



**UNIVERSITY OF CALCUTTA**  
**ACADEMIC DEPARTMENT: CHEMISTRY**  
**FACULTY ACADEMIC PROFILE/ CV**

1. **Full name of the faculty member:** Sasankasekhar Mohanta
2. **Designation:** Professor
3. **Specialisation :** Inorganic Chemistry
4. **Passport size photograph :**



5. **Contact information :**  
 Department of Chemistry, University of Calcutta, 92 A. P. C. Road, Kolkata 700 009. E-Mail: sm\_cu\_chem@yahoo.co.in. Mobile: 9433883751.
6. **Academic qualifications:**

College/ university from which the degree was obtained	Abbreviation of the degree
Ramakrishna Mission Residential College, Narendrapur (Affiliated to University of Calcutta)	B. Sc. (Chemistry)
University of Calcutta	M. Sc. (Chemistry; Inorganic Chemistry Specialization)
Indian Association for the Cultivation of Science, IACS (Degree awarded from Jadavpur University)	Ph. D. (Sc.)  <b>Thesis Title:</b> Magnetic Properties of Phenoxo-Bridged Polynuclear Macrocyclic Complexes <b>Supervisor:</b> Prof. Kamalaksha Nag, FNA, FASc. Department of Inorganic Chemistry, IACS

### 7. Positions held/ holding:

(i) February 1997 – July 1997: Lecturer in Chemistry, Ramakrishna Mission Residential College, Narendrapur (Affiliated to University of Calcutta).

(ii) August 1997 – Till Date : Lecturer, Senior Lecturer, Reader, Associate Professor and **presently Professor** in Department of Chemistry, University of Calcutta.

### 8. Research interests:

- Molecular Magnetism
- Crystal Engineering
- Cocrystals of Metal Complexes
- Copper(II)/Nickel(II)/Iron(III) Metallo–Ligand + Second Metal Ion / Other Species
- Robson Type Unsaturated and Saturated Macrocyclic Chemistry
- Heterometallic Chemistry: 3d–s/p/3d/d<sup>10</sup>/4f/5f  
(s: Li<sup>I</sup>, Na<sup>I</sup>, K<sup>I</sup>, Rb<sup>I</sup>, Cs<sup>I</sup>, Mg<sup>II</sup>, Ca<sup>II</sup>, Sr<sup>II</sup>, Ba<sup>II</sup>; p: Tl<sup>I</sup>, Pb<sup>II</sup>, Bi<sup>III</sup>, In<sup>III</sup>; 3d: Cu<sup>II</sup>, Ni<sup>II</sup>, Co<sup>II</sup>, Fe<sup>II</sup>, Mn<sup>II</sup>, Fe<sup>III</sup>; d<sup>10</sup>: Zn<sup>II</sup>, Cd<sup>II</sup>, Hg<sup>II</sup>, Ag<sup>I</sup>; 4f: 12 Lanthanides Ce<sup>III</sup> – Yb<sup>III</sup>; 5f: Uranyl).
- Biomimetic Inorganic Chemistry
- Steady State and Time-Resolved Photophysical Properties
- Coordination Chemistry

### 9. Research guidance :

Number of researchers awarded M.Phil/ Ph.D degrees : **Thirteen** researchers awarded Ph. D. (Sc.) degree and **Two** researchers submitted their thesis.

Number of researchers pursuing M.Phil/ Ph.D : **Four** researchers pursuing Ph. D. (Sc.)

### 10. Projects :

#### *Completed projects :*

<b>Project Title</b>	<b>Funding Agency</b>	<b>Duration</b>
Structural, Magnetic and Biomimetic Aspects of Designed Di- and Oligonuclear Metal Complex Assemblies	DST, Government of India	2012 – 2015
Properties of 3d and 3d-4f Molecular Assemblies: Structural, Magnetic and Electrochemical studies	DST, Government of India	2008 –.2011
Syntheses and Magnetic Properties of Exchange-Coupled 4f-3d and 4f-Nitroxide (Nitronyl or Imino) Systems: Empirical and Analytical Approach	DST, Government of India	2003 – 2007

*Current projects : NIL*

11. **Select list of publications:**

a) *Journals: (Selected Publications):*

**2019**

119.	Structural Diversity in Heterometallic 3d–Tin Derivatives of Compartmental Schiff Bases Supported by Noncovalent Interactions Hazra, S.; <b>Mohanta, S.</b> <i>Coordination Chemistry Review</i> <b>2019</b> (Accepted); Invited; Special Issue in honour of Prof. Armando J. L. Pombeiro.
118.	Synthesis, Crystal Structure and Spectroscopic Properties of a New Type of Pentanuclear Zinc(II) Complex Hari, N.; Ghosh, S.; <b>Mohanta, S.</b> <i>Inorg. Chim. Acta</i> , <b>2019</b> , <i>491</i> , 34-41.

