YANHAI DU, Ph.D.

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Summary

Yanhai Du, Ph.D., is a material scientist and an internationally recognized scholar in cutting-edge solid oxide fuel cell (SOFC) technology. Currently, Dr. Du directs the research activities of the Fuel Cell Laboratory and Metal Additive Manufacturing Laboratory at Kent State University. His expansive research interests range from fuel cells, energy conversion and storage, to additive manufacturing and sustainable systems. During his 20 years in this field, he has acquired extensive insight into the development and manufacture of SOFC technology and received numerous research grants from federal agencies, state government, industries, and foundations. Most importantly, Dr. Du has spent the last 10 years dedicated to academia, where he has established himself as world-class researcher, and as a sought-after teacher, who not only has developed highly popular university courses but consistently earned high praise from his students as an effective teacher in the classroom and as a mentor out of the classroom. As an educator, Dr. Du has mentored a diverse number of scientists and students, including postdocs, PhD. graduate and undergraduate students, and even high school students.

Before joining Kent State in August 2013, Dr. Du was a Research Professor at the University of South Carolina, where he led two federal projects to develop portable SOFC power systems, which operate on propane and JP-8 fuels. He was instrumental in the worldwide development and adoption of micro-tubular SOFC technology, and he was among the first group to transfer this technology from laboratory to mass production. As a Director of Fuel Cell Development at NanoDynamics, Dr. Du led a team of 40 scientists and engineers in the development of fuel cell technologies.

Dr. Du has authored/co-authored more than 170 technical publications, including an edited book "*Fuel Cells*" (ISBN: 9783035715484, 2020), 12 patents (5 awarded), 47 articles in internationally referred high impact journals, such as *Nature, Nano Energy, Chemical Society Reviews, Renewable and Sustainable Energy Reviews, J. Power Sources, Materialia, International J. Hydrogen Energy*. Dr. Du's Google Scholar h-index is 25 with over 2300 citations.

Given Dr. Du's reputation as a leading researcher in SOFC technology he has earned several prestigious accolades, including being invited as a panelist for grant proposal reviews for U.S. *National Science Foundation* and *European Union*, and as an ad-hoc reviewer for over 30 international referred high-impact journals, including *Nature*, *Nano Energy*, *Renewable and Sustainable Energy Reviews*, and as an expert selected by *Department of Labor* to define the nation's *Fuel Cell Engineering* job definition, elected *Board of Directors* of *Ohio Fuel Cell Coalition*. Dr. Du was featured in the *Fuel Cell Corridor* (Feb. 2014, Aug.t 2015), and *e-Insider* (Aug. 10, 2015; July 7, 2016). His fuel cell research was also highlighted in 4 Kent State public information announcements (2016), the *Record-Courier* (March 27, 2016), *Kent State Research Magazine* (Spring 2018), and *WKSU* (May 18, 2019). In 2018, Dr. Du received Kent State's prestigious *President's Faculty Excellence Award*, and in 2019, he was recognized with the *Outstanding Faculty Award* from the College of Aeronautics and Engineering.

Dr. Du received his M.S. and Ph.D. degrees from The University of Waikato (New Zealand), B.Sc. from Xi'an University of Architecture & Technology (China), and certificate of Effective Communications from USA.

1. Education:

Ph.D., Material Science, The University of Waikato (New Zealand), 2004
M.Sc., Material Technology, The University of Waikato (New Zealand), 1998
B.Sc., Ceramics, Xi'an University of Architecture & Technology (China), 1983

2. Academic Experience:

2021-Present	**Professor**, College of Aeronautics and Engineering, Kent State University, OH
2017-2021	**Associate Professor**, College of Aeronautics and Engineering, Kent State University, OH
2013-2017	**Assistant Professor**, College of Aeronautics and Engineering, Kent State University, OH
2009-2013	**Research Professor**, Solid Oxide Fuel Cell Center, University of South Carolina, SC
2002-2005	**Research Scientist**, Center for Clean Energy Engineering, University of Connecticut, CT

3. Industrial Experience:

2013-Present	**Co-Founder and Scientific Advisor**, Yanhai Power Technology, LLC, OH.
2014 (Summer)	**NASA Faculty Fellow**, Cleveland, OH, http://www.nasa.gov/centers/glenn/
2005-2009	**Director** of Fuel Cell Development, NanoDynamics Inc., Buffalo, NY
2000-2002	**Sr. Process Engineer**, Acumentrics, Walpole, MA.
1989-1995	**Project Manager**, State Bureau of Building Materials Industries, Beijing
1983-1989	**Engineer**, Central Iron and Steel Research Institute, Beijing

4. Honors and Awards:

- **2019, Outstanding Faculty Award**, College of Aeronautics & Engineering, Kent State University
- **2018, President's Faculty Excellence Award,** Kent State University
- **2018, Yanhai Du's Sustainable Dream, *Kent State University*** *Research Magazine*, Spring
- **2017, Recognized Reviewer by Elsevier,** One of the world's major providers of scientific, technical, and medical information
- **2016 July, The Future of Fuel Cells - Pioneering Professor Focuses on Fuel Cell Technology,** *E-Insider*
- **2016 March, Fuel Cells and the Future, *Record-Courier*,** March 27, 2016
- **2015 August, Kent State Team Awarded for Fuel Cell Research**
  Three members from Dr. Du's Research Team (Aliaa Maar, Theo Woodson and Kai Zhao, Ph.D.) were awarded first, second and third prizes for Fuel Cell Research at the Ohio Fuel Cell Symposium, Fuel Cell Corridor
- **2015 July, Dominion Award for Fuel Cell Educational Technologies Program**
  Dominion Higher Education Partnership
- **2014, Faculty Excellence Award,** College of Aeronautics and Engineering, Kent State University
- **2014 June, NASA/Ohio Space Grant Consortium (OSGC) Scholarship**
  Undergraduate student, Miguel R.D. Richey, senior aeronautics major, mentored by Dr. Du was awarded the OSGC Scholarship in his junior year for his project "Alternative Propulsion Technologies in Aircraft Engines"
- **2014 April, Sustainability Await to Be Kent Core Addition,** *Kent Daily Starter,* April 6, 2014
- **2014 April, Farris Family Innovation Awards,** for Research of "Enabling a High Power Density and Small Size Fuel Cell"
- **2014 February, Technology Professor Promotes Fuel-Cell Research to Kent State Students**
  KentWired.com and *The Fuel Cell Corridor*
- **2014 January, Scholar of the Month, Scholar Fuels Students' Knowledge of Technology**
  Kent State News
- **2013 Invent Event Winners, Honorable Mentions, University of South Carolina**
  Title of Invention: Liquid Fuel On-board Miniature Desulfurizer; Inventors: Yanhai Du, Kenneth Reifsnider

5. Teaching, Course Development and Mentoring:

- New Courses Developed: *Introduction to Sustainability* (ENGR 27210), *Sustainable Energy Systems* (ENGR 57210).
- The courses Dr. Du offers include *Introduction to Sustainability* (ENGR 27210), *Individual Investigation* (ENGR 43096), *Sustainable Energy* (ENGR 57210), *Sustainable Energy Systems* (ENGR 71095), *Research* (ENGR 610980), *Thesis I* (ENGR 61199) & *II* (ENGR 61299), and *Dissertation I* (ENGR 85199) *& II* (ENGR 85299).

6. Major Funded Research:

Received more than $5 million in research grants for various clean energy research projects from federal agencies, the state government, foundations, and private companies, including a PI for $485,000 awarded from ONR and a PI for $2.24M awarded from OFRN.

