

## ABSTRACTS AND PRESENTATIONS

1. Deshmane V., Abrokwah, R. and Kuila, D. "Highly Selective H<sub>2</sub> Production Via Methanol Steam Reforming Using Cu-MCM-41 Catalysts" AIChE Annual Meeting, Atlanta, Georgia, **2014**, Abstract Accepted.
2. Abrokwah R., Deshmane V., Owen S. Dade, W. Al-Salihi S., Kuila, D. "Characterization and H<sub>2</sub> Production Performance of Cu and Zn Encapsulated MCM-41, TiO<sub>2</sub> and CeO<sub>2</sub> Catalysts" AIChE Annual Meeting, Atlanta, Georgia, **2014**, Abstract Accepted
3. Owen S., Deshmane V., Abrokwah R. and Kuila D. "Mesoporous TiO<sub>2</sub> Supported Catalysts: Effect of Metal-Support Interactions on Steam Reforming of Methanol." 248<sup>th</sup> ACS National Meeting & Exposition, San Francisco, CA, **2014**. Abstract Accepted.
4. Abrokwah R., Deshmane V., and Kuila D. MCM-41 "Supported Mono-metallic Catalysts for H<sub>2</sub> production via Methanol Steam Reforming" 248<sup>th</sup> ACS National Meeting & Exposition. San Francisco, CA, **2014**. Abstract Accepted.
5. Fadhel A., Sultana K., Deshmane V., Kuila D., and Ilias S. "Development of Ordered Mesoporous Carbon Supported Low Pt Loading Electrocatalysts" 248<sup>th</sup> ACS National Meeting & Exposition. San Francisco, CA, **2014**. Abstract Accepted.
6. Dangubie M., Ogbole E., Lou J., Ilias S., and Kuila D. "Development of Low-Humidity High-Temperature Proton Conducting Membranes for PEMFC" 248<sup>th</sup> ACS National Meeting & Exposition. San Francisco, CA, **2014**. Abstract Accepted.
7. Deshmane V., Owen, S, Abrokwah R. and Kuila D. "Synthesis and characterization of Cu-Ni/TiO<sub>2</sub> for steam reforming of methanol." 247<sup>th</sup> ACS National Meeting & Exposition, Dallas, TX. **2014**; ENFL-329.
8. Abrokwah R., Deshmane V., and Kuila D. "One pot hydrothermal synthesis of high surface area Co-Pd/MCM-41 bimetallic catalysts: Characterization and application for hydrogen production." 247<sup>th</sup> ACS National Meeting & Exposition, Dallas, TX. **2014**; CATL-168.
9. Abrokwah R., Deshmane V., and Kuila D. "Synthesis and characterization of Cu-Ni/MCM-41 bimetallic catalysts for steam reforming of methanol." 247<sup>th</sup> ACS National Meeting & Exposition, Dallas, TX. **2014**, CATL-255.
10. K Kosaraju, A Rahman, M Duncan, B Tatineni, Y Basova, V Deshmane, "Bimetallic nanocatalysts in mesoporous silica for steam reforming reactions to produce H<sub>2</sub> for fuel cells" Future Energy, Environment, and Materials 88, 337, **2014**.
11. K. Kosaraju, K. Womack, D. Kuila, "Proliferation and viability of HepG2 cells on immobilized gastrin releasing peptide nanostructure" Abstracts of Papers, 244<sup>th</sup> ACS National Meeting, Philadelphia, PA, United States, **August 19-23, 2012**.
12. K. Kosaraju, B. Tatineni, M. Duncan, SZ Islam, S. Ilias, D. Kuila, "Bimetallic nanocatalysts in mesoporous silica for steam reforming of methanol" Abstracts of Papers, 244<sup>th</sup> ACS National Meeting, Philadelphia, PA, United States, **August 19-23, 2012**.
13. D. Kuila, A. Rahman, B. Tatineni, Y. Basova, S. Islam, J. Taylor, K. Kosaraju, "Bimetallic Pd-Co nanocatalysts in mesoporous silica for steam reforming of methanol" Abstracts of Papers, 241<sup>st</sup> ACS National Meeting & Exposition, Anaheim, California, **March 27-31, 2011**.