**2018**

117.	Experimental and Theoretical Exploration of Magnetic Exchange Interactions and Single Molecule Magnetic Behaviour of bis( $\eta^1:\eta^2:\mu_2$ -carboxylate) $Gd^{III}_2/Dy^{III}_2$ Systems Ghosh, S.; Mandal, S.; Singh, M. K.; Liu, C.-M.; Rajaraman, G.; <b>Mohanta, S.</b> <i>Dalton Transactions</i> <b>2018</b> , <i>47</i> , 11455–11469.
116.	A Nickel(II)–Manganese(II)–Azido Layered Coordination Polymer Showing a Three-Dimensional Ferrimagnetic Order at 35 K Ghosh, S.; Roy, S.; Liu, C.-M.; <b>Mohanta, S.</b> <i>Dalton Transactions</i> <b>2018</b> , <i>47</i> , 836–844.
115.	Syntheses, Crystal Structures and Magnetic Properties of a Series of $Zn^{II}_2Ln^{III}_2$ Compounds (Ln = Gd, Tb, Dy, Ho and Er): Contrasting Structural and Magnetic Features Ghosh, S.; Hari, N.; Pinkowicz, D.; Fitta, M.; <b>Mohanta, S.</b> <i>New Journal of Chemistry</i> , <b>2018</b> , <i>42</i> , 15917–15929.
114.	Syntheses, Crystal Structures, Magnetic Properties and ESI-MS Studies of a Series of Trinuclear $Cu^{II}M^{II}Cu^{II}$ Compounds (M = Cu, Ni, Co, Fe, Mn, Zn) Hari, N.; Mandal, S.; Sparkes, H. A.; <b>Mohanta, S.</b> <i>RSC Advances</i> , <b>2018</b> , <i>8</i> , 7315–7329.
113.	Syntheses, Crystal Structures and Magnetic Properties of Two Heterobridged $\mu$ -Phenoxo- $\mu_{1,1}$ -Azide/Isocyanate Dinickel(II) Compounds: Experimental and Theoretical Exploration Mandal, S.; Majumder, S.; Mondal, S.; <b>Mohanta, S.</b> <i>European Journal of Inorganic Chemistry</i> , <b>2018</b> , 4556–4565.
112.	Single Crystal to Single Crystal Transformation and Magnetic Properties of a Series of ‘Butterfly’ $Ni^{II}_2Ln^{III}_2$ compounds: SMM behavior of the Dysprosium(III) analogue Mandal, S.; Ghosh, S.; Takahashi, D.; Christou, G.; <b>Mohanta, S.</b> <i>European Journal of Inorganic Chemistry</i> , <b>2018</b> , 2793–2804.
111.	Syntheses, Crystal Structures and Magnetic Properties of Heterodinuclear Nickel(II)–Manganese(II) Based One and Two-Dimensional Coordination Polymers: Magnetostructural Correlation

	Ghosh, S.; Hari, N.; <b>Mohanta, S.</b> <i>ChemistrySelect</i> <b>2018</b> , 3, 9402–9408.
110.	Dinuclear, Dimer-of-Dinuclear and New Type of Polymeric Metal Complexes of Copper(II)–Zinc(II)/Cadmium(II) Derived from a Less Explored Compartmental Ligand Mandal, S.; Hari, N.; Mondal, S.; <b>Mohanta, S.</b> <i>Inorganica Chimica Acta</i> , <b>2018</b> , 483, 527–538.
109.	Dimeric, Two-Dimensional and Metal-Centered Rectangular Heterometallic Cu <sup>II</sup> –Ag <sup>I</sup> /Cd <sup>II</sup> /Ba <sup>II</sup> Systems Derived from a Single Compartmental Ligand Mandal, S.; Hari, N.; Mondal, S.; <b>Mohanta, S.</b> <i>ChemistrySelect</i> <b>2018</b> , 3, 9610–9616.
108.	Linear Trinuclear Copper(II)-Alkali/Alkaline Earth Metal Compounds Derived from a Compartmental Ligand Mandal, S.; Roy, S.; Mondal, S.; Sparkes, H. A.; <b>Mohanta, S.</b> <i>Inorganica Chimica Acta</i> , <b>2018</b> , 482, 612–620.