7. Services and Professional Activities:

Committees/Boards

Professional Communities

- Ohio Fuel Cell & Hydrogen Coalition (OFCC), Member of Board of Directors, 2018 - current
- Journal: *Sustainability*, Session Board, current
- Session Chair, *17th International Symposium on Solid Oxide Fuel Cells*, online, July 18-23, 2021.
- NASA Watt on the Moon – Phase I Judge, 2021
- Book Editor: Fuel Cells (ISBN: 978-3-03548-4) Trans Tech Publications Ltd., 2020.
- NSAS Centennial Challenges – Lunar Power Ideation Workshop, 2019
- Department of Labor invited expert to define the "Fuel Cell Engineer" occupation, 2019
- NASA/Ohio Space Grant Consortium (OSGC) Executive Committee, Kent State University Campus Representative, 2014 - 2015

Kent State University

- Provost Advisory Council, 2023 - 2025
- University Research Council, 2020 - 2025
- Faculty Senate, 2020 - 2023
- Research Faculty Advisory Committee, 2021 - present
- Advanced Materials & Liquid Crystal Institute's (AMLCI) Internal Advisory Board (2029-present)
- Tenure Advisory Board (TAB), Member, 2017 - 2022
- Promotion Advisory Board, 2019, 2023
- Research Advisory Committee (RAC), CAE Representative, 2015 - 2019
- University Requirement Curricular Committee (URCC), College Faculty Representative, 2015 - 2016

College of Aeronautics and Engineering

- College Advisory Committee, 2019 – present
- Sustainability Minor, Lead Faculty, 2013 - present
- College Graduate Faculty Advisory Committee (GFAC), Member, 2013 - present
- College Engineering Faculty Committee, Member, 2013 - present
- College Curriculum Committee (CCC), Member, 2013 - 2016
- Applied Engineering Technology Management concentration, Lead, 2021 - 2022
- Faculty Search Committees: 2021 Aerospace System; 2020 Aviation Logistics; 2018 *Chair* for 4 faculty searches, 2018S for Applied Engineering; 2015S Construction Management

Reviewer for Grant Proposals, Journals and Editorship

Grant Proposal Reviewer for:

1) *Grant Proposal Panel Reviewer, National Science Foundation (2016, 2017)*
2) *Grant Proposal Reviewer, European Union Commission (2020)*
3) *Grant Proposal Reviewer, University of Sharjah (UAE) (2021)*
4) *Grant Proposal Reviewer, Department of Energy (2023)*

Journal Reviewer for over 30 Peer Reviewed Journals:

1) *Achieves of Metallurgy and Materials*
2) *Additive Manufacturing 11.31*
3) *Advanced Functional Materials 19.92*
4) *Applied Catalyst B-Environmental, 22.1*
5) *Applied Energy 11.2*
6) *Applied Sciences 2.679*
7) *Brazilian Journal of Chemical Engineering*
8) *Ceramics 4.527*
9) *Ceramics International 5.532*

10) *ChemSusChem 8.4*
11) *Clean Energy and Sustainability 2.71*
12) *Crystals, 2.67*
13) *Energy & Fuels 4.654*
14) *Energy Reviews*
15) *Energy Technology 4.149*
16) *Fuel Cells 2.948*
17) *Inorganics*
18) *International Journal of Applied Ceramic Technology*
19) *International Journal of Heat and Mass Transfer 5.584*
20) *International Journal of Hydrogen Energy 7.139*
21) *Ionics, 2.8*
22) *Journal of American Ceramic Society 4.186*
23) *Journal of Cleaner Production 9.297*
24) *Journal of Electrochemical Energy Conversion and Storage 2.012*
25) *Journal of Electrochemical Society (member) 4.316*
26) *Journal of Energy and Power Technology 4.149*
27) *Journal of Fuel Cell Science and Technologies*
28) *Journal of Physics and Chemistry of Solids 3.995*
29) *Journal of Power Sources 9.719*
30) *Journal of Nanomaterials 3.791*
31) *Journal of the European Ceramic Society 5.302*
32) *Materials and Design 9.417*
33) *Nature 69.5*
34) *Nature Energy 67*
35) *Renewable & Sustainable Energy Reviews 16.8*
36) *Reviews in Chemical Engineering 6.299*
37) *Resources, Conservation & Recycling 11.2*
38) *Small 15.153*
39) *Solid State Ionics 3.785*
40) *Sustainability 3.889*

8. Student and Postdoctoral Advisement

Since 2013, Dr. Du has advised 10 postdoctoral scholars, 20 graduate students, 15 undergraduate students and 12 high school students in their research on fuel cell technology, additive manufacturing and related topics.

9. Publications, Patents, Thesis and Major Reports

Books/Chapters, Edited Conference Proceedings Volumes

1. Editors: J.-F. Drillet, Yanhai Du and S. Kolisnychenko, "***Fuel Cells***", (544 pages, ISBN: 9783035715484), Trans Tech Publications Ltd., 2020.
2. Yanhai Du, A. Maar, K. Zhao, "**Development of Advanced Ceramic Fuel Cells using Additive Manufacturing Technology (I): Design and Modeling**", in *Advanced Processing and Manufacturing Technologies for Nanostructured and Multifunctional Materials III: Ceramic Engineering and Science Proceedings*, Editors: M. Fukushima and A. Gyekenyesi, **V.37** (5), pp.74-80, (ISBN-13: 9781119321705), 2017.
3. K.L. Reifsnider, F Rabbi, R Raihan, Q Liu, P Majumdar, Yanhai Du, J.M. Adkins, "**Heterofoam: New Concepts and Tools for Heterogeneous Functional Material Design**", in *Advances in Materials Science for Environmental and Energy Technologies: Ceramic Transactions*, Editors: T. Ohji, M. Singh, E. Hoffman, M. Seabaugh, and Z.G. Yang, **V.236**, pp. 155-164, (ISBN-13: 9781118273425*)*, Wiley, 2012.

4. N.M. Sammes and Yanhai Du, "**Fabrication and Properties of an Anode-Supported Tubular IT-SOFC Based on Lanthanum Gallate**" in *Advances in Solid Oxide Fuel Cells: Ceramic Engineering and Science Proceedings*, **V.26** (4), (*ISBN: 9781574982343*), Editor: N.P. Bansal, John Wiley & Sons, pp.33-40, 2008.
5. N.M. Sammes, Yanhai Du, R. Bove, "**Fuel Cell Principles and Perspectives**" in *Biofuels for Fuel Cells: Renewable Energy from Biomass Fermentation*, 235-247, (ISBN: 1843390922), Editors: P. Lens, P. Westermann, M. Haberbauer and A. Moreno, IWA publishing, 2005.

