

DIPTI P. DAS

Ph.D. (Chem.)

Contact Address: Mineralogy And Materials Characterisation Department, CSIR-Institute of Minerals & Materials Technology, Acharya Vihar, Bhubaneswar - 751 013, Odisha, India

E-mail: diptidas.immt@csir.res.in; diptidas.immt@nic.in

Phone: 0674-2379216



EXPERIENCE:

Sr. Pr. Scientist: (22nd Dec 2025-Continuing) Mineralogy and Materials Characterisation Department, CSIR-Institute of Minerals & Materials Technology, Bhubaneswar, India.

Pr. Scientist: (22nd Dec 2019-21st Dec 2025) Central Characterisation Department, CSIR-Institute of Minerals & Materials Technology, Bhubaneswar, India.

Sr. Scientist: (01st January 2019-21st Dec 2019) Central Characterisation Department, CSIR-Institute of Minerals & Materials Technology, Bhubaneswar, India.

Sr. Scientist: (22nd December 2015-31st December 2018) Colloids & Materials Chemistry Department, CSIR-Institute of Minerals & Materials Technology, Bhubaneswar, India.

Scientist: (22nd December, 2012-21st December 2015) Colloids & Materials Chemistry Department, CSIR-Institute of Minerals & Materials Technology, Bhubaneswar, India.

Jr. Scientist: (22nd December, 2009 – 21st December, 2012) Colloids & Materials Chemistry Department, CSIR-Institute of Minerals & Materials Technology, Bhubaneswar, India.

CSIR-Research Associate: (May, 2007 – December, 2009) Colloids & Materials Chemistry Department, CSIR-Institute of Minerals & Materials Technology, Bhubaneswar, India.

CSIR-Fellow Scientist (QHF): (November, 2006 – May, 2007) Colloids & Materials Chemistry Department, CSIR-Institute of Minerals & Materials Technology, Bhubaneswar, India.

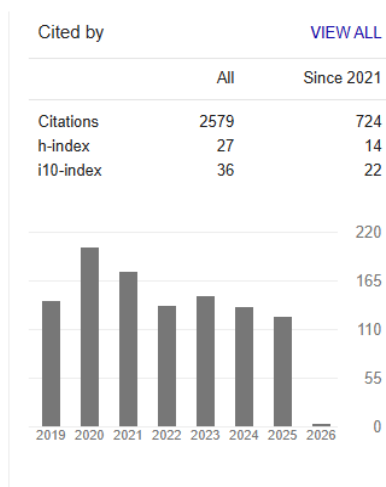
Research

Research activities are mostly centered on synthesis, characterization of layered/composite materials/heterojunction catalysts, mesoporous materials, non-metal doped mixed oxides

having different hierarchy and grapheme/graphene quantum dot/bio-inspired carbon quantum dot based nanocomposites/nanoarchitectures for phototransformation, water splitting and environmental benign reactions.

Publications

A - PEER REVIEWED PUBLICATIONS



Journals:

1. Tuning and Understanding of Layered 2D MoS₂-MoO₃ Interface for Enhanced Photocatalytic Activities, Sagar Mallick, Manasi Jena, Biswanath Das, Bibhunanda Mohanty, Brijesh Kumar Patel, **Dipti Prakasini Das** and Ashutosh Rath, Adv. Funct. Mater. 35 (2025) 2422645 (IF = 19).
2. Pressure effects on the surface enhanced Raman spectroscopy of a ZIF-67/R6G system, K. Kamali, K. A. Irshad, Muthukumaran Sundaramoorthy, Bobby Joseph and **Dipti P. Das**, Nanoscale 17 (2025) 14874 (IF = 5.1).
3. Unlocking the power of MgFe-LDHcal/TiO₂ heterojunctions for superior photocatalytic detoxification of industrial wastewater, A. Samal*, **Dipti P. Das***, Next Materials 8 (2025) 100714 (IF = yet to be confirmed).
4. GQD@NiFe-LDH Nanosheets for Photocatalytic Activity towards Textile Dye Degradation via Lattice Contraction, M. Jena, S. Mallick, A. Rath, M.K. Dalai, **Dipti P. Das***, ChemPlusChem 2023, 88, e202300276 (IF = 2.8).

