# FACULTY PROFILE



✓	Name of Faculty	:	Dr. Atul Sopan Nagpure
✓	Department	:	Chemistry
✓	Designation	:	Assistant Professor
✓	Institution	:	Rashtrapita Mahatma Gandhi Art's & Science College, Nagbhid, Dist. Chandrapur, Maharashtra-441205 (Gondwana University, Gadchiroli)
✓	<b>Teaching Experience</b>	:	1 September 2016 to till date
✓	<b>Research Experience</b>	:	January 2011 to till date
✓	Research Area	:	Nanomaterials, Nanoparticles, Nanocatalysis, Materials, Biomass Conversion, Biofuels
~	Permanent Address	:	At & Post-Pardi Deshmukh, Tah-Kalmeshwar, Dist-Nagpur, Maharashtra - 441502.
✓	Date of Birth	:	05-10-1986
✓	Mobile	:	+91-9763190023 ; +91-7972403513
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### **EDUCATION**

- Ph.D. from CSIR-National Chemical Laboratory (CSIR-NCL), Pune, INDIA (Jan. 2011-Aug. 2016).
   Ph.D. Guide : Dr. Satyanarayana V. Chilukuri (Senior Research Scientist, CSIR-NCL, Pune)
   Ph.D. Thesis Title : "Novel Catalysts for Hydrogenolysis of Biomass Derived Feedstocks and Hydrogenation of α,β-Unsaturated Carbonyl Compounds"
- ✤ "CSIR-NET-JRF" in Chemistry (Dec. 2010).
- ✤ "UGC-NET-JRF" in Chemistry (June 2010).
- \* M.Sc. (Organic Chemistry) from R.T.M. Nagpur University, Nagpur, INDIA (2009).
- B.Sc. (Chemistry, Physics and Mathematics) from R.T.M. Nagpur University, Nagpur, INDIA (2007).
- ✤ 12<sup>th</sup> from Maharashtra (2004).
- ✤ 10<sup>th</sup> from Maharashtra (2002).

### **AWARDS**

- **\*** "Senior Research Fellowship" by CSIR, INDIA, in Chemistry (2013-2015).
- "Junior Research Fellowship" by CSIR, INDIA, in Chemistry (2011-2012).

#### PATENTS

1. U.S. Patent:	Process for the preparation of 2,5-dimethylfuran and furfuryl alcohol		
	over Ruthenium supported catalysts.		
	[Authors: Atul S. Nagpure, Nishita Lucas, Satyanarayana V. Chilukuri]		
	U.S. Patent No. US 9757713 B2		
2. U.S. Patent:	Transition metal(s) catalyst supported on nitrogen-doped mesoporous carbon and its use in catalytic transfer hydrogenation reactions.		
	[Authors: Atul S. Nagpure, Satyanarayana V. Chilukuri]		
	U.S. Patent No. US 11000831 B2		

#### **RESEARCH PUBLICATIONS**

**1.** Active and Recyclable Gold Metal Nanoparticles Catalyst Supported on Nitrogen-Doped Mesoporous Carbon for Chemoselective Hydrogenation of Cinnamaldehyde to Cinnamyl Alcohol

[Authors: Atul S. Nagpure, Pranjal Gogoi and Satyanarayana V. Chilukuri] International Journal: Chemistry: An Asian Journal (2021), Vol. 16, Issue 18, 2702-2722 (ISSN: 1861-471X) Publisher: Wiley-VCH (ChemPubSoc Europe)

Impact Factor: 4.5

**2.** Novel Ru nanoparticle catalysts for the catalytic transfer hydrogenation of biomass-derived furanic compounds.

[Authors: Atul S. Nagpure, Pranjal Gogoi and Satyanarayana V. Chilukuri] International Journal: Sustainable Energy & Fuels (2020), 4, 3654–3667 (ISSN: 2398-4902) Publisher: Royal Society of Chemistry Impact Factor: 6.3

Efficacy of clay catalysts for the dehydration of fructose to 5-hydroxymethyl furfural in biphasic medium.
 [Authors: Nishita Lucas, Atul S. Nagpure, Lakshmiprasad Gurrala, Pranjal Gogoi and Satyanarayana Chilukuri]
 International Journal: Journal of Porous Materials (2020), 27, 1691–1700

(ISSN: 1573-4854) Publisher: Springer Impact Factor: 2.5

**4.** Insights into the catalytic activity of Ru/NaY catalysts for efficient H<sub>2</sub> production through aqueous phase reforming.