Patents

6. Yanhai Du, A.M.M. Maar, "**Multifunctional Manifold for Electrochemical Device and Methods for Making the Same**" (*5 claims*), *US Patent*, US 12,155,098, November 26, 2024.
7. Yanhai Du, et al., "**Liquid Fuel Onboard Desulfurization System**", US Utility-Nonprovisional Application, 18/771,537, 07/12/2024
8. Yanhai Du, A.M.M. Maar, "**Multifunctional Manifold for Electrochemical Device and Methods for Making the Same**" (*8 claims*), *US Patent*, US 11,682,777 B2, June 20, 2023.
9. Yanhai Du, "**Universal Tubular Solid Oxide Fuel Cell Testing Kit**", *US Patent,* US 11,296,342 B2, 5 April 2022.
10. Yanhai Du, Hai Feng, "**Custom Fit Face Mask and Method of Making the Same**", *US Patent Application*, Application Number: 63015996, filed date: 27 April 2020.
11. C. Finnerty, Yanhai Du, J. Cai, **"Electrochemical System Having Multiple Independent Circuits"** *US and International Patent*, US 9,281,531 B2, 8 March 2016.
12. Yanhai Du, K. Reifsnider, "**Systems and Methods for Liquid Fuel Desulfurization**", *US and International Patent*, US 9,238,781, 19 January 2016.
13. Yanhai Du, J. Persky, "**Tubular Solid Oxide Fuel Cells**" *US Patent Application*, 15/094,398, 2016.
14. Yanhai Du, C. Finnerty, "**Tubular Electrochemical Cell**", *US and International Patent*, US 8,182,959, 22 May 2012.
15. X. Huang, K.L. Reifsnider, R.O. England, Yanhai Du **"Joints and Methods of Making and Using"** *US Patent Application*, 2006/0172141, 2006.
16. Yanhai Du, N.M. Sammes, R. England, **"Solid State Electrochemical Devices"** *US Patent Application*, 2004/0258972, 2004.
17. N.M. Sammes, Yanhai Du, **"Methods of Manufacture of Electrolyte Tubes for Solid Oxide Devices and the Devices Obtained Therefrom"** *US Patent Application:* 2004/0247973, 2004.
18. C. Finnerty, G. Tompsett, F. Basil, Yanhai Du, **"Segmented Electrode Tubular Solid Oxide Fuel Cell and Method of Manufacture,"** *US and International Patent Application*, WO/2002/031901.

Peer Reviewed and Internationally Referred Journal Articles *(* denotes Corresponding author)*

19. Yanhai Du, **Solid Oxide Cells - The Power of the Gyroid**, *Nature Energy*, accepted, 2025 (IF 60-70)
20. D. Panthi, Yanhai Du, H. Feng, **Extreme Thermal Cycling of Anode-Supported Micro-Tubular Solid Oxide Fuel Cells Using a Novel Test Setup**, *Advanced Energy and Sustainability Research*, accepted, 2025 (IF 6.2)
21. C. Gunathilake*, I. Soliman, D. Panthi, P. Tandler, O. Fatani, NN.A. Ghulamullah1, D. Marasinghe, M. Farahath, T. Madhujith, Ki. Conrad, Yanhai Du*, M. Jaroniec*, **A Comprehensive Review on Hydrogen Production, Storage, and Applications**, *Chemical Society Reviews*, **53**, 10900-10969, 2024. (IF 40-60)
22. D. Panthi1, Yanhai Du*, H. Feng, S. Sahu, I. Soliman, "**Onboard Miniature Jet Fuel Desulfurizer for Mobile Fuel Cell Power Systems**", *Energy Technology*, 2400008, 2024 (IF 3.8).
23. J-S. Park, Y. Sunwoo, D. Chakraborty, C. Gunathilake, Yanhai Du, E-B. Cho*, "**3D interconnected polymer/mesoporous silica nanoparticle hybrid materials with hierarchical macro/meso-structures for heavy metal adsorption**", *New Journal of Chemistry*, 2024 (IF 3.3).
24. I. Soliman, B. Basnet, S.K. Sahu, D. Panthi, Yanhai Du* "**Electrical and Dielectric Spectroscopy Characterization of Molybdenum Dioxide Nanoparticles as a Catalyst for Fuel Cells**", *Heliyon* 9, e2601, 2023. (IF 4).
25. S.M. Amaraweera, C.A. Gunathilake*, O.H.P. Gunawardene, R.S. Dassanayake*, E-B Cho*, Yanhai Du* "**Review: Carbon Capture Using Porous Silica Materials**", *Nanomaterials*, 13, 2050, 2023. (IF 5.719).

26. S. K. Sahu, D. Panthi, I. Soliman, H. Feng, Yanhai Du*, "**Fabrication and Performance of Micro-Tubular Solid Oxide Cells**", *Energies,* 15, 3536, 2022. (IF **3.004**).
27. N. Duan, J. Yang, M. Gao B. Zhang, J-L Luo, Yanhai Du, M. Xu, L. Jia, B. Chi, J. Li, "**Multi-functionalities enabled fivefold applications of $LaCo_{0.6}Ni_{0.4}O_{3-\delta}$ in intermediate temperature symmetrical solid oxide fuel/electrolysis cells**", *Nano Energy*, **77**, 2020. (IF **19.069**).
28. B. Emley, D. Panthi, Yanhai Du, Y. Yao, "**Controlling Porosity of Anode Support in Tubular Solid Oxide Fuel Cells by Freeze Casting**" *J. Electrochemical Energy Conversion and Storage*, Doi: 10.1115/1.4046489, **17**(4), 2020. (IF **2.012**).
29. D. Panthi, N. Hedayat, T. Woodson, B.J. Emley, Yanhai Du*, "**Tubular Solid Oxide Fuel Cells Fabricated by a Novel Freeze Casting Method**", Doi: 10.1111/jace.16781, *J. America Ceramic Society*, **103**(2):878-888, 2019. (IF **3.784**).
30. X. Yang, J. Chen, D. Panthi, B. Niu, L. Lei, Z. Yuan, Yanhai Du, Y. Li, F. Chen, T. He, "**Electron Doping of $Sr_2FeMoO_{6-\delta}$ as High Performance Anode Materials for Solid Oxide Fuel Cells**", *J. Materials Chemistry A*, **7**, 733 –743, 2019. (IF **12.732**).
31. N. Hedayat, D. Panthi, Yanhai Du*, "**Inert Substrate-Supported Microtubular Solid Oxide Fuel Cells Based on Highly Porous Ceramic by Low-Temperature Co-Sintering"**, *Ceramics International*, **45**, 579-587, 2019. (IF **4.527**).
32. D. Panthi, N. Hedayat, Yanhai Du*, "**Densification Behavior of Yttria-Stabilized Zirconia Powders for Solid Oxide Fuel Cell Electrolytes**", *J. Advanced Ceramics*, **7**(4): 325–335, 2018. (IF **6.707**).
33. X. Yang, J. Liu, F. Chen, Yanhai Du, A. Deibel, T. He, "**Molybdenum-based double perovskites A_2CrMoO_{6-d} (A = Ca, Sr, Ba) as anode materials for solid oxide fuel cells**", *Electrochimica Acta,* **290**, 440-450, 2018. (IF **6.901**).
34. Yanhai Du*, N. Hedayat, D. Panthi, H. Ilkhani, B.J. Emley, T. Woodson, "**Freeze Casting Solid Oxide Fuel Cells, A Review"**, *Materialia*, **1**, 198-210, 2018. (Invited Review Article) (IF **8.203**).
35. X. Yang, D. Panthi, N. Hedayat, T. He, F. Chen, W. Guan, and Yanhai Du, "**Molybdenum Dioxide as an Alternative Catalyst for Direct Utilization of Methane in Tubular Solid Oxide Fuel Cells"**, *Electrochemistry Communications,* **86**, 126-129, 2018. (IF **4.724**).
36. N. Hedayat, Yanhai Du*, H. Ilkhani, "**Pyrolyzable Pore-formers for the Porous-Electrode Formation in Solid Oxide Fuel Cells: A Review"**, *Ceramics International,* **44**(5), 4561-4576, 2018. (IF **4.527**).
37. N. Hedayat, D. Panthi, Yanhai Du*, "**Fabrication of Tubular Solid Oxide Fuel Cells by Solvent-Assisted Lamination and Co-firing a Rolled Multilayer Tape Cast**", *International Journal of Applied Ceramic Technology,* **15**, 307-314, 2018. (IF **1.968**).
38. N. Hedayat, D. Panthi, Yanhai Du*, "**Fabrication of Anode-Supported Microtubular Solid Oxide Fuel Cells by Sequential Dip-Coating and Reduced Sintering Steps**", *Electrochimica Acta,* **258**, 694-702, 2017. (IF **6.901**).
39. D. Panthi, B. Choi, Yanhai Du, A. Tsutsumi, "**Lowering the Co-Sintering Temperature of Cathode–Electrolyte Bilayers for Micro-Tubular Solid Oxide Fuel Cells**", *Ceramics International*, **43**, 10698-10707, 2017. (IF **4.527**).
40. N. Hedayat, Yanhai Du*, H. Ilkhani, "**Review on Fabrication Techniques for Porous Electrodes of Solid Oxide Fuel Cells by Sacrificial Template Methods**", *Renewable & Sustainable Energy Reviews*, **77**, 1221-1239, 2017. (IF **14.892**).
41. K. Zhao and Yanhai Du*, "**Calcium-doped ceria materials for anode of solid oxide fuel cells running on methane fuel**", *J. Power Sources*, **347**, 79–85, 2017. (IF **9.127**).
42. N. Hedayat, Yanhai Du*, "**Using Flixweed Seed as a Pore-former to Prepare Porous Ceramics**", *J. Material Sciences & Engineering*, **5**(4), 1000255, 2016. (IF **5.447**).
43. K. Zhao, B.-H. Kim, Yanhai Du, Q. Xu, B.-G. Ahn, "**Ceria Catalyst for Inert-Substrate-Supported Tubular Solid Oxide Fuel Cells Running on Methane Fuel**", *J. Power Sources*, **314**, 10–17, 2016. (IF **9.127**).
44. K. Zhao, B.-H. Kim, Q. Xu, Yanhai Du, and B.-G. Ahn, "**Redox Cycling Performance of Inert-Substrate-Supported Tubular Single Cells with Nickel Anode Current Collector**", *J. Power Sources*, **293**, 336–342, 2015. (IF **9.127**).
45. K. Reifsnider, W. Chiu, K. Brinkman, Yanhai Du, A. Nakajo, F. Rabbi and Q. Liu, "**Multiphysics Design and Development of Heterogeneous Functional Materials for Renewable Energy Devices: the HeteroFoaM Story**", *J. the Electrochemical Society*, **160** (4) F470-F481, 2013. (IF **4.316**).

