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| **Dr.Dasarath Mal**  **Assistant professor**  **VijaygarhJyotish Ray College**  **Department of chemistry,**  **Vijaygarh, Jadavpur, Kolkata-700032**  **West Bengal, India**  **Mobile: 9836987851** E-mail:  [**dasarath.mal@gmail.com**](mailto:dasarath.mal@gmail.com)  [**dasarathmal@vjrc.ac.in**](mailto:dasarathmal@vjrc.ac.in)  **Date of Birth : 18th May 1976** |  |

**Present Position: Assistant Professor, Department of Chemistry, VijaygarhJyotish Ray, Jadavpur, Kolkata**

**Research fields:1. Gas adsorption and Catalytic Activity of Metal Organic Framework**

**2. Catalytic Activity,Magnetic property, Biological Activitystudies of metal complexes.**

**Expertise: Single crystal X-ray crystallography,**

**Gas Chromatography,**

**Molecular Docking Auto Dock 4.2,**

**Molecular Dynamics NAMD, VMD**

**Summary:**

* **21 years inorganic chemistry research in academia**
* **5years teaching experience in chemistry at UG and PG level**
* **41Publications in Peer-Reviewed Journals**

**Educational Qualifications:**

**Post Doctoral Research Associate: University de Aveiro , Portugal, 2011-2013**

**PhD**:**Jadavpur University**, Kolkata, India. **2008**

***Thesis title***: “**Studies on Some Dicyanamide Based Trasition Metal Complexes**”.

Supervisor: **Prof. SubratanathKoner**

**M. Sc.** :**Vidyasagar University**, **2001**

**Award:**

1. **FCT-International Postdoctoral Fellowship**
2. **NET-2001**
3. **GATE- 2002**