5. Structure and Activity of Lysozyme on Binding to Lithium-Manganese Oxide Nanocomposites Prepared from Seabed Nodule, M.K. Ghosh, Ayonbala Baral, Lakkoji Satish, Subrat K. Padhy, **Dipti P. Das**, Shaohua Ju, *J. Phys. Chem. Sol.* 151 (2021) 109794 (IF = 3.995).
6. Electrodeposition of nano MnO₂ from mineral leach liquor and the investigation on conformational changes of hemoglobin induced by the nanomaterial, A. Baral, L. Satish, S.K. Padhy, **Dipti P. Das**, B.C. Tripathy, M.K. Ghosh*, *Coll. Surf. A* 585 (2020) 124102 (IF = 3.131).
7. Molecular interactions of MnO₂@RGO (manganese dioxide-reduced graphene oxide) nanocomposites with bovine serum albumin, Ayonbala Barala, Lakkoji Satish, **Dipti P. Das**, Harekrushna Sahoo and Malay Kumar Ghosh*, *J. Biomolecular Str. Dyn.* 38 (2020) 2038 (IF = 2.689).
8. Hydrogen Photosynthesis through Schottky Junction of RGO-NiPO and the Perspective of the Mechanism, Alaka Samal, Smrutirekha Swain, Unnikrishnan Manju, **Dipti P. Das***, *ACS Sus. Chem. Eng.* 7 (2019) 10052-10063 (DOI: 10.1021/acssuschemeng.9b01316) (IF = 6.97).
9. Repercussion of Solid state vs. Liquid state synthesized p-n heterojunction RGO-copper phosphate on proton reduction potential in water, Alaka Samal, **Dipti P. Das***, Giridhar Madras, *Nature Sci. Reports* 8 (2018) 2881 (IF = 4.259).
10. Transfiguring UV light active “metal oxides” to visible light active photocatalyst by reduced graphene oxide hypostatization, Alaka Samal, **Dipti P. Das***, *Catal. Today* 300 (2018) 124-135 (IF = 4.636).
11. Construing the interactions between MnO₂ nanoparticle and bovine serum albumin: insight into the structure and stability of a protein-nanoparticle complex, Ayonbala Baral, L. Satish, **Dipti P. Das**, H. Sahoo, M.K. Ghosh, *New J. Chem.* 41 (2017) 8130-8139 (IF = 3.269).
12. Probing environmental remediation of RhB organic dye using a-MnO₂ under visible-light irradiation: structural, photocatalytic and mineralization studies, Ayonbala Baral, **Dipti P. Das**, Manickam Minakshi, M.K. Ghosh, D.K. Padhi, *ChemistrySelect* 1 (2016) 4277-4285.

13. 3D $\text{Co}_3(\text{PO}_4)_2$ -Reduced graphene oxide flowers for photocatalytic water splitting: A type II staggered heterojunction system, A. Samal, S. Swain, B. Satpati, **Dipti P. Das***, B.K. Mishra, *ChemSusChem* 9 (2016) 3150-3160 (**Featured as back cover page**) (IF = 7.116).
14. Reduced graphene oxide- Ag_3PO_4 heterostructure; a direct Z-scheme photocatalyst for augmented photoreactivity and stability, A. Samal, **D.P. Das***, K.K. Nanda, B.K. Mishra, J. Das, A. Dash, *Chem. Asian J.* 11 (2016) 584-595 (**Featured as back cover page**) (IF = 4.587).
15. Cs salt of tungstophosphoric acid-promoted zirconium titanium phosphate solid acid catalyst: An active catalyst for the synthesis of bisphenols, N. Biswal, **D.P. Das**, K.M. Parida, *J. Chem. Sci.* 126 (2014) 455-465 (IF = 1.191).
16. One pot synthesis of water-dispersible dehydroascorbic acid coated Fe_3O_4 nanoparticles under atmospheric air: Blood cell compatibility and enhanced magnetic resonance imaging, H. Gupta, P. Paul, N. Kumar, S. Baxi, **D.P. Das**, *J. Coll. Interf. Sci.* 430 (2014) 221-228 (doi: 10.1016/j.jcis.2014.05.043) (IF = 3.368).
17. One-pot fabrication of RGO- Ag_3VO_4 nanocomposites by *in-situ* photoreduction using different sacrificial agents: High selectivity towards catechol synthesis and photodegradation ability, **D.P. Das***, A. Samal, J. Das, A. Dash, H. Gupta, *Photochem. Photobiol.* 90 (2014) 57-65 (doi: 10.1111/php.12172) (IF = 2.287).
18. Visible light induced photo-hydroxylation of phenol to catechol over RGO- Ag_3VO_4 nanocomposites without the use of H_2O_2 , **D.P. Das***, R.K. Barik, J. Das, P. Mohapatra, K.M. Parida, *RSC Adv.* 2 (2012) 7377-7379 (doi: 10.1039/C2RA20703F) (IF = 4.036).
19. Facile synthesis of visible light responsive $\text{V}_2\text{O}_5/\text{N,S-TiO}_2$ composite photocatalyst: enhanced hydrogen production and phenol degradation, S. Martha, **D.P. Das**, N. Biswal, K.M. Parida, *J. Mater. Chem.* 22 (2012) 10695-10703 (doi: 10.1039/c2jm30462g) (IF = 6.101).
20. Facile fabrication of aluminum promoted vanadium phosphate: a highly active heterogeneous catalyst for isopropylation of toluene to cymene, G.C. Behera, K.M. Parida, **D.P. Das**, *J. Catal.* 289 (2012) 190-198 (doi: 10.1016/j.cat.2012.02.004) (IF = 6.002).
21. Solar-light induced photodegradation of organic pollutants over CdS-pillared zirconium-titanium phosphate (ZTP), **D.P. Das***, N. Biswal, S. Martha, K.M. Parida, *J. Mol. Catal. A: Chem.* 349 (2011) 36-41 (doi: 10.1016/j.molcata.2011.08.012) (IF = 3.187).