14. Y. Basova, A. Rahman, M. Rahman, S. Ilias, D. Kuila, "Novel bifunctional nanocatalysts for aqueous-phase reforming" Abstracts of Papers, 238th ACS National Meeting, Washington, DC, **August 16-20, 2009**, CATL 50.
15. D. Kuila, "Novel nanocatalysts for hydrogen production from biomass" Abstracts of Papers, 238th ACS National Meeting, Washington, DC, **August, 16-20, 2009**.
16. B. Tatineni, J. Perkins, M. A. Islam, S. Yarmolenko, S. Ilias, D. Kuila. "Synthesis and characterization of bimetallic nano Pd-Ni in mesoporous silica: Application in hydrogen production." Abstracts of Papers, 236th ACS National Meeting, Philadelphia, PA, **August 17-21, 2008**, FUEL-035.
17. D. Kuila, S. Mehta, S. Zhao, W. Cao, J. Fang. "Comparative studies of silica sol-gel supported Fe, Co, and Ru catalysts for F-T reaction in Si-microreactors." Invited Talk. Abstracts of Papers, 236th ACS National Meeting, Philadelphia, PA, United States, **August 17-21, 2008**, FUEL-013.
18. B. Tatineni, D. Kumar, J. Perkins, S. Yarmolenko, D. Kuila "Synthesis and Characterization of Bimetallic Pd-Co Nano Magnetic Materials in Mesoporous Silica" MRS Proceedings 1118, 1118-K-02-09, **2008**.
19. D. Kuila, B. Tatineni, J. Perkins, S. Yarmolenko, Z. Xu, S. Ilias, "In Situ Synthesis and Characterization of Bimetallic Mesoporous Silica and Its Applications" The 2008 AIChE Spring National Meeting, New Orleans, LA, United States, **April 6-10, 2008**.
20. R. Aithal, A. Doss, D. Kumaraswamy, V. Shanigaram, D. K. Mills, D. Kuila, "Development of self-assembled monolayer (SAM)-based cell culture platforms for tissue engineering" 233rd ACS National Meeting, Chicago, IL, **March 25-29, 2007**.
21. D. Kuila, "Nanoassembly of Immobilized Enzymes for Biocatalysis and Bioremediation" 2007 International Conference on Nanotechnology for the Forest Products Industry, Knoxville, TN, **June 13-15, 2007**.
22. S. Mehta, S. Zhao, W. Cao, J. Fang, N. V. Seetala, and D. Kuila, "Nano-catalyst Screening for heterogeneous reactions using an array of Microreactors," 231st ACS National Meeting, Atlanta, GA, *PETR 76*, **March 26-30, 2006**.
23. D. Kuila, A. Potluri, P. Sukul, N. Bolden, R. K. Aithal, J. Benford, D. P. Kumaraswamy, V. Shanigaram, D. K. Mills, S. A. Kavuri, and M. Sahin, "Porous Silicon for Biocatalysis and Cell Culture Studies" 231st ACS National Meeting, Atlanta, GA, *INOR-451*, **March 26-30, 2006**.
24. K. Shetty, S. Zhao, C. Marshall and **D. Kuila** "Characterization of Nickel and Cobalt catalysts for Steam Reforming of Methanol in Microreactors" MRS Fall Meeting, Boston, MA, BB3.5, **November 27-December 1, 2006**.
25. S. Mehta, S. Zhao, N. V. Seetala, and **D. Kuila**, November 27-December 1, 2006. "Nanocatalysts for Fischer-Tropsch Synthesis to Higher Alkanes Using an Array of Microreactors" MRS Fall Meeting, Boston, MA BB4.13, **November 27-December 1, 2006**.
26. A. Doss, K. R. Aithal, D. Kuila, and D. K. Mills, "Towards Development of a SAMs-based Cell Culture Platform," *HSEMB, 22nd Annual Meeting*, Houston, **February, 2005**.