**OngoingResearch project:Studies on Some Metal Organic Frameworks(MOF):**

**Synthesis, Characterization, Selective Gas Adsorption and Heterogeneous Catalysis.**

**28(sanc)-ST/P/S&T/15G-4/2018.**

**Research group:**

**Ph.D. Students: BirendraNathPatra, ArijitSadhukan, Prithwiraj Sasmal**

**Collaborators : 1. Paula Brandao ( University of Aveiro, Portugal).**

**2. Zhi Lin ( University of Aveiro, Portugal)**

**3. Dr.SubratanathKoner (Jadavpur University)**

**4. NayimSepay( LadyBrabourne College)**

**Summary of publications:**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | **S.No.** | | |  |  | | --- | --- | | **Author()** |  | | **Title** | **Name of Journal** | **Volume** | **Page** | **Year** |
| **41** | **A.Sadhukan**, Saha, D. Mal, **N. Sepay** | **Insight intonon-covalent interactions in 1D Gd-basedcoordination polymerfor solid state self-assembly through a new supra molecular Synthon** | **Journal of molecular Structure** | **1272** | **134204** | **2023** |
| **40** | **N. Sepay, S. Chakarborty M. Afjal, A. Alarifi, and D. Mal** | **Identification of 4-acrylamido-N9pyridazin-3-yl)benzamide as anti-COVID-19compound:Adftb,molecular docking , and molecular dynamics study** | **RSC Advances** | **12** | **24178** | **2022** |
| **39** | **M. Ghosh, N. Sepay**  **D. Schollmeyer , H. Sakiyama, M. Mikuriya, D. Mal , A. Gayen , Md. MotinSeikh**  **, SandipSaha** | **Spacers directed self-assembly of heterobimetallic copper(II)-lanthanide**  **(III) [Ln = Nd and Gd] moieties: Syntheses, structural diversities and**  **magnetic properties** | **Polyhedron** | **216** | **115718** | **2022** |
| 38 | B. N. Patra, P. Ghosh, N. Sepay, S. Gayen, S.Koner, P. Brandao, Z. Lin, R.Debnath,J. LPratihar,T. Maity\* and **D. Mal\*** | Aerobic Epoxidation of Olefins by Carboxylate Ligand Based Cobalt(II)Compound: Synthesis, X-ray crystallography and Catalytic Exploration | **Applied organo metallic Chemistry** | **36** | **E6552** | **2022** |
| 37 | [M. Ghosh](https://www.sciencedirect.com/science/article/abs/pii/S0020169321004692" \l "!). P. P. Chakrabarty  A. D.Jana, [D. Schollmeyer](https://www.sciencedirect.com/science/article/abs/pii/S0020169321004692#!), [H. Sakiyama](https://www.sciencedirect.com/science/article/abs/pii/S0020169321004692#!),[M.Mikuriya](https://www.sciencedirect.com/science/article/abs/pii/S0020169321004692#!)[P.Brandão](https://www.sciencedirect.com/science/article/abs/pii/S0020169321004692" \l "!),  [**D. Mal**](https://www.sciencedirect.com/science/article/abs/pii/S0020169321004692#!)\*, S. Saha\* | Ligand mediated structural diversity of copper(II)-azido moiety: Synthesis, structure and magnetic study | [**InorganicaChimicaActa**](https://www.sciencedirect.com/science/journal/00201693) | 531 | 120713 | **2022** |
| 36 | R. Maity, N. Sepay, U. Pramanik, K. Jana, S. Mukherjee, S.Maity,  D. Mal, T Maity, and B. C. Samanta | Exploring the Noncovalent Interactions of the Dinuclear Cu(II) Schiff  Base Complex with Bovine Serum Albumin and Cell Viability againstthe SiHa Cancer Cell Line | **The Journal of Physical Chemistry B** | 41 | 11364 | **2021** |
| 35 | J. L. Pratihar\*, P. Mandal, N. Sepay, **D. Mal**, T. Maity, C. K. Lai, P. Brandão, | Spectroscopic characterization, structural investigation, DFT study, and Hirshfeld surface analysis of Rhodium and Ruthenium amidoazo complexes, | ***J. Mol. Struc*.** | *1241* | 130671 | **2021** |
| 34 | J. Pratihar, P. Mandal, **D. Mal,** C-H. Lin, | Synthesis, characterization, crystal structure and catalytic activity of amidoazopalladium(II) complex | **Transition Metal Chemistry** | **45** | 553 | **2020** |
| 33 | P. Mandal, C-H. Lin, P. Brandao, **D. Mal,** V. Felix, J. Pratihar, | Synthesis, characterization, spectral and  catalytic activity of tetradentate (NNNO) azo-imine Schiff base copper(II) complexes | **Inorg. Chimica. Acta.** | 479 | 221 | **2018** |