22. Efficient hydrogen production by composite photocatalyst CdS-ZnS/Zirconium-titanium phosphate (ZTP) under visible light illumination, N. Biswal, **D.P. Das***, S. Martha, K.M. Parida, *Inter. J. Hydro. Ener.* 36 (2011) 13452-13460 (doi: 10.1016/j.ijhydene.2011.07.106) (IF = 3.548).
23. Fabrication of VMn@mesoporous silica for epoxidation of cyclohexene, **D.P. Das***, K.M. Parida, *J. Por. Mat.* 19 (2012) 225-232 (doi: 10.1007/s10934-011-9464-y) (IF = 1.348).
24. Fabrication of nanocrystalline LaFeO₃: An efficient sol-gel auto-combustion assisted visible light responsive photocatalyst for water decomposition, K.M. Parida, K.H. Reddy, S. Martha, **D.P. Das** and N. Biswal, *Inter. J. Hydro. Ener.* 35 (2010) 12161-12168 (doi:10.1016/j.ijhydene.2010.08.029) (IF = 3.548).
25. Facile fabrication of hierarchical N-doped GaZn mixed oxides for water splitting reaction, K.M. Parida, S. Martha, **D.P. Das** and N. Biswal, *J. Mater. Chem.* 20 (2010) 7144-7149 (doi: 10.1039/c0jm01098g) (IF = 6.101).
26. Visible-light response photocatalytic water splitting over CdS-pillared zirconium-titanium phosphate (ZTP), K.M. Parida, N. Biswal, **D.P. Das*** and S. Martha, *Inter. J. Hydro. Ener.* 35 (11) (2010) 5262 (doi:10.1016/j.ijhydene.2010.03.017) (IF = 3.548).
27. Synthesis and surface properties of silica spheres with core shell structure by one convenient method, **D.P. Das**, K.M. Parida and B.K. Mishra, *Res. Lett. in Mat. Sci. Volume 2009, Article ID 328508* (doi:10.1155/2009/328508) (IF = 0.5).
28. Enhanced catalytic activity of Ti, V, Mn- grafted silica spheres towards epoxidation reaction, **D.P. Das*** and K.M. Parida, *Catal. Lett.* 128 (2009) 111 (doi:1007/s10562-008-9697-9) (IF = 2.244).
29. Solar light driven photocatalytic degradation of pollutants over titania pillared zirconium phosphate and titanium phosphate (Review), **D.P. Das*** and K.M. Parida, *Catal. Surv. from Asia* 12 (2008) 203 (doi:10.1007/s10563-008-9052-6) (IF = 1.897).
30. Fe (III) oxide pillared titanium phosphate (TiP): An effective catalyst for deep oxidation of VOCs, **D.P. Das*** and K.M. Parida, *J. Mol. Catal. A: Chem.* 276 (2007) 17 (doi:10.1016/j.molcata.2007.06.019) (IF = 3.187).
31. Mn (III) oxide pillared titanium phosphate (TiP) for catalytic deep oxidation of VOCs, **D.P. Das*** and K.M. Parida, *Appl. Catal. A: Gen.* 324 (2007) 1 (doi:10.1016/j.apcata.2007.02.024) (IF = 3.410).

