38. Reyes, S.C., Iglesia, E., and Kelkar, C.P., **Chemical Engineering Science 48, 2643 (1993)**. (“Reaction-Transport Models of Bimodal Reaction Sequences. Oxidative Coupling of Methane”).
39. Madon, R.J., Iglesia, E., and Reyes, S.C., **ACS Symp. Series “Selectivity in Catalysis” (Davis, M.E. and Suib, S.L., eds.) Vol. 517, Chapter 27, p. 383**. American Chemical Society, Washington, D.C., 1993. (“Carbon Number Distributions of Fischer-Tropsch Synthesis Products on Co, Ru, and Fe Catalysts”).
40. Madon, R.J. and Iglesia, E., **Journal of Catalysis 139, 576 (1993)**. (“The Importance of Olefin Readsorption and H₂/CO Reactant Ratio for Hydrocarbon Chain Growth on Ruthenium Catalysts”).
41. Meitzner, G.D., Iglesia, E., Baumgartner, J.E., and Huang, E.S., **Journal of Catalysis 140, 209 (1993)**. (“The Chemical State of Ga in Working Propane Dehydrocyclodimerization Catalysts. In-Situ X-Ray Absorption Spectroscopy Studies”).
42. Iglesia, E. and Reyes, S.C., **Computer-Aided Innovation of New Materials II (Doyana, M., Kihara, J., Tanaka, M., and Yamamoto, R., Eds.) p. 1053. Elsevier, 1993**. (“Structural and Reaction Models for the Design and Optimization of Catalytic Sites, Pellets, and Reactors”).

43. Reyes, S.C. Kelkar, C.P., and Iglesia, E., **Catal. Let.** **19**, 167 (1993). (“Kinetic-Transport Models and the Design of Catalysts and Reactors for Oxidative Coupling of Methane”).
44. Reyes, S.C. and Iglesia, E., **Computer-Aided Innovation of New Materials II (Doyana, M., Mihara, J., Tanaka, M., and Yamamoto, R., eds.)** p. 1007. Elsevier, 1993. (“Simulation Techniques for the Design and Optimization of Structural and Transport Properties of Mesoporous Materials”).
45. Iglesia, E. and Reyes, S.C., **Catalysis, Specialist Periodical Reports, (Spivey, J.J., ed.) Vol. 11, (1993)**. Royal Society of Chemistry, Thomas Graham House, Cambridge, UK. (“Frequency Response Techniques for the Characterization of Porous Catalytic Solids”).
46. Iglesia, E. and Baumgartner, J.E., **Catalysis Letters** **21**, 55 (1993). (“Hydrogen Transfer and Activation of Propane and Methane on ZSM5-Based Catalysts”).
47. Iglesia, E., Soled, S.L., Fiato, R.A., and Via, G.H., **Journal of Catalysis** **143**, 345 (1993). (“Bimetallic Synergy in Cobalt-Ruthenium Fischer-Tropsch Synthesis Catalysts”).
48. Iglesia, E., Soled, S.L., and Kramer, G.M., **Journal of Catalysis** **144**, 238 (1993). (Isomerization of Alkanes on Sulfated Zirconia. Promotion by Pt and by Adamantyl Hydride Transfer Molecules”).
49. Iglesia, E. and Baumgartner, J.E., **ACS Div. Petrol. Chem. Preprints**, **38**, 746 (1993). (“Hydrogen Transfer and Activation of Light Alkanes on H-ZSM5 Modified by Metal Cations”).
50. Reyes, S.C., DeMartin, G., Kelkar, C.P., Ernst, R.H., and Iglesia, E., **ACS Div. Petrol. Chem. Preprints** **34**, 895 (1993). (“Frequency Response Techniques for the Measurement of Diffusion and Adsorption within Porous Solids”).

1994

51. Soled, S.L., Miseo, S., Baumgartner, J.E., Gates, W.E., Barton, D.G., and Iglesia, E., **Proc. 13th Intern. Conf. Catal. (“New Trends in Solid Superacids and Superbases”)** (Izumi, Y., Ampo, M., and Izumi, Eds.). The Tanaguchi Foundation (1994) (“Comparison of Strong Solid Acids Based on Sulfate and Tungstate-Modified Zirconia”).
52. Iglesia, E., Soled, S.L., and Fiato, R.A., in “**Natural Gas Conversion II,**” **Proc. 3rd Nat. Gas Conv. Symp.**, p. 433 (1994) (“Dispersion, Support, and Bimetallic Effects in CO Hydrogenation on Cobalt Catalysts”).
53. Soled, S. L., Iglesia, E., and Kramer, G. M., **Stud. Surf. Sci. Catal. (Acid-Base Catalysis II)** **90**, 531 (1994) (“Modification of isomerization activity and selectivity over sulfated zirconia catalyst”).
54. Madon, R.J., and Iglesia, E., **Journal of Catalysis**, **149**, 428 (1994). (“Hydrogen and CO Intrapellet Diffusion Effects in Ru-Catalyzed Hydrocarbon Synthesis”).

1995

55. Iglesia, E., Soled, S.L., Baumgartner, J.E., and Reyes, S.C., **Topics in Catalysis** **2**, 17 (1995). (“Synthesis and Catalytic Properties of Eggshell Catalysts for the Fischer-Tropsch Synthesis”).
56. Soled, S.L., Iglesia, E., Baumgartner, J.E., and Reyes, S.C., **Stud. Surface Sci. Catal.** **91**, 989 (1995). (“Synthesis of Eggshell Cobalt Catalysts by Molten Salt Impregnation Techniques”).
57. Iglesia, E., Soled, S.L., Baumgartner, J.E., and Reyes, S.C., **Journal of Catalysis** **153**, 108 (1995). (“Synthesis and Catalytic Properties of Eggshell Cobalt Catalysts for the Fischer-Tropsch Synthesis”).
58. Soled, S.L., Iglesia, E., Miseo, S., DeRites, B.A., and Fiato, R.A. **Topics in Catalysis** **2**, 193 (1995). (“Selective Synthesis of α -Olefins on Fe-Zn Fischer-Tropsch Catalysts”).
59. Soled, S.L., Baumgartner, J.E., Reyes, S.C., and Iglesia, E., **Materials Research Society Symposium Proceedings**, Iglesia, E., Lednor, P.W., Nagaki, D.A., and Thompson, L.T., eds., **368**, 113 (1995). (“Synthetic Design of Cobalt Fischer-Tropsch Synthesis Catalysts”).

1996

60. Biscardi, J.A. and Iglesia, E., **Catalysis Today** **31**, 207 (1996) (“Structure and Function of Metal Cations in Light Alkane Reactions Catalyzed by Modified ZSM-5”).
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