### 2017

107.	Syntheses, Crystal Structures and Magnetic Properties of Two Mixed-Valence Co(III)Co(II) Compounds Derived from Schiff Base Ligands: Field Supported Single-Ion-Magnet Behaviour with Easy Plane Anisotropy Mandal, S.; Mondal, S.; Rajnák, C.; Titiš, J.; Boča, R.; <b>Mohanta, S.</b> <i>Dalton Transactions</i> <b>2017</b> , 46, 13135–13144.
106.	Syntheses, Crystal Structures, Magnetochemistry and Catechol Oxidase Activity of a Tetracopper(II) Compound and a New Type of Dicopper(II) Based 1-D Coordination Polymer Mandal, L.; Mandal, S.; <b>Mohanta, S.</b> <i>New Journal of Chemistry</i> <b>2017</b> , 41, 4689–4701
105.	Syntheses, Crystal Structures and Photophysical Aspects of Discrete and Polymeric Azido-Bridged Zinc(II) and Cadmium(II) Complexes: Sensing Properties and Structural Resemblance Roy, S.; Bhattacharya, S.; <b>Mohanta, S.</b> <i>Chemistry Select</i> <b>2017</b> , 2, 11091–11099.
104.	A Bis(Boronic Ester)-Based Fluorogenic and Chromogenic Sensor for F <sup>−</sup> and Cu <sup>2+</sup> Maity, D.; Hari, N.; <b>Mohanta, S.</b> <i>ChemistrySelect</i> <b>2017</b> , 2, 9037 – 9045
103.	Syntheses, Crystal Structures and ESI-MS of Mononuclear–Dinuclear, Trinuclear and Dinuclear Based One-Dimensional Copper(II)–s Block Metal Ion Complexes Derived from a 3-Ethoxysalicylaldehyde–Diamine Ligand Hari, N.; Jana, A.; <b>Mohanta, S.</b> <i>Inorganica Chimica Acta</i> <b>2017</b> , 467, 11–20.
102.	Syntheses, Crystal Structures and Magnetic Properties of Two Ni <sub>4</sub> (μ <sub>3</sub> –phenoxido) <sub>4</sub> Cubanes: Role of Additional Bridging Carboxylates Mandal, L.; Ghosh, S.; Liu, C.-M.; <b>Mohanta, S.</b> <i>Polyhedron</i> <b>2017</b> , 129, 199–207
101.	Syntheses, Crystal Structures, Lone Pair Functionality and Electrospray

	<p>Ionization Mass Spectral Properties of Trinuclear, Dimer of Trinuclear and Trinuclear-Based One-Dimensional Systems of Copper(II) and Lead(II)            Chakraborty, P.; <b>Mohanta, S.</b>  <i>Inorg. Chim. Acta</i> <b>2017</b>, <i>455</i>, 70–80</p>
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## 2016

100.	<p>Syntheses, Crystal Structures and Steady State and Time-Resolved Fluorescence Properties of a PET Based Macrocyclic and its Dinuclear Zn<sup>II</sup>/Cd<sup>II</sup>/Hg<sup>II</sup> Complexes            Mandal, L.; Majumder, S.; <b>Mohanta, S.</b>  <i>Dalton Trans.</i> <b>2016</b>, <i>45</i>, 17365–17381</p>
99.	<p>Heterometallic Copper(II)–Tin(II/IV) Salts, Cocrystals and Salt Cocrystals: Selectivity and Structural Diversity Depending on Ligand Substitution and Metal Oxidation State            Hazra, S.; Chakraborty, P.; <b>Mohanta, S.</b>  <i>Crystal Growth &amp; Design</i> <b>2016</b>, <i>16</i>, 3777–3790</p>
98.	<p>Bis-Phenoxido and Bis-Acetato Bridged Heteronuclear {Co<sup>III</sup>Dy<sup>III</sup>} Single Molecule Magnets with Two Slow Relaxation Branches            Hazra, S.; Titiš, J.; Valigura, D.; Boča, R.; Mohanta, S.  <i>Dalton Transactions</i> <b>2016</b>, <i>45</i>, 7510–7520.</p>