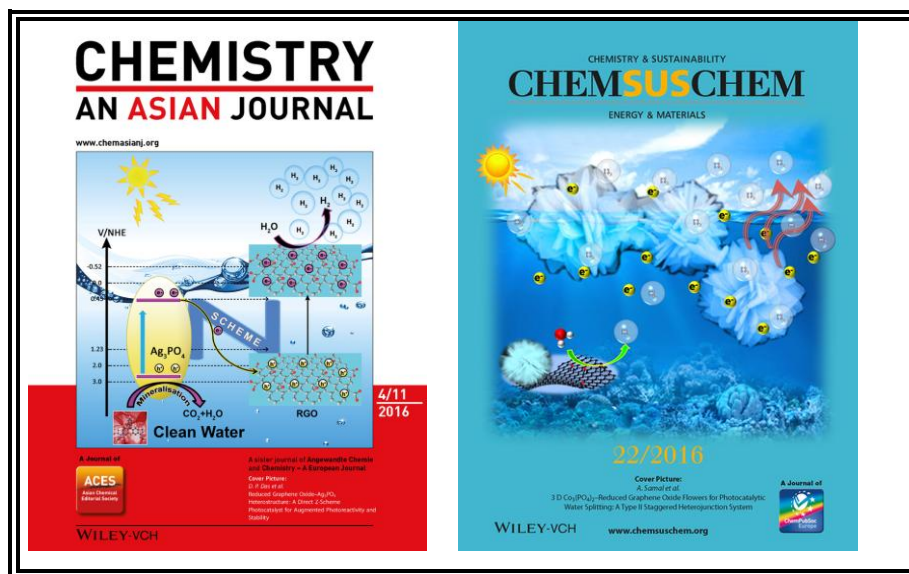
32. A study on the structural properties of mesoporous silica spheres, **D.P. Das***, K.M. Parida and B.K. Mishra, *Mat. Lett.* 61 (2007) 3942 (doi:10.1016/j.matlet.2006.12.084) (IF = 2.224).
33. Photocatalytic decolorisation of methylene blue (MB) over titania pillared zirconium phosphate (ZrP) and titanium phosphate (TiP) under solar radiation, **D.P. Das***, N. Baliarsingh and K.M. Parida, *J. Mol. Catal. A: Chem.* 261 (2007) 254 (doi:10.1016/j.molcata.2006.08.022) (IF = 3.187).
34. Liquid phase bromination of phenol III. Over heteropoly acid (HPA)-impregnated titanium phosphate (TiP), **D.P. Das***, K.M. Parida, *J. Mol. Catal. A: Chem.* 253 (2006) 70 (doi:10.1016/j.molcata.2006.03.017) (IF = 3.187).
35. Liquid phase bromination of phenol II. Over heteropoly acid (HPA)-impregnated zirconium phosphate (ZrP), **D.P. Das***, K.M. Parida, *Appl. Catal. A: Gen.* 305 (2006) 32 (doi:10.1016/j.apcata.2006.02.046) (IF = 3.410).
36. Physico-chemical characterization and photocatalytic activity of zinc oxide prepared by various methods, K.M. Parida, S.S. Dash and **D.P. Das**, *J. Coll. Inter. Sci.* 298 (2006) 787 (doi:10.1016/j.jcis.2005.12.053) (IF = 3.172).
37. Photocatalytic reduction of hexavalent chromium in aqueous solution over titania pillared zirconium phosphate and titanium phosphate under solar radiation, **Dipti Prakasini Das***, Kulamani Parida, Bhudev Ranjan De, *J. Mol. Catal. A: Chem.* 245 (2006) 217 (doi:10.1016/j.molcata.2005.10.001) (IF = 3.187).
38. Liquid phase bromination of phenol over titania pillared zirconium phosphate and titanium phosphate, **Dipti Prakasini Das***, Kulamani Parida, *Catal. Commun.* 7 (2006) 68 (doi:10.1016/j.catcom.2005.08.006) (IF = 2.915).
39. Photo-oxidation of phenol over titania pillared zirconium phosphate and titanium phosphate, **Dipti Prakasini Das***, Kulamani Parida, Bhudev Ranjan De, *J. Mol. Catal. A: Chem.* 240 (2005) 1 (doi:10.1016/j.molcata.2005.06.022) (IF = 3.187).
40. Photo-oxidation of 4- Nitrophenol in aqueous suspensions, catalysed by titania intercalated zirconium phosphate (ZrP) and titanium phosphate (TiP), K.M. Parida, **D.P. Das**, *J. Photochem. Photobio. A: Chem.* 163 (2004) 561 (doi:10.1016/j.jphotochem.2004.02.016) (IF = 2.416).
41. A comparative study on textural characterisation: cation-exchange and sorption properties of crystalline zirconium (IV), tin (IV) and titanium (IV) phosphates, K.M.