| 32 | J. Pratihar, P.Mandal, C-H. Lin, C-K. Lin, **D. Mal**, | Azo-amide palladium(II) complexes: Synthesis,  characterization and application in C–C cross-coupling reactions, | **Polyhedron** | 135 | 224 | **2017** |
| 31 | P. Mandal, C-H. Lin, P. Brandao, **D. Mal**, V. Felix, J. Pratihar, | Synthesis, characterization, structure and catalytic activity of (NNN) tridentate azo-iminenickel(II), palladium(II) and platinum(II) complexes | **Polyhedron** | 106 | 171 | **2016** |
| 30 | R. Sen, D. Saha, S. Koner, **D. Mal,** P. Brandão and Zhi Lin, | pH tuned modulation of 1D chain to 3D MOF:  Synthesis, structure and useful application in heterogeneous Claisen–Schmidt reaction, | ***ChemPlusChem*** | 80 | 591 | **2015** |
| 29 | P. Pattanayak, D. Patra, **D. Mal,**P. Brandão, VitorFelix. | Synthesis and characterization of palladium (II) complex of Schiff base ligand: Chttps://sdfestaticassets-eu-west-1.sciencedirectassets.com/shared-assets/16/entities/sbndS bond cleavage and catalytic activity | Inorg. Chem. Commun. | 53 | 68-71 | **2015** |
| 28 | D. Mal, R. Sen, P. Brandao, F. Shi, R. A. S. Ferreira, Z. Lin | Auxiliary ligand-assisted structural diversities of two coordination polymers with 2-hydroxyquinoline-4-carboxylic acid | Inorg. Chem. Commun. | 40 | 92-96 | **2014** |
| 27 | P. Pattanayak, J. Pratihar, D. Patra, C-H. Lin, P. Brandao, **D. Mal,** V. Felix, Synthesis | Crystal Structures, Spectral Studies And Reactivity of Square Planar Copper(II) Complexes Containing Schiff Base Ligand | **J. Coord. Chem.** | 66 | 568 | **2013** |
| 26 | P. Pattanayak, J. Pratihar, D. Patra, P. Brandao, **D. Mal,** V. Felix, | Synthesis, crystal structure, spectral properties and catalytic activity of a binuclear copper(II) complex containing a Schiff base ligand | Polyhedron | 59 | 23 | **2013** |
| 25 | **D. Mal,** R. Sen, P. Brandão and Z. Lin\*, | Crystallization of five new supramolecular networks with both bpy  and dca ligands, | ***Polyhedron*** | 53, | 249 | **2013** |
| 24 | **D. Mal,** RupamSen, P. Brandão and Z. Lin\*, | Control formation of rigid linear and flexible zig-zig complexes based on Zn(II) and hydroxyquinoline carboxylate ligand system, | ***Inorg.Chem.Commun.*** | 30 | 111 | **2013** |
| 23 | R. Sen, **D. Mal,** P. Brandão, G. Rogez and Z. Lin\*, | A novel 2D→3D polycatenated framework: Synthesis,  characterization and heterogeneous catalytic epoxidation study, | ***Eur. J. Inorg.Chem*** |  | 3076 | 2013. |
| 22 | R. Sen, D. Saha, D. Mal, P. Brandão, G. Rogez    [Zhi Lin](https://onlinelibrary.wiley.com/action/doSearch?ContribAuthorStored=Lin%2C+Zhi) | Synthesis, Structural Aspects and Catalytic Performance of a Tetrahedral Cobalt Phosphonate Framework | ***Eur. J. Inorg.Chem*** | 28 | 5020 | **2013** |
| 21 | 16. R. Sen, **D. Mal,** P. Brandão, G. Rogez and Z. Lin, | Synthesis, characterization and observation of structural  diversities in a series of transition metal based furan dicarboxylic acid system, | ***CrystEngCommun*** | 15 | 2113 | **2013** |
| 20 | 13. R. Sen, DebrajSaha, **D. Mal,** P. Brandão and Z. Lin, | Cobalt based 3D metal-organic frameworks: Useful  candidate for olefin epoxidation at ambient temperature by H2O2, | ***Eur. J. Inorg. Chem,*** | 29 | 5103 | **2013** |
| 19 | R. Sen, D. Saha, **D. Mal,** P. Brandão, G. Rogez and Z. Lin, | A new candidate for heterogeneous catalysis:  Synthesis, structural aspects and olefinicepoxidation of a novel tetrahedral cobalt phosphonate, | ***Eur. J. Inorg.***  ***Chem.*,** | 28 | 5020 | **2013** |
| 18 | R. Sen, **D. Mal,** Paula Brandão and Zhi Lin\*, | Cadmium-furandicarboxylate coordination polymers prepared  with different amine bridging ligands: Synthesis, divergent dimensionalities and luminescence study, | ***Cryst.Growth***  ***Des*** | 13 | 5272 | **2013** |
| 17 | R. Sen, **D. Mal,** P. Brandão, A. M. L. Lopes, J. P. Araújo, and Z. Lin\*, | Layered transition metal carboxylates:  Synthesis, structural aspects and observation of multi-step magnetic transition through phase diagram, | ***Dalton. Trans.*** | 42 | 14836 | **2013** |