27. D. P. Kumaraswamy, V. K. Shanigaram, A. T. Doss, R. Aithal, D. Kuila, D. K. Mills, "Growth and phenotypic expression of mammalian cell types on self assembled monolayers (SAMs) patterned on conducting and Semi-conducting substrates", *2005 Annual Meeting of the Institute of Biological Engineering, Biology-Inspired Engineering Frontiers*, **March 4-6, 2005**, Athens, GA 30602-3603.

28. A. Doss, R. K. Aithal, D. Kuila, and D. K. Mills, "Cytoskeletal Organization and Cell Behavior of Cells Cultured on Self-Assembled Monolayers (SAMs)", FASEB Meeting, Abstract # 492.5; **April, 2-6, 2005**, San Diego, CA.
29. D.P. Kumaraswamy, R. K. Aithal, D. K Mills, D. Kuila, "Growth and morphology of hepatocytes cultured on self assembled monolayers of varying end groups patterned on ITO substrates", *Biomaterials and Biotechnology Meeting, Society For Biomaterials [SFB]*, 30th Annual Meeting and Exposition, **April 27-30, 2005**, Memphis, TN.
30. S. K. Kolipaka, S. Bala, R. Aithal, P. Derosa, K. Varahramyan, D.B. Janes and D. Kuila, "Molecular Devices based on Metal-Molecule-Metal/Semiconductor Junctions" Workshop at Purdue based on Molecular Conduction and Biosensing", **July27-29, 2005**, Purdue University.
31. R. Aithal, A. Doss, D. Kumaraswamy, V. Shanigaram, D.K. Mills, D. Kuila, "Development of self-assembled monolayer (SAM)-based cell culture platforms" Gordon Research Conf. Holderness School, N.H., **July 31- August 5th, 2005**
32. D. Kuila, R. K. Aithal, D. P. Kumaraswamy and D. K. Mills "Functionality and viability of hepatocytes cultured on ITO patterned with self assembled monolayers" **Invited Talk** at the 230th ACS National Meeting, Washington, D.C., *COLL-423*, **August 28-Sept. 1, 2005**
33. D. Kuila, S. Kolipaka, R. K. Aithal, and K. Varahramyan, "Fabrication and Characterization of an ITO-Molecule-Metal Heterostructure for Nanoelectronics" **Invited Talk** at the 230th ACS National Meeting, Washington, D.C., *COLL-349*, **August 28-Sept. 1, 2005**
34. D. Kuila, K. Shetty, W. Cao, S. Zhao, D. Mainardi, and N. V. Seetala, " Synthesis and Characterization of Non-noble Nano-catalysts for Hydrogen Production" 230th ACS National Meeting, Washington, D.C.,*FUEL-60*, **August 28-Sept. 1, 2005**
35. W. Cao, K. Shetty, S. Zhao, J. Fang, and D. Kuila, "An Array of Microreactors for Fischer-Tropsch synthesis at high pressure" 230th ACS National Meeting, Washington, D.C., *PETR-14*, **August 28-Sept. 1, 2005**.
36. A. Potluri, P. Sukul, N. Bolden, R. K. Aithal, J. Benford, D. P Kumaraswamy, V. Shanigaram, D. K. Mills, S. A. Kavuri, M. Sahin, and D. Kuila "Porous Silicon for Biocatalysis and Cell-Culture Studies" Symposium for "Spectroscopy of Biological Molecules", Organized by Los Alamos National Lab in honor of W.H. Woodruff, **Aug.31-Sept.2, 2005**, Santa Fe, NM.
37. D. Kuila, P. Sukul, D. P. Kumaraswamy, A. Parveen, V. K Shanigaram, R. Aithal, D. K. Mills, "Porous-Silicon for Tissue Engineering", **Invited Talk** at SPIE East, **October 23-26, 2005**, Boston, MA.
38. D Kuila, K. Shetty, W. Cao, S. Zhao, D. Mainardi, and N. V. Seetala, "Non-Noble Nano-Catalysts for Hydrogen Production Using Microreactors" *2005 MRS Fall Meeting*, **November 28-December 2, 2005**--Boston, MA, *A10.9*.