- Parida, B.B. Sahu and **D.P. Das**, *J. Coll. Inter. Sci.* 270 (2004) 436 (doi:10.1016/j.jcis.2003.09.045) (IF = 3.172).
42. Studies on Mg/Fe Hydrotalcite-like-compound: Removal of Chromium (VI) from aqueous solution, J. Das, D.D. Das, G.P. Dash, **D.P. Das** and K.M. Parida, *Intern. J. Environ. Studies* 61(5) (2004) 605 (doi:10.1080/0020723042000212627) (IF = 0.8).
43. Physicochemical characterisation and adsorption behavior of calcined Zn/Al hydrotalcite-like-compounds towards fluoride removal from aqueous solution, **D.P. Das**, J. Das and K.M. Parida, *J. Coll. Inter. Sci.* 261 (2003) 213 (doi:10.1016/S0021-9797(03)00082-1) (IF = 3.172).

B ~ PATENTS

1. Carbon quantum dot based MgAl-Layered double hydroxides nanocomposites and preparation thereof, **Dipti Prakasini Das***, Manasa Ranjan Naik, Suprava Dey, Jayanta Kumar Pothal, Bama Prasad Bag, Abhaya Kumar Sahoo, Bikash Kumar Jena, 0025NF2022 Date: 17.05.2022.
2. Reduced graphene oxide-silver phosphate (RGO-AgP) and a process for the preparation thereof for the photodegradation of organic dyes, **D.P. Das***, A. Samal, J. Das, A. Dash (PCT/IN2013/000575, 24.09.2013, WO 2014207754 A1, CA2916855A1, EP3013742A1, **EP3013742B1 Granted on 30.05.2018**).
3. One-pot in-situ photoreduction process for synthesis of a robust reduced graphene oxide-silver phosphate (RGO-AgP) for a swift mineralization of organic textile dyes under visible light illumination, **D.P. Das***, A. Samal, J. Das, A. Dash (1870DEL2013, 26.06.2013, **Granted 01.04.2019**).
4. A hydrothermal fabrication of a novel photocatalyst; BiVO₄ pillared zirconium-titanium phosphate, **D.P. Das***, S. Martha, K.M. Parida (0268DEL2011, 25.01.2012, **Granted on 02.07.2018**).

Cover page gallery:



C-BOOK CHAPTERS

- Carbon-Based Layered Double Hydroxides for Solar Photomineralization of Textile Dye Waste, Manasi Jena, Manasa Ranjan Naik, Jayanta Kumar Pothal, Bikash Kumar Jena, Bama Prasad Bag, and **Dipti P. Das***, Chapter 22 in the Book "Application of Microbial Technology in Wastewater Treatment and Bioenergy Recovery", P. 539, Springer Nature, 2024.
- Graphene : A new form of carbon for future sustainability, Alaka Samal, **Dipti P. Das***, in the volume 'New forms of Carbon', P. 1, Apple Academic Press (AAP), 2024.
- Silver phosphate based photocatalysis: A review from fundamentals to applications, Alaka Samal, Ayonbala Baral, **Dipti P. Das***, in the volume 'Recent Advances in photocatalytic nanomaterial for environmental applications', Materials Research Forum, 2018, Pg. 276-315 (DOI: <http://dx.doi.org/10.21741/9781945291593-10>).
- Facile fabrication of single crystalline ceria nanoparticles for photo-responsive applications, **D.P. Das***, A. Dash, B.K. Mishra*, in the volume 'Photocatalytic Materials and Surfaces for environmental cleanup-II', Materials Science Forum, Switzerland, 734 (2013) 127-137.