46. Yanhai Du*, D. Cui, K. Reifsnider and F. Chen, "**Startup Characteristics of Propane-Fueled Solid Oxide Fuel Cell Hot Zones**", *J. the Electrochemical Society*, **159**(6), B723-B728, 2012. (IF **4.316**).
47. Yanhai Du*, D. Cui and K. Reifsnider, "**Characterization of Propane-Fueled SOFC Portable Power Systems**", *Electrochemical and Solid-State Letters*, **15**(5) B1-B5, 2012. (IF **2.321**)**,** later replaced by SSL and EEL).
48. M. Lankin, Yanhai Du*, and C. Finnerty, "**A Review of the Implications of Silica in Solid Oxide Fuel Cells**", *J. Fuel Cell Science & Technologies*, **8**(5), 054001, 2011. (IF **2.012**). Most cited paper of the month, current name: *J. Electrochemical Energy Conversion and Storage*.
49. D. Cui, Yanhai Du*, K. Reifsnider, F. Chen, "**One Thousand-hour Long Term Characteristics of a Propane-Fuelled Solid Oxide Fuel Cell Hot Zone**", *J. Power Sources,* **196**, 6293–6298, 2011. . (IF **9.127**).
50. P.K. Cheekatamarla, C.M. Finnerty, Yanhai Du, J. Jiang, J. Dong, P.G. DeWald, C.R. Robinson, "**Advanced tubular solid oxide fuel cells with high efficiency for internal reforming of hydrocarbon fuels**", *J. Power Sources,* **188**(2), 521-526, 2009. (IF **9.127**).
51. Yanhai Du*, C. Finnerty and J. Jiang, "**Thermal Stability of Portable Microtubular SOFCs and Stacks**", *J. the Electrochemical Society*, **155**(9), B972-B977, 2008. (IF **4.316**).
52. N.M. Sammes, Yanhai Du, "**Fabrication and Characterization of Tubular Solid Oxide Fuel Cells**", *International J. Applied Ceramic Technology*, **4**(2), 89-102, 2007. (IF **1.968**).
53. N.M. Sammes, R. Bove, Yanhai Du, "**Assembling Single Cells to Create a Stack: The Case of a 100W Microtubular Anode-Supported Solid Oxide Fuel Cell Stack**", *J. Materials Engineering and Performance*, **15**(4), 463-467, 2006. (IF **1.819**).
54. N.M. Sammes, Yanhai Du and R. Bove, "**Design and Fabrication of a 100 W Anode Supported Micro-Tubular SOFC Stack**", *J. Power Sources*, **145** (Aug) 428-434, 2005. (IF **9.127**).
55. X. Xue, J. Tang, Yanhai Du and N. Sammes, "**Dynamic Modeling of Single Tubular SOFC Combining Heat/Mass Transfer and Electrochemical Reaction Effects**", *J. Power Sources*, **142**(1-2), 211-222, 2005. (IF **9.127**).
56. G. Ju, K. Reifsnider, X. Huang, Yanhai Du, "**Time Dependent Properties and Performance of a Tubular Solid Oxide Fuel Cell**", *J. Fuel Cell Science and Technology*, **1**(1), 35-42, 2004. (IF **2.012**). current name: *Journal of Electrochemical Energy Conversion and Storage*.
57. Yanhai Du and N.M. Sammes, "**Fabrication and properties of anode-supported tubular solid oxide fuel cells**", *J. Power Sources*, **136** (1) 66-71, 2004. (IF **9.127**).
58. Yanhai Du*, N.M. Sammes, G.A. Tompsett, D. Zhang, J. Swan and M. Bowden**,** "**Extruded Tubular Strontium- and Magnesium-Doped Lanthanum Gallate, Gadolinium-Doped Ceria, and Yttria-Stabilized Zirconia Electrolytes: Mechanical and Thermal Properties**" *Journal of Electrochemical Society*, **150** (1) A74-78, 2003. (IF **4.316**).
59. Yanhai Du*, N.M. Sammes, "**Fabrication and Performance of $LaGaO_3$-Based Tubular SOFC's"**, *International Journal of Ionics*, **9**(1&2), 7-14, 2003. (IF **2.817**).
60. Yanhai Du, N.M. Sammes, "**Electrical Performance of $LaGaO_3$-Based Tubular SOFCs"**, *J. University of Science and Technology of China*, **32**, 38-48, 2002.
61. Yanhai Du*, N.M. Sammes, **"Fabrication of Tubular Electrolytes for Solid Oxide Fuel Cells using Strontium- and Magnesium-doped $LaGaO_3$ Materials",** *J. the European Ceramic Society*, **21** (6), 727-735, 2001. (IF **5.302**).
62. Yanhai Du*, N.M. Sammes, and G.A. Tompsett, "**Optimisation Parameters for the Extrusion of Thin YSZ Tubes for SOFC Electrolyte**", *J. the European Ceramic Society*, **20** (7), 959-965, 2000. (IF **5.302**).
63. Yanhai Du, N.M. Sammes, G.A. Tompsett, and Y. Zhang, "**Phase Stability of Bismuth Lead Antimony Oxide**", *Solid State Ionics*, **117**, 291-299, 1999. (IF **3.875**).
64. Y. Zhang, N. Sammes, and Yanhai Du, "**The Use of X-ray Analysis in Determining the Crystal Structure in Φ-Bi8Pb5O17**", *Solid State Ionics*, **124**, 179-184, 1999. (IF **3.875**).
65. Yanhai Du, N.M. Sammes, and G.A. Tompsett, **"Phase Transition Temperatures of $Bi_8Pb_5O_{17}$",** *J. Australasian Ceramic Society*, **34** (1) 124-129, 1998.
66. Du Yanhai, "**The Development Problems Existing in Our Architectural Ceramic Industry and its Main Tasks Ahead,**" *China Ceramic Industry*, **1**(1), 7-9, 1994.
67. Du Yanhai; Feng Jiarong, "**On the Change of Spinel in Magnesia-Chromite Brick Used in VOD Refining Furnaces**," *China's Refractories*, **2**(4), 29-31, 1993.

