Dr. Rawesh Kumar
Assistant Professor, School of Science

Education Qualification:

Phd : IIT-ISM
M.Phil : IIT-ISM
NET (JRF)

Research Interest:

Surface Catalysis

Publications:

h-Index: 9

Year 2020	Title	Name of Co-author, if any	Name of Journal	Volume & Year	Pages	SCI Impact factor
1.	**Impact of Ce-Loading on Ni-catalyst supported over La_2O_3+ZrO_2 in methane reforming with CO_2**	S. Olajide Kasim, A. S. Al-Fatesh, A. A. Ibrahim, Rawesh Kumar, A. E. Abasaeed, A. H. Fakeeha	International Journal of Hydrogen Energy	**2020**	**Accepted**	**5**
2.	Promotional Effect of Magnesium Oxide for a Stable Nickel-based Catalyst in Dry Reforming of Methane	A. S. Al-Fatesh, Rawesh Kumar, A. H. Fakeeha, S. O. Kasim, J. Khatri, A. A. Ibrahim[1], R. Arasheed, M. Alabdulsalam, M. S. Lanre, A. I. Osman, A. E. Abasaeed, A. Bagabas	Scientific Reports (Nature)	10, 2020	13861	4.1
3.	The Effect of Modifier Identity on the Performance of Ni-Based catalyst supported on γ-Al_2O_3 in Dry Reforming of	A. S. Al-Fatesh, Rawesh Kumar, S. O. Kasim, A. A. Ibrahim, A. H. Fakeeha, A. E. Abasaeed, R. Alrasheed, A. Bagabas,	Catalysis Today	348 2019	236-242	6

	Methane https://doi.org/10.1016/j.cattod.2019.09.003	M. L. Chaudhary , F. Frusteri, B. Chowdhury				
Year 2019	**Title**	**Name of Co-author, if any**	**Name of Journal**	**Volume & Year**	**Pages**	**SCI Impact factor**
4.	An Overview of Caprolactum Synthesis https://doi.org/10.1080/01614940.2019.1650876	Rawesh Kumar*, S. Shah, P. P. Das, A. Alfatesh, B. Chowdhury	Catalysis Reviews Science and Engineering	16, 2019 516-594	16, 2019 516-594	9
5.	Recyclable Au/SiO_2-Shell / Fe_3O_4 - Core Catalyst for the Reduction of 2-Nitro Aromatic Compounds in Aqueous Solution https://doi.org/10.1021/acsomega.8b03655	K. Bhaduri, B. D. Das, **Rawesh Kumar**, S. Mondal, S. Chatterjee, S. Shah, J. J. Bravo-Suarez, B. Chowdhury	ACS Omega	4, 2019	4071-4081	~3
Year 2018	**Title**	**Name of Co-author, if any**	**Name of Journal**	**Volume & Year**	**Pages**	**Impact factor**
6.	Role of Oxygen Vacancy in Cobalt doped Ceria Catalyst for Styrene Epoxidation using Molecular Oxygen https://doi.org/10.1016/j.mcat.2018.01.025	S. Hassan, **Rawesh Kumar** , A. Ghosh, W. Song, L.V. Haandel, J. K. Pandey, E. Hensen, B. Chowdhury	Molecular Catalysis	451, 2018	238-246	3.6
7.	Ketonization Reaction of Oxygenated Hydrocarbons on Metal Oxide Based Catalysts https://doi.org/10.1016/j.cattod.2017.09.044	**Rawesh Kumar**, N. Enjamuri, S. Shah, A. S. Alfatesh, J.J Bravo-Suaraz, B. Chowdhury,	*Catalysis today*	302,2018	16-49	6
Year 2017	**Title**	**Name of Co-author, if any**	**Name of Journal**	**Volume & Year**	**Pages**	**Impact factor**
8.	Understanding acidity-basicity-oxidising ability-reducibility of Nanomaterials https://doi.org/10.1080/23802693.2017.1421501	Prakash Kumar Beura, Nikhil Gangwar, Shailesh Kumar Prasad & Rawesh Kumar*	Natural Resources & Engineering	2, 2017	23-31	NIL
Year 2016	**Title**	**Name of Co-author, if any**	**Name of Journal**	**Volume & Year**	**Pages**	**Impact factor**