39. D. Kuila, S. Bala, R. Aithal, K. Varahramyan, D. Janes, and P. Derosa, "Molecular Rectifying Diodes based on Aluminum /4'-hydroxy-4-biphenyl carboxylic acid / p+-silicon Junction" *2005 MRS FALL MEETING*. **November 28th-December 2nd, 2005**, Boston, MA, *I8.8*
40. D. Kuila, S. Zhao, V. S. Nagineni, A. Potluri, H. Indukuri, Y. Liang, W. Cao, J. Hu, J. Fang, K. Varahramyan, R. Nassar, J. Palmer, U. Siriwardane and S. Naidu

- “Microreactors for Catalysis using Nano-catalysts” **Invited talk**, presented at the 227<sup>th</sup> ACS National Meeting, Anaheim, CA, *COLL-473*, **March 28 –April 1, 2004**.
41. D. Kuila, V.S.Nagineni, S. Zhao, H. Indukuri, Y. Liang, A. Potluri, U. Siriwardane, N.Seetala, and J. Fang “Characterization of Alumina and Silica Sol-Gel Encapsulated Fe/Co/Ru Nanocatalysts in Microchannel Microreactors for Fischer-Tropsch Synthesis of Higher Alkanes.” MRS Symposium in San Francisco, **April 13-16, 2004**, O3.4, p303.
  42. D. Kuila, M. Tien, Y. Lvov, M. McShane, K. R. Aithal, S. Singh, A. Potluri, S. Kaul, D. Patel, G. Krishna “Nanoassembly of immobilized ligninolytic enzymes for biocatalysis, bioremediation and biosensing”, **Invited Talk at SPIE East Meeting in Philadelphia, 2004, October**, 5593-41.
  43. R. K. Aithal, A. Doss, D. P. Kumaraswamy, D. K. Mills, and D. Kuila “Growth and functionality of cells cultured on self assembled monolayers patterned on conducting and semi-conducting substrates,” *Biomaterials in regenerative medicine: The advent of combination products*, **2004, October**, Philadelphia.
  44. K. R. Aithal, D. S. Patel, G. Krishna, Y. Lvov, T. Mester, M. Tien, D. Kuila “Nanoassembly of novel enzymes for bio-catalysis and degradation of environmental pollutants” presented at the LSU Health Sciences Retreat,, **March 01, 2003**
  45. P. Das, D. S. Patel, D. Kuila, B. Ramachandran, D. Janes, S. Datta, “Dipole moments of Organic thiols on gold surface” Meeting of The American Physical Society S33.009, Surfaces and Interfaces IV: Electronic Properties, Austin, TX, **March 03, 2003**
  46. Jones, J., K. Holmes, S.V. Naidu, V.S. Nagineni, S. Zhao, R.K. Aithal, J. Fang, U. Siriwardane, and D. Kuila, “Magnetization and composition studies of Co and Fe encapsulated Al<sub>2</sub>O<sub>3</sub> sol-gel micro-reactors for syngas conversion. Louisiana Academy of Science Meeting; Lamar-Dixon Expo Center Gonzales, LA (Section: Physics), **March 21, 2003**
  47. D. S. Patel, P. Das, D. Janes, S. Datta, B. Ramachandran, and D. Kuila, “Theoretical Studies on Nanoscale charge transfer in SelfAssembled Monolayers (SAMs) of Organic Thiols on Gold” To be presented at the 225<sup>th</sup> ACS National Meeting, New Orleans, LA, **March 23-27, 2003**, *COLL-283*.
  48. V. S. Nagineni, et. al, “Microreactor with Sol-Gel Encapsulated Catalysts for Syn-gas Conversion to Higher Alkanes “To be presented at the 225<sup>th</sup> ACS National Meeting, New Orleans, LA, **March 23-27, 2003**, INOR-0556.