68. Du Yanhai, "**Analysis on Technique Importation and its Digestion and Absorption Problems about Sanitary and Ceramic Kiln**," *Ceramic*, **102**(2), 14-19, 1993.

Conference Proceedings, Presentations, and Posters *(* Corresponding author)*

69. C. Gunathilake, Yanhai Du, Ibrahim Soliman, "**La, Zr, Ce, Mg Incorporated Amidoxime Functionalized Graphene Oxide for CO_2 Capture at Elevated Temperature**", American Chemical Society Fall Meeting, Denver, CO, August 18–22, 2024.
70. C. Gunathilake, Yanhai Du, Ibrahim Soliman, "**Development of La and Mg Incorporated Amidoxime Functionalized 3D Solid Sorbents CO_2 Capture and Conversion to Energy Form Methanol**", 28th Annual Green Chemistry & Engineering Conference, Atlanta, Georgia, June 2-5, 2024.
71. C. Gunathilake, M. Jaroniec, Yanhai Du, **Synthesis of Magnesium Oxide Nanoparticles Fabricated on a Graphene Oxide Nanocomposite for CO_2 Sequestration at Elevated Temperatures,** (Oral) Presented at 28th Annual Green Chemistry & Engineering Conference (ACS), Atlanta, GA, June 2-5, 2024.
72. Y. Liu, M. Hu, Y. Guo, Yanhai Du, X. Chen, R. Liu*, **"Smart Hybrid Power Supply for UAV Agility Enhancement Using Deep Neural Networks**", *IEEE International Conference on Robotics and Automation (ICRA2024)*, Yokohama, Japan, May 13-17, 2024.
73. Yanhai Du*, T. Woodson, and D. Panthi, "**Fabrication and Characterization of Freeze-Cast Tubular Solid Oxide Cells**", *ECS Transactions*, 18th International Symposium on Solid Oxide Fuel Cells, Boston, MA, May 28-June 2, 2023
74. S. K. Sahu, D. Panthi, and Yanhai Du*, "**Process Optimization to Develop Ceramic Coating on Porous Tubular Metal Support**", *ECS Transactions*, 18th International Symposium on Solid Oxide Fuel Cells, Boston, MA, May 28-June 2, 2023
75. D. Panthi, and Yanhai Du, "**Sintering of Protonic Ceramics for Tubular Solid Oxide Fuel Cells**", *ECS Transactions*, 18th International Symposium on Solid Oxide Fuel Cells, Boston, MA, May 28-June 2, 2023
76. Yanhai Du*, D. Panthi, (*Invited*), "**Tubular Solid Oxide Cell Testing**," *20th International Symposium on Solid Oxide Cells (SOC): Materials, Science and Technology*, Daytona Beach, Florida, January 22 - 27, 2023.
77. S.K. Sahu, Yanhai Du*, D. Panthi, "**Fabrication of Micro-Tubular Metal Supported Solid Oxide Fuel Cells**," *20th International Symposium on Solid Oxide Cells (SOC): Materials, Science and Technology*, Daytona Beach, Florida, January 22 - 27, 2023.
78. Yanhai Du*, D. Panthi, H. Feng, S.K. Sulata, I. Soliman, "**Onboard Desulfurization of Jet Fuel for Fuel Cell Applications**," *20th International Symposium on Solid Oxide Cells (SOC): Materials, Science and Technology*, Daytona Beach, Florida, January 22 - 27, 2023.
79. D. Panthi, Yanhai Du, (*Invited*), "**Fabrication Strategies for Lightweight and High-Performance Tubular Solid Oxide Fuel Cells**," *Materials Science & Technology 2022* (MS&T22), Pittsburgh, PA, October 9-12, 2022.
80. Y. Liu, X. Chen, Yanhai Du, R. Liu*, **"Motion-Aware Intelligent Power Supply for UAV Agility Enhancement in Dynamic Environment"**, IEEE *International Conference on Robotics and Automation*, May 23-17, 2022.
81. Yanhai Du, D. Panthi*, H. Feng, "**Jet Fuel Desulfurization for Portable Solid Oxide Fuel Cell Applications**", *17th International Symposium on Solid Oxide Fuel Cells*, July 18-23, 2021.
82. Yanhai Du*, D. Panthi, S. Sahu, H. Feng, and P. Baker, "**Design and 3D Printing of Controllable and Gradient Porous Supports for Solid Oxide Fuel Cells**", *17th International Symposium on Solid Oxide Fuel Cells*, July 18-23, 2021.
83. H. Feng, D. Phanthi and Yanhai Du*, "**Improving Current Collection of Tubular Solid Oxide Fuel Cells**", *17th International Symposium on Solid Oxide Fuel Cells*, July 18-23, 2021.
84. S. Sahu, D. Panthi, H. Feng and Yanhai Du*, "**Investigation of Reversible Solid Oxide Fuel Cells with Various Tubular Anode Supports and Electrolyte Materials**", *17th International Symposium on Solid Oxide Fuel Cells*, July 18-23, 2021.
85. N. Hedayat and Yanhai Du*, "**Micro-Tubular Solid Oxide Fuel Cells with One Closed-End Fabricated Via Dip-Coating and Co-Firing**", *17th International Symposium on Solid Oxide Fuel Cells*, July 18-23, 2021.
86. E. Dan and Yanhai Du*, "**Design and Fabrication of a Functionally Gradient SOFC Electrode with Controllable Porous Microstructure**", *17th International Symposium on Solid Oxide Fuel Cells*, July 18-23, 2021.