Publication in popular magazine :

- Giant 'Nano' Programmes at IMMT, **D.P. Das**, *Nano Digest*, 3 (4) (2011) 20-23.

D ~ PROCEEDINGS

1. Photoresponsive applications of coumarin dye sensitized RGO-TiO₂ nanocomposites, A. Samal, B.K. Mishra, J. Das, **D.P. Das**, International Conference on Nanomaterials & Nanotechnology "NANO15", Chapter: Applications of nanostructured materials for energy & environmental technology, p. 29-32, 7-10th Dec, 2015, Organised by Center for Nanoscience & Technology, Tiruchengode & World class University (WCU), GIST, South Korea.
2. Controlled synthesis of novel urchin like morphology of 1D α -MnO₂: Evolution and catalytic activities, Ayonbala Baral, M.K. Ghosh, **D.P. Das**, International Conference on Nanomaterials & Nanotechnology "NANO15", Chapter: Applications of nanostructured materials for energy & environmental technology, p. 59-62, 7-10th Dec, 2015, Organised by Center for Nanoscience & Technology, Tiruchengode & World class University (WCU), GIST, South Korea.
3. xRGO-Ag₃PO₄; An outstanding catalyst for fast adsorptive-degradation of textile dyes under visible light illumination, A. Samal, **D.P. Das**, J. Das, N. Biswal, p. 132, 21st National Symposium On Catalysis "Catalysts For Sustainable Development" (CATSYMP-21), 10-13th February, 2013, Organised by CSIR-Indian Institute of Chemical Technology & CSIR.
4. One-pot photocatalytic route for synthesis of RGO-Ag₃VO₄ nanocomposites for catalytic applications, **D.P. Das**, A. Samal, J. Das, K.M. Parida, p. 165, 21st National Symposium On Catalysis "Catalysts For Sustainable Development" (CATSYMP-21), 10-13th February, 2013, Organised by CSIR-Indian Institute of Chemical Technology & CSIR.
5. Visible light response photocatalytic hydrogen production over CdS-ZnS/Zirconium-titanium phosphate (ZTP), N. Biswal, **D.P. Das**, S. Martha, K.M. Parida, p. 130, 21st National Symposium On Catalysis "Catalysts For Sustainable Development" (CATSYMP-21), 10-13th February, 2013, Organised by CSIR-Indian Institute of Chemical Technology & CSIR.
6. Decomposition of water over novel visible light responsive oxide catalyst, S. Martha, N. Biswal, **D.P. Das** and K.M. Parida, National Workshop on Development of Novel

- Materials for Hydrogen Production and Photocatalysis (DNHP-2010), 26-27th March, 2010, Organised by Institute of Minerals and Materials Technology (IMMT), Bhubaneswar.
7. Fabrication of novel CdS-pillared zirconium-titanium phosphate (ZTP) for photocatalytic applications, N. Biswal, **D.P. Das**, S. Martha and K.M. Parida, National Workshop on Development of Novel Materials for Hydrogen Production and Photocatalysis (DNHP-2010), 26-27th March, 2010, Organised by Institute of Minerals and Materials Technology (IMMT), Bhubaneswar.
 8. Synergism of M, M'-immobilised molecular sieves towards epoxidation of cyclohexene, **D.P. Das** and K.M. Parida, 19th National Symposium on Catalysis (CATSYMP-19), 18-21st January, 2009, Organised by National Chemical Laboratory (NCL), Pune and Catalysis Society of India (CSI).
 9. Ti, V and Mn-grafted silica sphere: Active epoxidation catalysts, **D.P. Das** and K.M. Parida, National Workshop on Catalysis, 18-20th February, 2008, Organised by Institute of Minerals and Materials Technology (IMMT) and Catalysis Society of India (CSI).
 10. Iron containing microwave irradiated zinc oxide: An efficient photo-fenton catalyst for degradation of phenol under UV-irradiation, Sushree S. Dash, **D.P. Das** and K.M. Parida, National Workshop on Catalysis, 18-20th February, 2008, Organised by Institute of Minerals and Materials Technology (IMMT) and Catalysis Society of India (CSI).
 11. Simple method of preparation of hollow mesoporous silica sphere and its characterization, **D.P. Das**, K.M. Parida and B.K. Mishra, 18th National Symposium and Indo-US Seminar on Catalysis, 16-18th April, 2007, Organised by Catalysis Society of India, Indian institute of Petroleum, Petrotech Society and Indo-US S & T Forum (IUSSTF).
 12. Photocatalytic degradation of organic and inorganic pollutants and catalytic decomposition of volatile organic compounds over modified zirconium phosphate, **D.P. Das**, 20th annual conference of Orissa Chemical Society (OCS), 16-17th December, 2006. Jointly organised by National Institute of Science and Technology (NIST), Berhampur, Orissa and NALCO.
 13. Characterisation of porous materials by nitrogen adsorption-desorption method, K. M. Parida, **D.P. Das**, Workshop on "Analytical Instrumental Techniques-Current Trends &