## 2015

97.	<p>Syntheses, Structures and Catecholase Activity of Two Cobalt(III) Complexes Derived from N,N'-Ethylenebis(3-ethoxysalicylaldimine): A Special Host–Guest System from a Special Ligand            Chakraborty, P.; <b>Mohanta, S.</b>  <i>Inorganica Chimica Acta</i>, <b>2015</b>, <i>435</i>, 38–45.</p>
96	<p>Structures and Magnetic Properties of Bis(μ-phenoxido), Bis(μ-phenoxido)-μ-carboxylato and Bis(μ-phenoxido)bis(μ-carboxylato) Fe<sup>III</sup>Ni<sup>II</sup> Compounds – Magnetostructural Correlations            Sasmal, S.; Roy, S.; Carrella, L.; Jana, A.; Rentschler, E.; <b>Mohanta, S.</b>  <i>Eur. J. Inorg. Chem.</i> <b>2015</b>, 680–689</p>
95.	<p>Exploration of Weak Interaction Directed Self-Assemblies on Reacting Mononuclear Copper(II)/Nickel(II)···Water Host···Guest Systems of a Double-Compartment Ligand with Mono/Di/Tricarboxylic Acids            Ghosh, S.; Mandal, L.; <b>Mohanta, S.</b>  <i>Polyhedron</i>, <b>2015</b>, <i>97</i>, 1–12.</p>
94.	<p>Heterometallic Copper(II)–Lead(II), Nickel(II)–Lead(II) and Copper(II)–Indium(III) Compounds Derived from an Acyclic Double-Compartment Schiff Base Ligand            Bhattacharya, S.; <b>Mohanta, S.</b>  <i>Inorganica Chimica Acta</i> <b>2015</b>, <i>432</i>, 169–175.</p>
93.	<p>A Series of M<sup>II</sup>Cu<sup>II</sup><sub>3</sub> Stars (M = Mn, Ni, Cu, Zn) Exhibiting Unusual Magnetic Properties            Mondal, S.; Mandal, S.; Carrella, L.; Jana, A.; Fleck, M.; Köhn, A.; Rentschler, E.; <b>Mohanta, S.</b></p>

	<i>Inorganic Chemistry</i> , <b>2015</b> , <i>54</i> , 117–131.
92.	Mononuclear and Heterometallic Dinuclear, Trinuclear and Dimer-of-Dinuclear Complexes Derived from Single- and Double-Compartment Schiff Base Ligands Having a Less Utilized Diamine Chakraborty, p.; <b>Mohanta, S.</b> <i>Polyhedron</i> , <b>2015</b> , <i>87</i> , 98–108.

**2014**

91.	Syntheses, Crystal Structures and Magnetic Properties of a Series of $\mu$ -Phenoxo- $\mu_{1,1}$ -Carboxylato- $\mu_{1,3}$ -Carboxylato Trinickel(II) Compounds Bhattacharya, S.; Bhattacharya, S.; Sasmal, S.; Carrella, L.; Rentschler, E.; <b>Mohanta, S.</b> <i>Dalton Trans.</i> <b>2014</b> , <i>43</i> , 12065–12076
90	Unprecedented dinuclear Robson type macrocyclic complexes having two +III metal ions in two compartments and the role of the diimino moiety on the stability of metal ion oxidation states Mandal, L.; <b>Mohanta, S.</b> <i>Dalton Trans.</i> <b>2014</b> , <i>43</i> , 15737–15751
89.	Surprising Difference Between Two Closely Similar O(phenoxo) <sub>2</sub> O(ether) <sub>2</sub> Compartments as Host for Aquated Proton and a Novel Type of Host–Guest System Chakraborty, P.; Jana, A.; <b>Mohanta, S.</b> <i>Polyhedron</i> , <b>2014</b> , <i>77</i> , 39–46.
88.	A Tale of Crystal Engineering of Metal Complexes Derived from a Special Ligand Family having a Cosmopolitan Compartment <b>(Invited Highlight)</b> Jana, A.; <b>Mohanta, S.</b> <i>CrystEngComm</i> <b>2014</b> , <i>16</i> , 5494–5515.
87.	Dinuclear, Star-Shaped Tetranuclear and Trinuclear-Based Two-Dimensional Metal Complexes Derived from a Less Investigated Schiff Base Ligand: Syntheses, Crystal structures and Spectroscopic Correlation Mondal, S.; Mandal, S.; Jana, A.; <b>Mohanta, S.</b> <i>Inorganica Chimica Acta</i> <b>2014</b> , <i>415</i> , 138–145.
86.	Discrete Systems and Two-Dimensional Coordination Polymers Containing Potentially Multidentate and Bridging Inorganic Anions: Observation of a New Type of Two-Dimensional Topology Biswas, A.; Jana, A.; Sarkar, S.; Sparkes, H. A.; Howard, J. A. K.; Aliaga-Alcalde, N.; <b>Mohanta, S.</b> <i>Polyhedron</i> <b>2014</b> , <i>74</i> , 57–66.
85.	Crystal Structure and Magnetic Properties of a Hexacopper(II)-Based Azide-Bridged One-Dimensional Coordination Polymer: A New Pattern of Azide-Bridged Network Sasmal, S.; Chakraborty, P.; Bhattacharya, S.; Aliaga-Alcalde, N.; <b>Mohanta, S.</b> <i>Polyhedron</i> <b>2014</b> , <i>73</i> , 67–71.
84.	Exploration of Heterometallic Systems Containing Silver(I) in Acyclic Schiff Base Ligands: Finite and Infinite Self-Assemblies as a Result of Silver(I)–Carbon Bond and Silver(I)–Silver(I) Interaction Biswas, A.; Mondal, S.; Mandal, L.; Jana, A.; Chakraborty, P.; <b>Mohanta, S.</b>