87. Yanhai Du*, O.S. Fatoba, H. Feng, "**3D Printing Solid Oxide Fuel Cells**", *44th International Conference and Exposition on Advanced Ceramics and Composites*, Daytona Beach, FL, USA, January 26-31, 2020.
88. D. Panthi, H. Feng, Yanhai Du, "**Extreme Thermal Cycling of Micro-Tubular Solid Oxide Fuel Cells Using a Miniature Ceramic Heater**", *44th International Conference and Exposition on Advanced Ceramics and Composites*, Daytona Beach, FL, USA, January 26-31, 2020.
89. T. Woodson, Yanhai Du*, "**Freeze Casting and Freeze Drying of Tubular Solid Oxide Fuel Cell Supports**", *44th International Conference and Exposition on Advanced Ceramics and Composites*, Daytona Beach, FL, USA, January 26-31, 2020.
90. O.S. Fatoba, Yanhai Du*, "**Influence of Process Parameters on the Microstructure and Surface Properties of Laser Additive Manufactured Ti-6Al-4V Composite**", *44th International Conference and Exposition on Advanced Ceramics and Composites*, Daytona Beach, FL, USA, January 26-31, 2020.
91. O.S. Fatoba, Yanhai Du*, "**Microstructural Enhancement and Performance of Additive Manufactured Ti-6Al-4V Composite Coatings**", *44th International Conference and Exposition on Advanced Ceramics and Composites*, Daytona Beach, FL, USA, January 26-31, 2020.
92. Yanhai Du*, H. Feng, "**Improving Anode Current Collection of Anode Supported Tubular Solid Oxide Fuel Cells**", *44th International Conference and Exposition on Advanced Ceramics and Composites*, Daytona Beach, FL, USA, January 26-31, 2020.
93. N. Hedayat, Yanhai Du*, "**Tubular Solid Oxide Fuel Cells Fabricated by Tape-Casting and Dip-Coating Methods**"*, 16th International Symposium on Solid Oxide Fuel Cells*, Kyoto, Japan, September 8–13, 2019.
94. Yanhai Du*, O. S. Fatoba, "**Additive Manufacturing of Advanced Solid Oxide Fuel Cells – A Review**"*, 16th International Symposium on Solid Oxide Fuel Cells*, doi: 10.1149/09101.0277ecst, Kyoto, Japan, September 8–13, 2019.
95. Yanhai Du, P. Cheekatamarla, "**A Bumpy SOFC Road and Hopeful Future**"*, 17th International Conference on Clean Energy*, Shenyang, China, August 9-12, 2019. And presented at the *16th International Symposium on Solid Oxide Fuel Cells*, doi: 10.1149/09101.0179ecst, Kyoto, Japan, September 8–13, 2019.
96. Yanhai Du, "**A Bridge from Fossil Fuels to Renewable Energy – Solid Oxide Fuel Cell**"*, 2019 International Forum on Clean Power Technologies & Engineering*, Beijing, China, May 16-17, 2019.
97. Yanhai Du, N. Hedayat and D. Panthi, "**Can Fuel Cells Make our World Cleaner?**"*, International Congress on Sustainability Science & Engineering*, Cincinnati, OH, USA, August 12-15, 2018.
98. Yanhai Du, N. Hedayat and D. Panthi, "**Freeze-Casting & Freeze-Drying Processes for SOFC Applications – A Review**"*, 5th Asian Solid Oxide Fuel Cells Conference*, Shanghai, China (Keynote), August 5-9, 2018.
99. Yanhai Du, J. Persky, K. Zhao, H. Ilkhani, T. Woodson, B. Emley, N. Hedayat, "**Fabrication and Characterization of Freeze-Cast Tubular Solid Oxide Fuel Cells**", *Fifteenth International Symposium on Solid Oxide Fuel Cells*, Hollywood, Florida, July 14, 2017.
100. X. Yang, X. Han, T. He, Yanhai Du*, "**Enhanced Stability of Ta^{5+} and Fe^{3+} Co-doped $BaCoO3_{-\delta}$ as a Cathode Material for IT-SOFCs**", *Fifteenth International Symposium on Solid Oxide Fuel Cells*, Hollywood, Florida, July 14, 2017.
101. N. Hedayat, D. Panthi, Yanhai Du*, "**A Novel Method to Fabricate Inert Substrate-Supported Microtubular Solid Oxide Fuel Cells by Selective Leaching**", *Fifteenth International Symposium on Solid Oxide Fuel Cells*, Hollywood, Florida, July 14, 2017.
102. B. Emley, T. Woodson, A. Bose, Yanhai Du*, "**Freeze Cast T-SOFCs and a Universal Electrochemical Testing Fixture**", *Fifteenth International Symposium on Solid Oxide Fuel Cells*, Hollywood, Florida, July 14, 2017.
103. D. Panthi, N. Hedayat, and Yanhai Du*, "**A Comparative Study on the Densification Behavior of Yttria-Stabilized Zirconia Electrolyte Powders**", *Fifteenth International Symposium on Solid Oxide Fuel Cells*, Hollywood, Florida, July 14, 2017.
104. Yanhai Du, "**Can Fuel Cells Make Airports Greener?**" *25th Annual National Aviation Environmental Management Conference*, Detroit, Michigan, June 5-7, 2016.

105. Yanhai Du, A. Maar, and K. Zhao, "**Development of Advanced Ceramic Fuel Cells using Additive Manufacturing Technology (I): Design and Modeling**", *International Conference and Exposition on Advanced Ceramics and Composites*, Daytona Beach, FL, USA, January 24-19, 2016.
106. K. Zhao and Yanhai Du*, "**Improved Redox Stability of Novel Inert-Substrate Supported Tubular Single Cells**", *International Conference and Exposition on Advanced Ceramics and Composites*, Daytona Beach, FL, USA, January 24-19, 2016.
107. J. Persky, Yanhai Du*, K. Zhao, "**Fabrication and Characterization of Freeze Cast Tubular Solid Oxide Fuel Cells**", *International Conference and Exposition on Advanced Ceramics and Composites*, Daytona Beach, FL, USA, January 24-19, 2016.
108. Yanhai Du, "**Solid Oxide Fuel Cells: Green and Sustainable Energy Systems**", *AASHE 2015 Conference & Expo: Transforming Sustainability Education, Minneapolis*, Minnesota, October 25-28, 2015.
109. T. Woodson and Yanhai Du*, "**Clean Energy Technology: Freeze Casting Tubular Solid Oxide Fuel Cells**", *Ohio Fuel Cell Symposium*, Elyria, Ohio, June 15, 2015, and Kent State University *Undergraduate Research Symposium*, Kent, Ohio, March 11, 2015. http://digitalcommons.kent.edu/ugresearch/2015/Physics_Chem/4/
110. A. Maar and Yanhai Du*, "**Additive Manufacturing of Advanced Solid Oxide Fuel Cells**", *Ohio Fuel Cell Symposium*, Elyria, Ohio, June 15, 2015.
111. K. Zhao and Yanhai Du*, "**Functionally Graded Electrode with Acicular Pores Fabricated by Freeze-Drying**", *Ohio Fuel Cell Symposium*, Elyria, Ohio, June 15, 2015.
112. Yanhai Du, D. Cui, K. Reifsnider, J. Persky, N. Palumbo, P. Osenar, "**From JP-8 Fuel to Solid Oxide Fuel Cell Portable Power"**, *Fuel Cell Seminar & Exposition*, Columbus, Ohio, October 23, 2013.
113. Yanhai Du, "**Super-High Volumetric Power Density SOFC Module**", *Fuel Cell Seminar & Exposition*, Mohegan Sun, Connecticut, November 6, 2012.
114. K. Reifsnider, Yanhai Du, W. Chiu, and K. Brinkman, "**Integrative Multiphysics Development of Material Systems for a Renewable Future: The HeteroFoaM Story",** *PRiME 2012-Renewable Fuels from Sunlight and Electricity*, Honolulu, Hawaii, October 7-12, 2012.
115. Yanhai Du, D. Cui and K. Reifsnider, "**Portable Solid Oxide Fuel Cell Power Systems**", *South Carolina SmartState Program Conference*, Charleston, SC, December 2011.
116. Yanhai Du, D. Cui, K. Reifsnider, "**Portable Solid Oxide Fuel Cell Power Systems Operated on Propane**", *Low Carbon Earth Summit*, Dalian, China, October 22, 2011.
117. Yanhai Du, D. Cui, K. Reifsnider, "**SOFC Portable Power Systems**", *International Symposium on SOFC Technology,* Ningbo, China, November 9-12, 2011.
118. Yanhai Du, D. Cui and K. Reifsnider, "**Characterization of Propane-Fueled SOFC Portable Power Systems**", *ECS Transactions* – **35** (1), 167-178, "Solid Oxide Fuel Cells 12 (SOFC-XII)", Montreal, Canada, 2011.
119. Yanhai Du, D. Cui, K. Reifsnider and F. Chen, "**Startup Characteristics of Propane-Fueled Solid Oxide Fuel Cell Hot Zones**", *ECS Transactions* – **35** (1), 2735-2744, "Solid Oxide Fuel Cells 12 (SOFC-XII)", Montreal, Canada, 2011.
120. D. Cui, Yanhai Du, K. Reifsnider and F. Chen, "**Environmental Effects on a Thermally Self-Sustained SOFC Hot Zone**", *ECS Transactions* – **35** (1), 297-312, "Solid Oxide Fuel Cells 12 (SOFC-XII)", Montreal, Canada, 2011.
121. C. Zuo, Yanhai Du, C. Finnerty, P. Cheekatamarla, J. Dong, J. Jiang, W. Huang, M. Lankin and R. Sharp, **"Advanced Anode-supported Micro-tubular SOFC Development**", *ECS Transactions* - 2008 Fuel Cell Seminar & Exposition - Solid Oxide Fuel Cell Posters, Volume 17, March 2009.
122. Yanhai Du, C. Finnerty and J. Jiang, "**Thermal Stability of Portable Microtubular SOFCs and Stacks**", *ECS Trans*. **12**, (1) 363 (2008).
123. P.K. Cheekatamarla, C.M. Finnerty, Yanhai Du, Y. Lu, C.L. Robinson, P.G. DeWald, and S. Andrews "**Performance Characteristics of an Integrated Portable JP8 SOFC - Reformer System**", *ECS Trans*. 5, (1) 453 (2007).
124. C. Finnerty, Yanhai Du, B.J. Emley, P. Cheekatamarla, W. Zhu, J. Cai, and R. Sharp "**Geometric Effects on Tubular Solid Oxide Fuel Cells**", *ECS Transactions* - Solid Oxide Fuel Cells, 7 (1) 589 (2007).
125. C. Finnerty, C. Robinson, S. Andrews, Yanhai Du, P. Cheekatamarla, P. DeWald, Y. Lu, and T. Schwartz "**Portable Propane Micro-Tubular SOFC System Development**" *ECS Transactions* - Solid Oxide Fuel Cells, 7, (1) 483 (2007).