Practices" (20th-23rd June, 2006). Organised by Regional Research Laboratory (CSIR), Bhubaneswar, Orissa, India.

14. Preparation, characterisation and catalytic evaluation of nano manganese oxide and iron oxide pillared titanium phosphate towards complete oxidation of VOCs, **D.P. Das** and K.M. Parida, Indo-Australian Symposium on Nanoscience and Technology (March 31-April 1, 2006), Organised by Indian Institute of Science (IISc), Bangalore and Australian High Commission, New Delhi, p. 28.
15. Photocatalytic degradation of 4-nitrophenol in aqueous suspensions of TiO₂ pillared zirconium phosphate (ZrP) and titanium phosphate (TiP), Kulamani Parida and **Dipti Prakasini Das**, Indo-Italian Workshop On Emerging Technologies for Industrial Wastewater Treatment and Environment (September 2-4, 2002), Organised by National Environmental Engineering Research Institute (NEERI), Nagpur, India and Department of Environmental Sciences, University of Venice, Venice, Italy, p. 181.
16. Effect of preparation method on the physicochemical characteristics and photocatalytic activity of zinc oxide, K.M. Parida, S.S. Dash, **D.P. Das**, Indian Chemical Engineering Congress-2003 (CHEMCON-2003) (19-22 December, 2003), organized by Indian Institute of Chemical Engineers, Orissa state coordination and Regional Research Laboratory, Bhubaneswar (CHM-478, Reaction Engineering).
17. Preparation and characterization of heteropolyacid intercalated Zn/Al hydrotalcite-like-compounds, **D.P. Das**, J. Das, K.M. Parida, Indian Chemical Engineering Congress-2003 (CHEMCON-2003) (19-22 December, 2003), organized by Indian Institute of Chemical Engineers, Orissa state coordination and Regional Research Laboratory, Bhubaneswar (CHM-479, Reaction Engineering).

E - CONFERENCES

International Conferences:

National Seminars/Conferences:

1. One-pot photocatalytic route for synthesis of RGO-Ag₃VO₄ nanocomposites for catalytic applications, **D.P. Das**, A. Samal, J. Das, K.M. Parida, 21st National Symposium On Catalysis "Catalysts For Sustainable Development" (CATSYMP-21), 10-13th February, 2013, Organised by CSIR-Indian Institute of Chemical Technology & CSIR.

2. Ti, V and Mn-grafted silica sphere: Active epoxidation catalysts, **D. P. Das** and K. M. Parida, National Workshop on Catalysis, 18-20th February, 2008, Organised by Institute of Minerals and Materials Technology (IMMT) and Catalysis Society of India (CSI) (Best poster award).
3. Simple method of preparation of hollow mesoporous silica sphere and its characterization, **D. P. Das**, K. M. Parida and B. K. Mishra, 18th National Symposium and Indo-US Seminar on Catalysis, 16-18th April, 2007, Organised by Catalysis Society of India, Indian institute of Petroleum, Petrotech Society and Indo-US S & T Forum (IUSSTF).
4. Photocatalytic degradation of organic and inorganic pollutants and catalytic decomposition of volatile organic compounds over modified zirconium phosphate, **D. P. Das**, 20th annual conference of Orissa Chemical Society (OCS), 2006.
5. Preparation and characterization of heteropolyacid intercalated Zn/Al hydrotalcite-like-compounds, **D. P. Das**, J. Das and K. M. Parida, Indian Chemical Engineering Congress (CHEMCON), 2003.
6. Removal of fluoride by Zn/Al hydrotalcite, **D. P. Das**, J. Das and K. M. Parida, Management of industrial effluents and wastes (MIEW), 2001.