	<i>Inorganica Chimica Acta</i> <b>2014</b> , <i>414</i> , 199–209.
83.	Crystal Structure, Catecholase Activity and ESI-MS of a Mixed Valence Cobalt(III)–Cobalt(II) Complex Derived from a Macrocyclic Ligand: Identification/Proposition of Hydrogen Bonded Metal Complex····Solvent Aggregates in ESI-MS Mandal, L.; Sasmal, S.; Sparkes, H. A.; Howard, J. A. K.; <b><u>Mohanta, S.</u></b> Accepted Manuscript <i>Inorganica Chimica Acta</i> <b>2014</b> , <i>412</i> , 38–45.
82.	Syntheses, Structures, Catecholase activity, Spectroscopy, and Electrochemistry of a Series of Manganese(III) Complexes: Role of Auxiliary Anionic Ligand on Catecholase Activity Chakraborty, P.; Majumder, S.; Jana, A.; <b><u>Mohanta, S.</u></b> <i>Inorganica Chimica Acta</i> <b>2014</b> , <i>410</i> , 65–75.
81.	Synthesis and Crystal Structure of a Triple-Decker Cu <sup>II</sup> <sub>3</sub> Tl <sup>I</sup> <sub>2</sub> Complex: First Example of a Thallium(I) System in Imino-Phenolate Schiff Base Ligand Family Mondal, S.; Nayak, M.; Sparkes, H. A.; Howard, J. A. K.; <b><u>Mohanta, S.</u></b> <i>Journal of Coordination Chemistry</i> <b>2014</b> , <i>67</i> , 72–80

### 2013

80.	Syntheses, Structures, Magnetic Properties, and Density Functional Theory Magneto-Structural Correlations of Bis(μ-phenoxo) and Bis(μ-phenoxo)-μ-acetate/Bis(μ-phenoxo)-bis(μ-acetate) Dinuclear Fe <sup>III</sup> Ni <sup>II</sup> Compounds Hazra, S.; Bhattacharya, S.; Singh, M. K.; Carrella, L.; Rentschler, E.; Weyhermüller, T.; Rajaraman, G.; <b><u>Mohanta, S.</u></b> <i>Inorganic Chemistry</i> <b>2013</b> , <i>52</i> , 12881–12892.
79.	Structures, Magnetochemistry, Spectroscopy, Theoretical Study, and Catechol Oxidase Activity of Dinuclear and Dimer-of-Dinuclear Mixed-Valence Mn <sup>III</sup> Mn <sup>II</sup> Complexes Derived from a Macrocyclic Ligand Jana, A.; Aliaga-Alcalde, N.; Ruiz, E.; <b><u>Mohanta, S.</u></b> <i>Inorganic Chemistry</i> <b>2013</b> , <i>52</i> , 7732–7746.
78.	Dinuclear Mixed-Valence Co <sup>III</sup> Co <sup>II</sup> Complexes Derived from a Macrocyclic Ligand: Unique Example of a Co <sup>III</sup> Co <sup>II</sup> Complex Showing Catecholase Activity Majumder, S.; Mondal, S.; Lemoine, P.; <b><u>Mohanta, S.</u></b> <i>Dalton Transactions</i> <b>2013</b> , <i>42</i> , 4561–4569.
77.	Crystal Structures of Discrete, One-dimensional and Cocrystalline Copper(II)–Uranyl(VI) Systems: the Influence of the Reactant Ratio in the Competition Between Hydrogen Bonds and Coordinate Bonds Bhattacharya, S.; Jana, A.; <b><u>Mohanta, S.</u></b> <i>CrystEngComm</i> <b>2013</b> , <i>15</i> , 10374–10382.
76.	More Surprising Differences Between Two Closely Similar Compartmental Ligand Families and Another Dinuclear Synthron to Stabilize Dinuclear–Mononuclear Cocrystals Biswas, A.; Mandal, L.; Mondal, S.; Lucas, C. R.; <b><u>Mohanta, S.</u></b> <i>CrystEngComm</i> <b>2013</b> , <i>15</i> , 5888–5897.
75.	Metal Complex Analogues of Crown Ethers as the Preorganized Motif to Stabilize Aquated Proton in Solid State