[Author: Pranjal Gogoi, Atul S. Nagpure, Prabu Kandasamy, Satyanarayana Chilukuri and Raja Thirumalaiswamy]

International Journal: Sustainable Energy & Fuels (2020), 4, 678-690

(ISSN: 2398-4902) Publisher: Royal Society of Chemistry Impact Factor: 6.3

5. Synthesis of Supported Metal Nanoparticles: Future Scope

[Author: Atul S. Nagpure] International Journal: International Journal of Life Sciences (2018), A-12, 39-43. (ISSN: 2320-964X) Publisher: Ivyspring International Publisher Impact Factor: 1.5

 6. Spinel-Type Mixed Oxides for Stable and Selective Partial Oxidation of Benzyl Alcohol. [*Author: L. Gurrala, Atul S. Nagpure, H. R. Gurav and Satyanarayana Chilukuri*] International Journal: Chemistry Select (2018), 3, 3751 – 3761. (ISSN: 2365-6549)

 Publisher: Wiley-VCH (ChemPubSoc Europe)

 Impact Factor: 2.1

**7.** Efficient method for preparation of highly dispersed metal nanoparticles supported on Octahedral Molecular Sieve.

[Author: Atul S. Nagpure, Pranjal Gogoi, Nilesh G. Gode and Anil N. Korpenwar] International Journal: RJLBPCS (2018), 4(1), 31 - 37. (ISSN: 2454-6348) Publisher: Life Science Informatics Publications Impact Factor: 2.5

8. Octahedral Molecular Sieve (K-OMS-2) supported metal nanoparticles for catalysis.

[Author: Atul S. Nagpure, Nilesh G. Gode, G. P. Juare and S. M. Sontakke] International Journal: International Journal Of Current Engineering And Scientific Research (2018), 1 (5), 393 - 395. (ISSN: 2394-0697) Publisher: Technical Research Organization (India) Impact Factor: 1.5

- Physico-chemical analysis of Water Samples and Effect of its Quality on Human Health. [Author: Atul S. Nagpure, Nilesh G. Gode, Dheerendra S. Singh and Anil N. Korpenwar] International Journal: RJLBPCS (2017), 3(3), 80-89. (ISSN: 2454-6348) Publisher: Life Science Informatics Publications Impact Factor: 2.5
- **10.** Renewable fuels from biomass-derived compounds: Ru-containing hydrotalcites as catalysts for conversion of HMF to 2,5-dimethylfuran.

[Authors: Atul S. Nagpure, Ashok Kumar Venugopal, Nishita Lucas, M. Manikandan, Raja Thirumalaiswamy and Satyanarayana Chilukuri]

International Journal: Catalysis Science & Technology, (2015), 5, 1463-1472. (ISSN: 2044-4753) Publisher: Royal Society of Chemistry Impact Factor: 5.7

**11.** Efficient preparation of liquid fuel 2,5-dimethylfuran from biomass-derived 5-hydroxymethylfurfural over Ru-NaY catalyst.

[Authors: Atul S. Nagpure, Nishita Lucas and Satyanarayana Chilukuri] International Journal: ACS Sustainable Chemistry & Engineering, (2015), 3, 2909-2916. (ISSN: 2168-0485) Publisher: American Chemical Society Impact Factor: 8.2

**12.** Hydrogenation of Cinnamaldehyde to Hydrocinnamaldehyde over Pd nanoparticles deposited on nitrogen-doped mesoporous carbon.

[Authors: Atul S. Nagpure, Lakshmiprasad Gurrala, Pranjal Gogoi and Satyanarayana Chilukuri] International Journal: RSC Advances, (2016), 6, 44333-44340. (ISSN: 2046-2069) Publisher: Royal Society of Chemistry Impact Factor: 3.8

**13.** Dehydration of fructose to 5-hydroxymethylfurfural over ordered AlSBA-15 catalysts.

[Authors: Nishita Lucas, Ganesh Kokate, Atul S. Nagpure and Satyanarayana Chilukuri] International Journal: Microporous & Mesoporous Materials, (2013), 181, 38–46. (ISSN: 1387-1811) Publisher: Elsevier Impact Factor: 4.5

**14.** Novel catalysts for valorization of biomass to value-added chemicals and fuels.

[*Authors:* Nishita Lucas, Narasimha Rao Kanna, *Atul S. Nagpure*, Ganesh Kokate and Satyanarayana Chilukuri] Indian Journal: Journal of Chemical Sciences, (2014), 126, 403-413. (ISSN: 0974-3626)

#### Publisher: Springer Impact Factor: 1.2

**15.** Promotional effect of Fe on the performance of supported Cu catalyst for ambient pressure hydrogenation of furfural.