| 16 | R. Sen, **D. Mal,** P.Brandao and Z. Lin\*, | Tetraaquabis[2-(pyridin-4-yl-κN)-pyrimidine-5-carboxylato]zinc, | ***ActaCryst*. E** | **68** | m1429 | **2012** |
| 15 | **D. Mal,** R. Sen, P. Brandao and Z. Lin\*, | Bis(2,2´-bipyridine-κ2-N,N´)bis(dicyanamido- κN1)cadmium, | ***ActaCryst*. E** | **68** | m1428 | **2012** |
| 14 | **D. Mal,** R. Sen, E. Rentschler, K.-I. Okamoto,Y. Miyashita and S. Koner\*, | Fully interlocked threedimensional  molecular scaffolding: Synthesis, X-ray structure, magnetic and nitrogen sorption study, | ***Inorg.Chim.Acta*** | 385 | 27 | **2012** |
| 13 | **D. Mal,** R. Sen, G. M. Rosairand, S. Koner\*, | Synthesis, X-ray crystal structure and magnetic study of a μ1,5-  dca bridged dimeric copper(II) complex, | ***J.Chem.Cryst.*** | 41 | 1018 | **2011** |
| 12 | R. Sen, A. Bhattacharya, **D. Mal,** A. Bhattacharjee, P. Gütlich, A. K. Mukherjee, M. Solzi, C. Pernechele,and  SubratanathKoner\*, | A cyano-bridged bimetallic ferrimagnet: Synthesis, X-ray structure and magnetic study: | ***Polyhedron*** | 29 | 2762 | **2010** |
| 11 | R. Sen, S. Bhunia, **D. Mal,** S. Koner\*, Y. Miyashita, K.-I. Okamoto, | Layered Transition Metal  Carboxylates: Efficient Reusable Heterogeneous Catalyst for Epoxidation of Olefins. | ***Langmuir*** | 25 | 13667. | **2009** |
| 10 | **D. Mal,** R. Sen, C. Adhikary, Y. Miyashita, K.-I. Okamoto, A. Bhattacharjee, P. Gütlich and S. Koner\*, | Synthesis, X-ray crystal structure and magnetic study of a *μ1,5* dca bridged ferromagnetic dimeric copper(II)  complex; | ***J.Coord. Chem.*** | 61 | 3486 | **2008** |
| 9 | **D. Mal,** R. Sen, C. Adhikary, A. Bhattacharjee, P. Gütlich, Y. Miyashita, K. –I. Okamoto and S. Koner | Synthesis, X-ray crystal structure and magnetic study of dicyanamido bridged1D chain nickel(II) complex, | ***Inorg.Chim.Acta*** | 361 | 183 | **2008** |
| 8 | D. Mal,C. Adhikary, E. Rentschler,Y. Miyashita,S. Koner | Synthesis, X-ray crystal structure and magnetic study of the 1D {[Cu(N,N-diethyl-1,2ethanediamine)(μ1,5-dca)(dca)]}n complex | *Polyhedron* | 26 | 736 | **2007** |
| 7 | C. Adhikary, **D. Mal,** R. Sen, A. Bhattacharjee, P. Gütlich, S. Chaudhari and S. Koner\*, | Synthesis, X-ray  crystal structure and magnetic study of a novel *μ2*-1,1-azido bridged dimeric copper(II) complex, | ***Polyhedron*,** | 26 | 1658 | **2007** |
| 6 | 2. **D. Mal**, S. Koner, J-P Tuchagues, G. M. Rosair, | Encapsulation of [Mn(bpy)3]2+ cations in 2D  [Mn(dca)3sheet: Synthesis, X-ray structure and EPR study, | *Inorg. Chim. Acta*. | **360** | 3575 | **2007** |
| 5 | C. Adhockery, **D. Mal,** K-I.Okamoto, S. Koner | Synthesis, characterization, X-ray structure and magnetic study of the azido adducts of tridentate (NNO) Schiff base copper (II) complexes | *polyhedron* | **25** | 2191 | **2006** |
| 4 | **D. Mal,** J.-P. Tuchagues, A. K. Boudalis, S. Chakraborty, A. K. Mukherjee, R. Sen and S. Koner\*, | Synthesis, X-ray crystal structure and magnetic study of 1D [Cu2(N,N,N ,N -tetramethyl-ethylenediamine)2( -  1,5-dca)2(dca)2]}n complex, | ***Inorg.Chim.Acta,*** | 359 | 4431 | **2006** |
| 3 | C. Adhikary,**D. Mal,** S. Chaudhuri | Synthesis, characterisation and X-ray structure of an azido adduct of a tridentate (NNO) Schiff base nickel(II) complex | ***J.Coord. Chem*** | 59 | 699 | **2006** |
| 2 | S. Saha,S. Koner, J-P Tuchagues, A. K. Boudalis, K-I Okamoto,|S. Banerjee, and **D. Mal** | Cation-Dependent  Nuclearity of the Copper Azido Moiety: Synthesis,Structure, and Magnetic Study**.** | **Inorg. Chem.** | 44 | 6379 | **2005** |
| 1 | S. Saha, **D. Mal**, S. Koner, A. Bhattacherjee. P. Gütlich, S Mondal, , M .Mukherjee , K- I.Okomoto | Synthesis, X-ray structure and magnetic properties of the azido adducts of quadridentate Schiff base  manganese(III) complexes | **Polyhedron** | 23 | 1811 | **2004** |