	Jana, A.; Weyhermüller, T.; <b>Mohanta, S.</b> <i>CrystEngComm</i> <b>2013</b> , <i>15</i> , 4099–4106.
74.	Syntheses, Crystal Structures and Magnetic Properties of Three Bis(End-On Azide) Bridged Dicopper(II) Complexes Derived from Half-Condensed Ligands: Observation of the Smallest Cu–azide–Cu Bridge Angle in Dinuclear Systems Mondal, S.; Chakraborty, P.; Aliaga-Alcalde, N.; <b>Mohanta, S.</b> <i>Polyhedron</i> <b>2013</b> , <i>63</i> , 96–102.
73.	Syntheses, Crystal Structures and Spectroscopy of Di/Tri/Tetranuclear Discrete and Co-Crystalline Copper(II)–Na <sup>I</sup> /Zn <sup>II</sup> /Cd <sup>II</sup> Complexes Derived from a Compartmental Ligand: Inconsistency in the Shifting of the Copper(II) d–d Band Bhattacharya, S.; Jana, A.; <b>Mohanta, S.</b> <i>Polyhedron</i> <b>2013</b> , <i>62</i> , 234–242.
72.	Triple Bridged $\mu$ -Phenoxo-Bis( $\mu$ -Carboxylate) and Double Bridged $\mu$ -Phenoxo- $\mu_{1,1}$ -Azide/ $\mu$ -Methoxide Dicopper(II) Complexes: Syntheses, Structures, Magnetochemistry, Spectroscopy and Catecholase Activity Sarkar, S.; Majumder, S.; Sasmal, S.; Carrella, L.; Rentschler, E.; <b>Mohanta, S.</b> <i>Polyhedron</i> <b>2013</b> , <i>50</i> , 270–282.
71.	First Examples of 3d-Uranium Compounds Derived from Single-Compartment Schiff Base Ligands: Syntheses, Crystal Structures and d–d Band Correlation Mandal, L.; Bhattacharya, S.; <b>Mohanta, S.</b> <i>Inorganica Chimica Acta</i> <b>2013</b> , <i>406</i> , 87–94.
70.	Syntheses, Crystal Structures, Magnetochemistry and Electrochemistry of Macrocyclic Dicopper(II) Complexes: Monodentate Behavior of a Potentially Chelating Ligand Jana, A.; <b>Mohanta, S.</b> <i>Inorganica Chimica Acta</i> <b>2013</b> , <i>405</i> , 265–273.
69.	Diaquadinitratouranyl(VI) Enforces the O(Phenoxo) <sub>2</sub> O(Methoxy) <sub>2</sub> Compartment of 3-Methoxysalicylaldehyde-Diamine Ligands to Interact with Water Molecules Bhattacharya, S.; Jana, A.; Fleck, M.; <b>Mohanta, S.</b> <i>Inorganica Chimica Acta</i> <b>2013</b> , <i>405</i> , 196–202.
68.	Syntheses, Characterizations and Crystal Structures of 3d–s/d <sup>10</sup> Metal Complexes Derived from Two Compartmental Schiff Base Ligands Biswas, A.; Mondal, S.; <b>Mohanta, S.</b> <i>Journal of Coordination Chemistry</i> <b>2013</b> , <i>66</i> , 152–170.

