

SK Safdar Hossain

Associate Professor

Personal Data:

Nationality | Indian
Date of Hire | October 2012
Date Rank Obtained | October 2012
Department | Chemical Engineering
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Education:

Academic Degree	Major	specialty	Place of Issue	Address	Date
Doctorate (PhD)	Chemical Engineering	Catalysis & Reaction Engineering	King Fahd University of Petroleum & Minerals (KFUPM)	Dhahran, Kingdom of Saudi Arabia	2012
Masters (M.Sc.)	Chemical Engineering	Catalysis & Reaction Engineering	Indian Institute of Technology	Kharagpur 721302, West Bengal, India.	2005
Bachelor (B.Sc.)	Chemical Engineering	Chemical Engineering	Vidyasagar University	Midnapore(E), West Bengal, India	2003

PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions):

PhD	Electrochemical reduction of carbon dioxide to hydrocarbons
Master	Alkylation of Toluene with Ethanol and Methanol over SAPO-11 Molecular Sieves

Experiences:

Title of Job	Address of Work	Country	Date	
			From	To
Visiting Researcher	University Putra Malaysia,	Malaysia	From	July 2017
			To	August 2017
Lecturer-B	King Fahd University of Petroleum & Minerals (Kingdom of Saudi Arabia	From	August 2006
			To	January 2012

Research Interests:

1. Reactor Design & Kinetics
2. Process Dynamics & Control
3. Catalyst Synthesis and Characterization
4. Fuel Cells, and Batteries

5. Photocatalysis
6. Carbon Dioxide Utilization

Publications:

#	Name of author(s)	Title of Publication	Publisher and Date of Publication	Link of Publication
1	Amir Al-Ahmed, SK Safdar Hossain , S. U. Rahman, S. M. J. Zaidi	Application of Titanium Dioxide (TiO ₂) Based Photocatalytic Nanomaterials in Solar and Hydrogen Energy: A Short Review	Material Science Forum	Click Here
2	Safdar Hossain SK , S.U. Rahman, Shakeel Ahmed,	Electrochemical Reduction of Carbon Dioxide over CNT-Supported Nanoscale Copper Electrocatalysts	Journal of Nanomaterials, Volume 2014, Article ID 374318, 10 pages.	Click Here
3	Rehman A., SK Safdar Hossain , Rahman S., Ahmed S., Hossain M.M,	WO ₃ modification effects on Pt-Pd/WO ₃ -OMC electrocatalysts for formic acid oxidation	Applied Catalysis A:General, Volume 482, 2014, Pages 309-317 .	Click Here
4	Shahid M. Basheer, SK Safdar Hossain , Rahman S., Ahmed S., Hossain M M	NiO/MWCNT catalysts for electrochemical reduction of CO ₂	November 2015, Volume 6, Issue 6, pp 544-553, Electrocatalysis, Springer US.	Click Here
5	Rehman A., SK Safdar Hossain , Rahman S. Ahmed S., Hossain M.M,	Influence of CeO ₂ modification on Pt-Pd/CeO ₂ -OMC catalysts for formic acid oxidation	Electrocatalysis, July 2015, Volume 6, Issue 4, pp 348-356.	Click Here
6	Shahid M. Basheer, SK Safdar Hossain , Rahman S., Ahmed S., Hossain M M	SnO ₂ /MWCNT catalysts for electrochemical reduction of CO ₂ , Journal of CO ₂ utilization,	Journal of CO ₂ utilization, Volume 16, December 2016, Pages 346–353.	Click Here
7	SK Safdar Hossain , Junaid Saleem, A. Al. Ahmed, M.M. Hossain, M. N. Shaikh, S.U.Rahman, Gordon Mc Kay,	Preparation and Evaluation of Nickel Oxide-Carbon Nanotube Supported Palladium as Anode Electrocatalyst for Formic Acid Fuel Cells,	International Journal of Electrochemical Sciences, Volume 11, Issue 3, March 2016, Pages 2686 – 2708	Click Here