126. Yanhai Du, C. Finnerty, J. Jiang, **"Thermal Stability of Portable Micro-Tubular Solid Oxide Fuel Cell and Stack",** *The Fuel Cell Seminar*, San Antonio, TX, October 15-19, 2007.
127. P.K. Cheekatamarla, C.M. Finnerty, J. Cai, and Yanhai Du, "**Internal Reforming of Hydrocarbon Fuels in Tubular Solid Oxide Fuel Cells**" *The Fuel Cell Seminar*, San Antonio, TX, October 15-19, 2007.
128. P.K. Cheekatamarla, C.M. Finnerty, Yanhai Du, Y. Lu, C.L. Robinson, P.G. DeWald, and S. Andrews "**Performance Characteristics of an Integrated Portable JP8 SOFC - Reformer System**", *ECS Transactions*, Volume 5, March 2007.
129. C.Finnerty, Yanhai Du, B.J. Emley, P. Cheekatamarla, W. Zhu, J. Cai, and R. Sharp "**Geometric Effects on Tubular Solid Oxide Fuel Cells**", *ECS Transactions*, Volume 5, March 2007.
130. C. Finnerty, C. Robinson, S. Andrews, Yanhai Du, P. Cheekatamarla, P. DeWald, Y. Lu, and T. Schwartz "**Portable Propane Micro-Tubular SOFC System Development**", *ECS Transactions*, Volume 5, March 2007.
131. X. Huang, K. Ridgeway, S. Narasimhan, Yanhai Du, K. Reifsnider, C. Ma, F.g Shu "**Low-Cost Integrated Composite Seal for SOFC: Materials and Design Methodologies**", *SECA Core Technology Meeting*, 2005.
132. N.M. Sammes, Yanhai Du and R. Bove, **"Design and Fabrication of a 100W Anode Supported Micro-Tubular SOFC Stack",** *9th Grove Fuel Cell Symposium*, London, UK, October 4-6, 2005.
133. N.M. Sammes, Yanhai Du, **"Fabrication of an Anode Supported Tubular SOFC System",** *Proceedings-Electrochemical Society,* Volume 2005-07, PP 380-390, 2005.
134. Yanhai Du and N.M. Sammes, "**Intermediate-Temperature SOFCs with All-Perovskite Materials, Part One: Interactions between LSGM Electrolyte and LSCM Anode**", *Proceedings-Electrochemical Society,* 2005.
135. Yanhai Du and N.M. Sammes, "**Interactions and compatibilities of LSGM electrolyte and LSGM anode**", submitted to *5th International Symposium on Ionic and Mixed Conducting Ceramics*, Honolulu, Oct.3-8, 2004.
136. Yanhai Du, N.M. Sammes and B. Eberly, "**Anode Supported Tubular SOFC Systems: Fabrication and Properties**", in *Proceedings of 6th European Solid Oxide Fuel Cell Forum*, ed. M. Mogensen, volume 1, p125, Lucerne, Switzerland, June 28-July 2, 2004.
137. A. Samant, N.M. Sammes and Yanhai Du, "**Properties Of Doped Lanthanum Cobaltite With Various Alumina Additions As a Potential IT-SOFC Cathode**", ", in *Proceedings of 6th European Solid Oxide Fuel Cell Forum*, ed. M. Mogensen, volume 1, p1295, Lucerne, Switzerland, June 28-July 2, 2004.
138. Yanhai Du and N.M. Sammes, "**Fabrication and Characterization of Tubular Solid Oxide Fuel Cells**", *First International Conference on Fuel Cell Development and Deployment*, Storrs, Connecticut, USA, March 7-10, 2004.
139. Yanhai Du, N.M. Sammes and R. England, "**A Novel Design Concept to Increase Tubular Stack Volumetric Power Density and Fuel Efficiency**", *First International Conference on Fuel Cell Development and Deployment*, Storrs, Connecticut, USA, March 7-10, 2004.
140. N.M. Sammes and Yanhai Du, "**The Mechanical Properties of Electrolyte and Electrode Supported Tubular Solid Oxide Fuel Cells**", First International Conference on Fuel Cell Development and Deployment, Storrs, Connecticut, USA, March 7-10, 2004.
141. K. Gupta, Yanhai Du, A. Jena and N.M. Sammes, "**Porosity Characterization of Anode Support for Solid Oxide Fuel Cells**", *First International Conference on Fuel Cell Development and Deployment*, Storrs, Connecticut, USA, March 7-10, 2004.
142. N.M. Sammes, Yanhai Du, R. England, "**Anode-Supported Tubular SOFC's for use in Electric Vehicles**", *First International Conference on Fuel Cell Development and Deployment*, Storrs, Connecticut, USA, March 7-10, 2004.
143. N.M. Sammes, Yanhai Du, N. Padture, M. Wei, X. Huang, G. Ju, J. Wu, and K. Reifsnider, "**Synthesis, Fabrication and Modeling of Novel Intermediate-Temperature Micro-Tubular SOFCs**", *First International Conference on Fuel Cell Development and Deployment*, Storrs, Connecticut, USA, March 7-10, 2004.
144. Yanhai Du, **"Extrusion Die Design for Manufacturing Tubular Solid Oxide Fuel Cells"***, 8th Grove Fuel Cell Symposium*, ExCel, London, UK, September 24-26, 2003.
145. N.M. Sammes, K. Reifsnider, R. England, X. Huang, Yanhai Du and A. Smirnova, "**The Role of Fuel Cells in a Secure Power Infrastructure**", *International Conference on Advanced Technologies for Homeland Security*, Storrs, Connecticut, USA, September 25-26, 2003.
146. Yanhai Du, X. Huang, N.M. Sammes, K. Reifsnider, A.L. Smirnova, "**Fabrication and Performance Evaluation of Micro-Tubular SOFCs Using Doped-Lanthanum Gallate Electrolytes**", *5th Gordon Conference on Fuel Cells*, Rhode Island, USA, July 27- August 1, 2003.