## 2012

67.	Syntheses, Structures, and Steady State and Time Resolved Photophysical Properties of a Tetraaminodiphenol Macrocyclic Ligand and Its Dinuclear Zinc(II)/Cadmium(II) Complexes with Coordinating and Noncoordinating Anions Majumder, S.; Mandal, L.; <b>Mohanta, S.</b> <i>Inorganic Chemistry</i> <b>2012</b> , <i>51</i> , 8739–8749.
66.	$\mu$ -Phenoxo- $\mu$ -Pseudohalide and $\mu$ -Pseudohalide Dinuclear, Tetranuclear and One-Dimensional Complexes: Magneto-Structural Correlation and Interesting Type of Solid State Isomerism Sasmal, S.; <b>Mohanta, S.</b>



	<i>Journal of Chemical Sciences</i> <b>2012</b> , <i>124</i> , 1353–1364.
65.	Design of Weak Interaction Directed Self-Assemblies of Nickel(II) Complexes using Diprotonated Diamines as Supramolecular Tectons: Syntheses and Crystal Structures Sarkar, S.; Fleck, M.; <b>Mohanta, S.</b> <i>Journal of Molecular Structure</i> <b>2012</b> , <i>1021</i> , 174–178.
64.	A New Tetraaminodiphenol Macrocyclic Ligand and its Two Dicopper(II) Complexes: Syntheses, Crystal Structures, Electrochemistry, and Magnetochemistry Majumder, S.; Fleck, M.; Lucas, C. R.; <b>Mohanta, S.</b> <i>Journal of Molecular Structure</i> <b>2012</b> , <i>1020</i> , 127–133.

### 2011

63.	Heterobridged Dinuclear, Tetranuclear, Dinuclear-Based 1-D, and Heptanuclear-Based 1-D Complexes of Copper(II) Derived from a Dinucleating Ligand: Syntheses, Structures, Magnetochemistry, Spectroscopy, and Catecholase Activity Majumder, S.; Sarkar, .; Sasmal, S.; Sañudo, E. C.; <b>Mohanta, S.</b> <i>Inorganic Chemistry</i> <b>2011</b> , <i>50</i> , 7540–7554.
62.	Magnetic Exchange Interactions and Magneto-Structural Correlations in Heterobridged $\mu$ -Phenoxo- $\mu_{1,1}$ -Azide Dinickel(II) Compounds: A Combined Experimental and Theoretical Exploration Sasmal, S.; Hazra, S.; Kundu, P.; Dutta, S.; Rajaraman, G.; Sañudo, E. C.; <b>Mohanta, S.</b> <i>Inorganic Chemistry</i> <b>2011</b> , <i>50</i> , 7257–7267.
61.	Syntheses, Structures, and Magnetic Properties of Three One-Dimensional End-to-End Azide / Cyanate Bridged Copper(II) Compounds Exhibiting Ferromagnetic Interaction: New Type of Solid State Isomerism Sasmal, S.; Sarkar, S.; Aliaga-Alcalde, N.; <b>Mohanta, S.</b> <i>Inorganic Chemistry</i> <b>2011</b> , <i>50</i> , 5687–5695.
60.	Slow Magnetic Relaxation and Electron Delocalization in an $S = 9/2$ iron(II/III) Complex with Two Crystallographically Inequivalent Iron Sites Hazra, S.; Sasmal, S.; Fleck, M.; Grandjean, F.; Sougrati, M. T.; Ghosh, M.; Harris, T. D.; Bonville, P.; Long, G. J.; <b>Mohanta, S.</b> <i>Journal of Chemical Physics</i> <b>2011</b> , <i>134</i> , 174507-1–174507-13. Selected as Research Highlight
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2.	Macrocyclic Mononuclear $V^{IV}$ and $V^V$ , Heterodinuclear $V^{IV}Ni^{II}$ , and Heterotrinnuclear $V^{IV}Ni^{II}V^V$ Complexes: Synthesis, Structure, Electrochemistry, and Magnetochemistry Nanda, K. K.; <b>Mohanta, S.</b> ; Ghosh, S.; Mukherjee, M.; Nag, K. <i>Inorganic Chemistry</i> <b>1995</b> , <b>34</b> , 2861–2869.