[Authors: M. Manikandan, Ashok Kumar Venugopal, Atul S. Nagpure, Satyanarayana Chilukuri and Raja Thirumalaiswamy] International Journal: RSC Advances, (2016), 6, 3888-3898. (ISSN: 2046-2069) Publisher: Royal Society of Chemistry Impact Factor: 3.8

**16.** Highly efficient nitrogen-doped hierarchically porous carbon supported Ni nanoparticles for the selective hydrogenation of furfural to furfuryl alcohol.

[Authors: Trupti V. Kotbagi, Hanmant R. Gurav, Atul S. Nagpure, Satyanarayana V. Chilukuri and Martin G. Bakker]

International Journal: RSC Advances, (2016), 6, 67662-67668.

(ISSN: 2046-2069) Publisher: Royal Society of Chemistry Impact Factor: 3.8

# **RESEARCH PAPER PRESENTED IN SYMPOSIUM / CONFERENCE**

- Poster presented on "Supported Gold Nanoparticles Catalysts for Biomass Conversion" at 11<sup>th</sup> National Conference on Solid State Chemistry and Allied Areas (NCSCA-2019) at SKP College Kamptee, Nagpur & ISCAS, Jammu, India, 20 & 21<sup>st</sup> December, 2019. [Authors: Atul S. Nagpure]
- Poster presented on "Renewable Liquid Fuel from Biomass-Derived Compound over Ru Nanoparticles Deposited on NaY Zeolite" at International Conference on Integrated Solid Waste Management Practice in Developing Countries at CSIR-NEERI, Nagpur, India, April 11-12, 2017.

[Authors: Atul S. Nagpure, Nilesh G. Gode]

- **3.** Poster presented on "Survey on Biogas Capacity of Minthur Village" at **International Conference** on **Integrated Solid Waste Management Practice in Developing Countries** at CSIR-NEERI, Nagpur, **India**, **April 11-12**, **2017**. [*Authors: Nilesh G. Gode, Atul S. Nagpure*]
- Poster presented on "Preparation of renewable liquid fuel 2,5-dimethylfuran from 5-hydroxymethylfurfural over Ru-NaY catalyst" during 17<sup>th</sup> CRSI National Symposium in Chemistry at CSIR-National Chemical Laboratory, Pune, India, February 6-8, 2015.
   [Authors: Atul S. Nagpure, Nishita Lucas, Satyanarayana V. Chilukuri]

- Poster presented on "Hydrogenation of cinnamaldehyde to hydrocinnamaldehyde over Pd nanoparticles deposited on nitrogen-doped mesoporous carbon" during 22<sup>nd</sup> National Symposium on Catalysis at CSIR-Central Salt and Marine Chemicals Research Institute, Bhavnagar, India, January 7-9, 2015.
   [Authors: Atul S. Nagpure, Satyanarayana V. Chilukuri]
- 6. Poster presented on "Production of gasoline additive 2,5-dimethylfuran from 5-hydroxymethylfurfural over Ru-Mg-OMS-1 catalyst" during 16<sup>th</sup> National Workshop on Catalysis for Sustainable Development at CSIR-National Environment Engineering Research Institute, Nagpur, India, February 4-5, 2014.
  [Authors: Atul S. Nagpure, Satyanarayana V. Chilukuri]
- Poster presented on "Renewable fuels from biomass-derived compounds: Ru-containing hydrotalcites as catalysts for conversion of HMF to 2,5-dimethylfuran" during 21<sup>st</sup> National Symposium on Catalysis for Sustainable Development at CSIR-Indian Institute of Chemical Technology, Hyderabad, India, February 11-13, 2013. [Authors: Atul S. Nagpure, Satyanarayana V. Chilukuri]

# LIST OF WORKSHOP / CONFERENCE / SEMINAR ATTENDED

- Attended One-Day Workshop on "CBCS SYLLABUS IN ALL SUBJECTS OF SCIENCE FACULTY" Jointly Organized by Gondwana University, Gadchiroli & Dnyanesh Mahavidyalaya, Nawargaon, Dist-Chandrapur on 16<sup>th</sup> April 2017.
- Attended Two-Days National Conference on Chemistry of Chalcogens (NC<sup>3</sup>-2013) Organized by Defence Institute of Advance Technology (DIAT), Pune on 14-15<sup>th</sup> January 2013.

# DECLARATION

I hereby declare that the above details are true to the best of my knowledge.

Place: NAGBHID

(Dr. Atul S. Nagpure)