147. Yanhai Du and N.M. Sammes, "**Fabrication and Performance of a small SOFC Stack Using Doped Lanthanum Gallate Electrolyte**", in *Proceedings of Eighth International Symposium on Solid Oxide Fuel Cells (SOFC VIII)*, Paris, April 28-May 2, 2003. Electrochemical Society Proceedings Volume 2003-07, p1119-1125.
148. Yanhai Du, N.M. Sammes, R. England, "**Novel SOFC Tubular Design Configurations**", in *Proceedings of Eighth International Symposium on Solid Oxide Fuel Cells (SOFC VIII)*, Paris, April 28-May 2, 2003. Electrochemical Society Proceedings Volume 2003-07, p1077-1081.
149. V. Mandakolathur, Yanhai Du, and N.M. Sammes, "**Direct Methane Oxidation in Micro-Tubular SOFCs Using Doped $LaGaO_3$ Electrolyte**", in *Proceedings of Eighth International Symposium on Solid Oxide Fuel Cells (SOFC VIII)*, Paris, April 28-May 2, 2003. Electrochemical Society Proceedings Volume 2003-07, p1170-1175.
150. Yanhai Du, N.M. Sammes, "**Electrical Performance of $LaGaO_3$-Based Tubular SOFCs"**, plenary talk at the *International Workshop on Solid Electrochemical Devices for Energy Conversion & the 11th National Conference on Solid State Ionics*, Hefei, China, October 14-19, 2002.
151. Yanhai Du, N.M. Sammes, "**Fabrication and Performance of $LaGaO_3$-Based Tubular SOFC's,"** presented at the *9th EuroConference on Science and Technology of Ionics*, Greece, 2002.
152. Yanhai Du, N.M. Sammes, G.A. Tompsett, and M. Bowden**,** "**Comparison of Mechanical and Thermal Properties of the Tubular LSGM, CGO, and YSZ Electrolytes,**" in *Proceedings of the 7th International Symposium on Solid Oxide Fuel Cells (SOFC-VII),* ed S.C. Singhal, H. Tagawa, *Electrochemical Proceedings Volume 2001-16,* pp.311-320, The Electrochemical Society, Inc. Pennington, NJ, 2001.
153. Yanhai Du and N.M. Sammes, "**Microstructural and Mechanical Properties of Extruded Doped-Lanthanum Gallate Electrolytes**", in *Proceedings of the 4th European Solid Oxide Fuel Cell Forum*, Lucerne, Switzerland, pp.783-792, 2000.
154. Yanhai Du and N.M. Sammes, **"Microstructure and Mechanical Properties of Extruded LSGM Electrolyte"**, in *Proceedings of the 6th Annual New Zealand Engineering and Technology Post-Graduate Student Conference*, Auckland, December, pp.189-194, 1999.
155. Yanhai Du, and N.M. Sammes, **"$LaGaO_3$-based Electrolyte Tubular SOFC Fabrication,"** in *Proceedings of the 5th Annual New Zealand Engineering and Technology Postgraduate Conference*, ed B. Teekman, P. Milliken, and N. Body, Messey, New Zealand, November 1998.
156. N.M. Sammes, Yanhai Du and G.A. Tompsett, "**Effect of Sb_2O_3 Dopant Concentration on the Phase Equilibria and Stability of $Bi_8Pb_5O_{17}$ Electrolytes,**" in *Proceedings of the Fifth International Symposium on Solid Oxide Fuel Cells (SOFC-V*), ed U. Stimming, S.C. Singhal, H. Tagawa, W. Lehnert, *Electrochemical Society*, **97-**40, 1051-1056, 1997.
157. Yanhai Du and N.M. Sammes, "**Phases Present in the Bismuth Lead Antimony Oxide System,**" in *Proceedings of the 4th Annual New Zealand Engineering and Technology Post-Graduate Student Conference*, Hamilton, July, 17-21, 1997.
158. Yanhai Du and K. Pickering, **"The Effect of Manufacturing Conditions on the Properties of Cement Castables**," in *Proceedings of the 4th Annual New Zealand Engineering and Technology Post Graduate Student Conference*, Hamilton, July 1997.

Invited Talks, Seminars and Guest Lectures

159. Yanhai Du, "**The Role of Fuel Cells and Hydrogen for Clean Energy and Carbon Neutrality**", *China University of Mining & Technology,* Beijing, China, November 17, 2022.
160. Yanhai Du, (*Panel Moderator*) "**Panel: Shaping the Future of Energy Storage Through Ceramic Optimization**", *Ceramic Expo & Conference,* Cleveland, OH, USA, August 29-31, 2022.
161. Yanhai Du (*Panelist*), "**Fly Greenly**", *Farnborough International Airshow*, London, U.K. July 25-29, 2022.
162. Yanhai Du, "**Enabling Carbon Neutrality with Sustainable Energy Technologies**", *Changzhou University of Technology,* Changzhou, China, June 8, 2022.
163. Yanhai Du, "**Fuel Cell: A Bridge to A Sustainable Energy Future**", *Northeast Ohio Manufacturing for EV Conference*, Kent, Ohio, USA, April 13, 2022.
164. Yanhai Du, "**Sharpen Your Edge, Follow Your Passion - the Fuel Cell Story**", *Seminar at Case Western Reserve University – Student Chapter of Electrochemical Society*, Cleveland, OH, November 29, 2017.
165. Yanhai Du, "**What If … Fuel Cells and Sustainability**", *Qingdao University*, 18 May 2017; and *University of Electronic Science and Technology of China,* 23 May 2017.

166. Yanhai Du, (Panelist) "**Application of Additive Manufacturing to Advance Ceramic Fuel Cells**", *Ceramic Expo & Conference,* Cleveland, OH, USA, April 26-28, 2016.
167. Yanhai Du (Keynote) "**New Uses for Fuel Cells**", *Kent State University Aeronautics Fair*, Kent, OH, 2016
168. Yanhai Du, "**Fuel Cells' Roles in the Sustainable Energy Era**", Harbin Institute of Technology, December 23, 2014. And at China University of Geosciences (Beijing), December 20, 2014.
169. Yanhai Du, "**Tubular Solid Oxide Fuel Cell -A Fuel-Flexible and Efficient Fuel Cell Technology for Portable Applications**", *Case Western Research University*, September 9, 2014.
170. Yanhai Du, "**Fuel-Flexible and Efficient Fuel Cell Technologies**", The Akron Section of The American Chemical Society, March 12, 2014. *And* at NASA Glenn Research Center, December 17, 2013.
171. Yanhai Du, "**Overview of Solid Oxide Fuel Cells**", Tuscarawas Campus, Kent State University, November 21, 2013.
172. Yanhai Du, "**Portable SOFC Systems and New Cell Microstructure**", Shanghai Institute of Ceramics, Chinese Academy of Science, November 9, 2011.
173. Yanhai Du, "**Solid Oxide Fuel Cell - a Fuel Flexible and High Efficient Energy Technology**", Tsinghua University, November 4, 2011.
174. Yanhai Du, "**From Coal to Electricity without Combustion - Solid Oxide Fuel Cell Technology**", China University of Geosciences, November 2, 2011.
175. Yanhai Du, "**Tubular Solid Oxide Fuel Cell Technologies**", Dalian Institute of Chemical Physics, Chinese Academy of Science, October 24, 2011.