9.	Highly stable In-SBA-15 catalyst for vapor phase Beckmann rearrangement reaction https://doi.org/10.1016/j.micromeso.2016.07.024	**Rawesh Kumar**, S. Shah , J. Bahadur, Y. B. Melnichenko, D.Sen, S.N Mazumder, C. P. Vinod, B. Chowdhury	Microporous and Mesoporous Materials	234, 2016	293–302	4.5
10.	Synthesis, characterization and correlation with the catalytic activity of efficient mesoporous Niobia and mesoporous Niobia-Zirconia mixed oxide catalyst system https://doi.org/10.1016/j.catcom.2016.01.012	**Rawesh Kumar**, S. Ponnada, N. Enjamuri, J. K. Pandey , B. Chowdhury	Catalysis Communications,	77, 2016	42-46	3.6
11.	Highly active InO_x/TUD-1 catalyst towards Baeyer–Villiger oxidation of cyclohexanone using molecular oxygen and Benzaldehyde https://doi.org/10.1016/j.catcom.2015.11.007	**Rawesh Kumar**, P. P. Das, A.Sadeq AlFatesh, A. H. Fakeeha, J. K. Pandey B. Chowdhury	Catalysis Communications	74, 2016	80-84	3.6
Year 2015	**Title**	**Name of Co-author, if any**	**Name of Journal**	**Volume & Year**	**Pages**	**Impact factor**
12.	**Book Name:** Advance Functional Material **Book Chapter Name:**The Synthetic Strategy for Developing Mesoporous Materials through Nanocasting Route. https://doi.org/10.1002/9781118998977.ch2	**Rawesh Kumar**, Biswajit Chowdhury	Wiley Scrivener Publishing , USA	2015	**59-125**	NA
13	Bismuth supported SBA-15 catalyst for vapour phase Beckmann rearrangement reaction of cyclohexanone oxime to ε-caprolactam https://doi.org/10.1016/j.apcata.2015.02.044	**Rawesh Kumar,** N. Enjamuri, J. K. Pandey, D. Sen, S.Mazumder, A. Bhaumik,B. Chowdhury,	Applied Catalysis A. General,	497, 2015	51-57	5.006

14	Mesoporous TUD-1 supported indium oxide nanoparticles for epoxidation of styrene using molecular O_2 https://doi.org/10.1039/C5RA03400K	S.Rahman, S. A. Farooqui, A. Rai, **Rawesh Kumar**, C. Santra, V. C Prabhakaran, G. R. Bhadu, D. Sen, S. Mazumder, S. Maity, A. Sinha B. Chowdhury,	R.Sc. Advances	**5**, 2015	46850-46860	3.1
Year 2014	**Title**	**Name of Co-author, if any**	**Name of Journal**	**Volume & Year**	**Pages**	**Impact factor**
15	**Book Name:** Advanced Materials for Agriculture, Food, and Environmental Safety **Book Chapter Name:** Recent Developments in Gold Nanomaterial Catalysts for Oxidation Reaction through Green and Sustainable Routes https://doi.org/10.1002/9781118773857.ch8	Biswajit Chowdhury, Chiranjit Santra, Sandip Mandal and **Rawesh Kumar**	Wiley Scrivener Publishing USA	2014	197-241	NA
16	Comprehensive Study for Vapor Phase Beckmann Rearrangement Reaction over Zeolite Systems" (Review Article) https://doi.org/10.1021/ie503170n	**Rawesh Kumar**, B. Chowdhury,	*Industrial & Engineering Chemistry Research,*	**53,** 2014	16587–16599	2.8
17	Highly active Ga promoted Co-HMS-X catalyst towards styrene epoxidation reaction usingmolecular O_2 https://doi.org/10.1016/j.apcata.2014.05.024	S. Rahman, C.Santra, **Rawesh Kumar**, J.Bahadur, A. Sultana, R. Schweins, D. Sen, S. Maity, S. Mazumdar, B. Chowdhury	Applied Catalysis A. General	482, 2014	61–68	5.006
18	XAFS, XPS characterization of cerium promoted Ti-TUD-1 catalyst and it's activity for styrene oxidation reaction https://doi.org/10.1016/j.catcom.2013.11.027	S. Mandal, S. Rahman, **Rawesh Kumar,** K. K. Bando, B. Chowdhury	Catalysis Communications	46, 2014	123–127	3.6
19	Niobium doped hexagonal mesoporous	S. Mandal, C. Santra, **Rawesh Kumar**,	R.Sc. Advance.	**4**, 2014	845-854	3.1

	silica (HMS-X) catalyst for vapor phase Beckmann rearrangement reaction https://doi.org/10.1039/C3RA41840E	M.Pramanik, S. Rahman, A.Bhaumik, S. Maity, D. Sen, B.Chowdhury				
Year 2011	**Title**	**Name of Co-author, if any**	**Name of Journal**	**Volume & Year**	**Pages**	**Impact factor**
20.	Determination of quartz and its abundance in respirable airborne dust in both coal and metal mines in India https://doi.org/10.1016/j.proeng.2011.11.2371	S.Kumari, Rawesh Kumar, K. K.Mishra, J.K.Pandey, G. N. Udayabhanu, A.K.Bandopadhyay	Procedia Engineering	26, 2011	1810–1819	**0.6**
21.	Synthesis, characterization of Ga-TUD-1 catalyst and its activity towards styrene epoxidation reaction https://doi.org/10.1016/j.catcom.2011.01.004	S. Mandal, A. S.Mahapatra, B. Rakesh, Rawesh Kumar, A. Panda, B. Chowdhury,	Catalysis Communications	12, 2011	734	**3.6**

Courses Taught: Physical Chemistry

Awards& Honors: NET (JRF)

Others: Creator of educational YouTube channel "The Big Concept: PG topics" (https://www.youtube.com/channel/UCAqSyDalRn_9yE5VxdgevKA/videos) which covers 40% of whole chemistry course throught 61 videos in 11 playlists through text-directed-animation.

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