INVITED TALKS / SEMINARS:

- *“Photocatalysis; Labscale to Industrial approach: Difficulties and challenges”*, In monthly **Research Café** of CSIR-IMMT, 27.05.2022.
- *“Patenting – Practical approach”*, On 08th October, 2021 in ‘One Week National Faculty Development Programme on Innovation and Intellectual Property Rights’ in MAITRI programme.
- *“Development of materials for various catalytic applications”*, on 25th January, 2010 on the occasion of Research Scholars’ Day at Institute of Minerals and Materials Technology (CSIR), Bhubaneswar- 751 013.

Honors/Awards

1998	Best graduate: College of Basic Science and Humanities (OUAT), Orissa, INDIA
August 2004 – 2006	Senior Research Fellowship: Council of Scientific and Industrial Research, Govt. of India, New Delhi, India
December 2006	Prof. R. C. Tripathy Young Scientist Award for the year 2006: Orissa Chemical Society (OCS).
May 2007-Dec 2009	Research Associateship: Council of Scientific and Industrial Research, Govt. of India, New Delhi, India
December 2007	Prof. Dayanidhi Pattnaik Award for the year 2007: Orissa Chemical Society (OCS).
September 2012	CSIR-Young Scientist Award in Chemical Sciences
August 2014	Odisha-Young Scientist Award in Physical Sciences-2012

Membership:

1. Life member of **Society for Materials Chemistry** (2025)
2. Life member of **Orissa Chemical Society** (693/2006).
3. Life member of **Catalysis society of India** (LM-195).
4. Life member of **The Indian Science Congress Association** (L19272).
5. Life member of **Indian Institute of Mineral Engineers** (LM939).
6. Life member of **Chemical Research Society of India** (LM1593).
7. Life member of **Materials Research Society of India** (LMB2108).
8. Life member of **Odisha Bigyan Academy** (458).
9. Life member of **Indian Carbon Society** (LM - 444).

Research Group

RESEARCH FELLOWS:

Ms. Manasi Jena (NET CSIR-SRF)

Mrs. Chinmayee Swain (UGC-JRF)

ALUMNI:

Mr. Ranjan Kumar Barik (PA-II, DST Fast track)

Ms. Armita Dash (KVPY Fellow, IISER, Kolkata)

Mr. Dipak Ku. Sahu (NIT, Rourkela)

Mr. Niranjan Biswal
Mr. Bijaya K. Sahu (PA- III, CSC- 135)
Ms. Alaka Samal (AcSIR Ph.D student)
Ms. Ayonbala Baral (AcSIR Ph.D student)
Dr. Suprava Dey (SRF, GAP 323)
Mr. Manas Nayak (JRF, GAP 323, NET)

EXTERNAL PROJECT STUDENT:

PROJECTS:

1. **Development of flexible SERS substrate for Co-PI Microplastics Detection and management through cost-effective photocatalytic Degradation (FBR-EES) (2024-2026)**
2. **Photofunctional materials for Industrial dye mineralization (DST –Technology mission) (2019-22)** Principal Investigator
3. **SPECS (CSC 135, Network project, CSIR) (2012-17)** Principal Investigator
4. **Anchored graphene nanocomposites for catalytic applications (Ph-II, CSIR)** Principal Investigator
5. **Graphene based nanoarchitectures for catalytic applications (DST SERC FAST track scheme) (2011-14)** Principal Investigator
6. **Dye sensitized nanostructured graphene composites for environmental remediation (CSIR YSA research project, YSA-1/2013) (2013-18)** Principal Investigator
7. **Functional hybrid materials for energy and sensing applications (In-house project, MLP 20)** Member

Collaborations

1. Dr. Hariom Gupta, CSIR-CSMCRI, Bhavnagar
2. Dr. Biswarup Satpati, Saha Institute of Nuclear Physics, Kolkata
3. Prof. Giridhar Madras, IISc., Bangalore
4. Sambalpuri Bastralaya

Photos



CSIR-Young Scientist Award for the year 2012 in Chemical Sciences



Odisha-Young Scientist Award for the year 2012 in Physical Sciences