  49. K. R. Aithal et al. “Nano-assembly of novel enzymes for bio-catalysis and degradation of environmental pollutants” 225<sup>th</sup> ACS National Meeting, New Orleans, LA, **March 23-27, 2003**, I&EC-0162
  50. D. S. Patel, R. Aithal, G. Krishna, Y. Lvov, T. Mester, M. Tien and D. Kuila, “Nanoassembly of novel enzymes for bio-catalysis in aqueous and non-aqueous media”, 226<sup>th</sup> ACS National Meeting, New York, NY, **September 7-11, 2003**, IEC-25.
  51. D. S. Patel, R. Aithal, G. Krishna, Y. Lvov, T. Mester, M. Tien and D. Kuila, “Nanoassembly of lignin peroxidase and manganese peroxidase from phanerochaete Debasish Kuila Page 17 chrysosporium for oxidation of organic compounds”, 226<sup>th</sup> ACS National Meeting, New York, NY, **September 7-11, 2003**, PMSE -212.
  52. D. Kuila et al. “Microreactors for Catalysis”; 226<sup>th</sup> ACS National Meeting, New York, NY, *INOR-22*, **September 7-11, 2003**.

53. D. Kuila et al, "Microreactor Research at Louisiana Tech University's Institute for Manufacturing"; *Invited Talk* in Microreactor Section of *226th ACS National Meeting*, New York, NY, ( Replacement of CATL-26), **September 7-11, 2003**.
54. D. Kuila, S. Howell, T. Rakshit, P. Damle, P. Das, H. McNally, R. Reifenberger, B. Kasibhatla, C. Kubiak, D. Janes, and S. Datta "Nanoscale charge transfer in Au/organic thiol interfaces" 224th ACS National Meeting, Boston, MA, **August, 2002**, COLL-29.
55. K. R. Aithal, D. S. Patel, G. Krishna, Y. Lvov, T. Mester, M. Tien, D. Kuila, "Nanoassembly of novel enzymes for bio-catalysis and degradation of environmental pollutants", presented at the Governor's Biotechnology Initiative Symposium, Shreveport, LA, **November, 2002**.
56. A. W. Ghosh, P. S. Damle, F. Zahid, T. Rakshit, S. Datta, S. Howell, D. Kuila, H. McNally, D. Janes and R. Reifenberger, "Ab-initio Description of Current Conduction and Surface-Potential Measurements in Molecular Conductors", Symposium on Electron Transport on the Molecular Scale at MIPKs Dresden, Germany, February 20-23, **2001**.
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58. S.W. Howell, D. Kuila, H.A. McNally, D.B. Janes, T. Rakshit, A. Ghosh, F. Zahid, S. Datta, B. Kashibhatla, C.P. Kubiak, and R. Reifenberger, "Surface Potentials of Conjugated Molecules on Metal Surfaces: Measurements using Electrostatic Force Microscopy and Calculations using Physically-based Models", MRS Meeting, Paper #D9.38, Boston, Nov.27 - Dec. 1, **2000**.
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60. D. Kuila, I. Malfant, A.M. Everest, and B.M. Hoffman, "Activationless Long-Range Electron Transfer within Mixed-Metal [M, Fe] (M = Zn, Mg) Hemoglobin Hybrids Embedded in PVA Films Mimics that in the Photosynthetic Reaction Center" ACS National Meeting, Washington, D.C., **1992**, Abstract #480-INORG.
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66. D. Kuila, M.J. Natan, W. Baxter, D.J. Gingrich, J.M. Nocek, and B.M. Hoffman, "Ligand Effects on Long-Range Electron Transfer within Metal-Substituted Hemoglobin Debasish Kuila Page 21 Hybrids", *J. Inorg. Biochem.*, 1989, 36, 214, G030, Fourth International Conference on Bioinorganic Chemistry, July 24-28, **1989**, Cambridge, MA, USA.
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*Inorg. Biochem.*, 1989, 36, 214, G031, Fourth International Conference on Bioinorganic Chemistry (ICBIC4), July 24-28, **1989**, Cambridge, MA, USA.

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