8	B.V.Ayodele, S. S. Hossain , S.S.Lam, O.U.Osazuwa, M.R.Khan, C.K.Cheng	Syngas production from CO ₂ reforming of methane over neodymium sesquioxide supported cobalt catalyst,	<u>Journal of Natural Gas Science and Engineering, Volume 34</u> , August 2016, Pages 873–885	Click Here
9	B.V.Ayodele, S. S. Hossain , S.S.Lam, M.R.Khan, C.K.Cheng,	Modelling and optimization of syngas production by methane dry reforming over samarium oxide supported cobalt catalyst: Response Surface Methodology and Artificial Neural Networks Approach,	Clean Technologies and Environmental Policy, 2017, Volume 19, Issue 4, pp1181-1193.	Click here
10	Jiah Chee Sho, Soo Ling Chong, SK Safdar Hossain , Chin Kui Cheng	Catalytic Ethylene Production from Ethanol Dehydration Over Non-modified and phosphoric acid modified Zeolite H-Y(80) Catalysts	Fuel Processing Technology, Volume 158, 2017, Pages 85-95.	Click here
11	Kim Hoong Nga, Maksudur R. Khan, Yun Hau Ng, Sk Safdar Hossain , Chin Kui Cheng	Restoration of liquid effluent from oil palm agroindustry in Malaysia using UV/TiO ₂ and UV/ZnO photocatalytic systems: A comparative study	Journal of Environmental Management, Vol 196, 2017, Pages 674-680	Click Here
12	Syed Sadiq Ali, Safdar Hossain , Mohammad Asif,	Dynamic Modeling of Iso-amyl acetate Reactive Distillation Column,	Polish Journal of Chemical Technology, Vol. 19, Issue 1, 2017, Pages 59-66.	Click Here
13	SK Safdar Hossain , Junaid Saleem, A. Al. Ahmed, Ateequr Rehman, M.M. Hossain, Gordon Mc Kay, John Barford	Evaluation of Pd nanoparticles decorated CeO ₂ -MWCNT nanocomposite as electrocatalyst for formic acid fuel cells	Journal of Electronic Materials, April 2018, Volume 47, <u>Issue 4</u> , PP:2277–2289.	Click Here
14	<u>Yoke Wang Cheng</u> , <u>Zhan Sheng Lee</u> , <u>Chi Cheng Chong</u> , <u>Maksudur R. Khan</u> , <u>Chin Kui Cheng</u> , <u>Kim Hoong Ng</u> , Safdar Hossain SK	Hydrogen-rich syngas production via steam reforming of palm oil mill effluent (POME) – A thermodynamics analysis	International Journal of Hydrogen Energy 2019, 44 (37), 20711-20724	Click Here
15	SK Safdar Hossain , S. U. Rahman, S. M. Javaid. Zaidi,	Synthesis and evaluation of copper supported titanium oxide nanotubes as electrocatalyst for the electrochemical reduction of carbon dioxide to organics	Catalysts 2019, 9(3), 298	Click Here
16	Sk Safdar Hossain , Mostafa Tarek , Thurga Devi Munusamy , Kaykobad Md. Rezaul Karim , Selvaraj Mohana	Facile synthesis of CuO/CdS heterostructure photocatalyst for the effective degradation of dye under visible light,	Environmental Research, Volume 188, 109803, 2020.	Click Here

	Roopan , Shaheen M. Sarkar , Chin Kui Cheng , Md. Maksudur Rahman Khan,			
17	Euqb Ali, Enamul Hoque, Safdar Hossain SK , Manik Chandra Biswas	Review on Nanoadsorbents for Wastewater Treatment – Next Generation Biotechnological Solution	International Journal of Environmental Science and Technology 2020	Click Here
18	Safdar Hossain SK	Synthesis and characterization of nitrogen doped reduced graphene oxide supported PdFe electrocatalysts and their performance towards the electrooxidation of formic	Issue 7, Volume 46, Page number 6543- 6556, 2021, Arabian Journal of Science and Engineering.	Click Here
19	Safdar Hossain SK	Heteroatom Doped Carbon Materials as Support for Anode Electrocatalysts for Direct Formic Acid Fuel Cells	article number 150926, Vol 16, 2021, International Journal of Electrochemical Sciences.	Click Here
20	Safdar Hossain SK , Mudassir M. Alwi , Junaid Saleem, Taj H. Al- Hashem, Gordon Mc Kay	Synthesis and characterization of Nitrogen doped reduced graphene oxide supported PdCo electrocatalysts and their performance towards the electrooxidation of formic acid	Catalysts,, 2021	Click Here
21	Syed Sadiq Ali, SK Safdar Hossain , Mohammad Asif	<u>Dynamics of partially collapsing pulsed fluidized bed,</u>	The Canadian Journal of Chemical Engineering, Accepted for Publication. 2021	Click Here
22	Syed Sadiq Ali, Agus B Arsad, SK. Safdar Hossain , Avijit Basu, Mohammad Asif	Optimization and effective control of reactive distillation process for the production of high purity biodiesel	Processes, 2021.	Click Here
23	Sayeed Rushd, Ezz Ahmed, Shahriar Mehmud, SK Safdar Hossain ,	A Two-Parameter Model for Water- Lubricated Pipeline Transportation of Unconventional Crudes,	Energies 2021, 14(18), 5665	Click Here
24	SK. Safdar Hossain , Syed Sadiq Ali, Sayeed Rushd, B.V.Ayodele	Interaction Effect of Process Parameters and Pd- Electrocatalyst in Formic Acid Electro- Oxidation for Fuel Cell Applications: Implementing Supervised Machine Learning Algorithms	International Journal of Energy Research	Submitted



25	SK Safdar Hossain	Nanostructured Anode Electrocatalysts for Direct Formic Acid Fuel Cells-A Review	Chemical Records	Submitted
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Language Proficiency:

1. English
2. Urdu