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1.	A Mononuclear Oxovanadium(IV) Complex $[VO(H_2L)(SO_4)] \cdot 5H_2O$ Derived from a Potentially Dinucleating Tetraaminodiphenol Macrocyclic Ligand ( $H_2L$ ) Ghosh, S.; Mukherjee, M.; Mukherjee, A. K.; <b>Mohanta, S.</b> ; Helliwell, M. <i>Acta Crystallographica Section C</i> 1994, <b>50</b> , 1204–1207.
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- b) **Books/ book chapters** : NIL  
 c) **Conference/ seminar volumes**: NIL  
 d) **Other publications** : NIL

### 12. Membership of Learned Societies:

- (i) Indian Association for the Cultivation of Science, (ii) Indian Chemical Society

### 13. Patents : NIL

### 14. Invited lectures delivered :



Sl. No.	Title of Lecture	Title of Conference /Seminar	Organizer; Date
10	Sharing Our Experience in the Course of Exploring Heterometallic Systems	National seminar on "Emerging Trends in Chemistry"	Department of Chemistry, Jadavpur University; 15 February, 2017
9	Biomimetic Aspects, Magnetic Double Exchange and Magneto-Structural Correlations of Some Macrocyclic 3d Metal ion Complexes	Symposium on Advanced Biological Inorganic Chemistry (SABIC-2017)	IACS Kolkata and TIFR Mumbai; 7-11 January, 2017
8	Some of Our Observations on Magnetic Exchange, Double Exchange and Single Molecule Magnets	Conference on "Modern Trends in Molecular Magnets" (MTMM)	Department of Chemistry, Indian Institute of Technology Bombay; 19-21 May, <b>2016</b>
7	A Tale of Crystal Engineering of Metal Complexes Derived from a Special Ligand Family Having a Cosmopolitan Compartment	International Conference on "Structural Chemistry of Molecules and Materials" (SCOMM-2014)	Jointly by Royal Society of Chemistry and Department of Chemistry of University of Calcutta, IISER Kolkata and Jadavpur University; 30 November – 02 December, <b>2014</b>
6	Magnetic Properties and Crystal Engineering of Systems Obtained on Reacting Copper(II)/Nickel(II) Metallo-Ligands with Various Inorganic/Organic Species	National Symposium on "Recent Advances in Chemistry and Chemical Industry"	Indian Chemical Society; 01-02 August, <b>2014</b> .
5	$\mu$ -Phenoxo- $\mu$ -Pseudohalide and $\mu$ -Pseudohalide Dinuclear, Tetranuclear and One-Dimensional Complexes: Magneto-Structural Correlation and New Type of Solid State Isomerism	XIV National Symposium on "Modern Trends in Inorganic Chemistry"	School of Chemistry, University of Hyderabad; 10-13 December, <b>2011</b>
4	Structural and Magnetic Studies of Discrete and Self-Assembled Metal Complexes Including Two- and Three-Component Cocrystals	National Seminar on "Current Trends in Chemistry – V"	Department of Chemistry, University of Kalyani; 25 February, <b>2011</b> .
3	Structural Diversity of Coordination Compounds Derived from Acyclic	Seventh Chemical Research Society of India (Kolkata Chapter)	Department of Chemistry, Ramakrishna Mission Residential College,

	Compartmental Ligands	Symposium: Current Trends of Chemical Society	Narendrapur; 08 August, <b>2009</b>
2	Surprising Magnetic Exchange Interactions: Our Observations	Acharya Prafulla Chandra Ray Memorial Symposium on Chemistry Today (2009)	Indian Chemical Society; 01–02 August, <b>2009</b> .
1	Inclusion Compounds, Cocrystals, and Strongly Coupled 3d–4f Systems Derived from 3-Ethoxysalicylaldehyde—Diamine Schiff Base Ligands	Sixth Chemical Research Society of India (Kolkata Chapter) Symposium	Department of Chemistry, North Bengal University; 02 August, <b>2008</b>

15. **Awards** : NIL

16. **Other notable activities** : (i) Convener of Ph. D. Committee in Chemistry (Inorganic Chemistry), University of Chemistry, 2013–2018. (ii) Coordinator/Incharge of Single Crystal X-Ray Diffractometer (DST-FIST) at Department of Chemistry, University of Calcutta since its installment in 2009–2010; (iii) Reviewer of various journals like: (a) ACS journals – *Inorganic Chemistry*; (b) RSC journals – *Dalton Transactions*, *CrystEngcomm*, *RSC Advances*, *New Journal of Chemistry*; (c) Wiley journals – *European Journal of Inorganic Chemistry*; (d) Elsevier journals – *Inorganica Chimica Acta*, *Journal of Molecular Structure*, *Spectrochimica Acta Part A*; (e) Taylor and Francis Journals – *Journal of Coordination Chemistry*, *Supramolecular Chemistry*. (iv) Examiner of a number of Ph. D. thesis of other University / IIT.