

## SWAPAN KUMAR CHANDRA

<p><i>Department of Chemistry</i> <i>Visva-Bharati University</i> <i>Santiniketan -731235</i> <b>INDIA</b> <b>Mobile #</b> +91-9064207878 <b>E-MAIL #</b> drswapan63@gmail.com <b>Designation:</b> <i>Professor</i></p>	
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### TEACHING & RESEARCH EXPERIENCE (Ph.D. ONWARDS):

<i>Duration</i>	<i>Institution</i>	<i>Designation</i>	<i>Field of Work</i>
<i>Nov. 1992 – March 1994</i>	IACS, KOLKATA	Research Associate	Synthetic, Structural Inorganic & Bioinorganic Chemistry
<i>March 1994 – March 1997</i>	Kent State Univ., Ohio, <b>USA</b>	Postdoctoral Research Fellow	Kinetics and Mechanistic Chemistry
<i>April 1997 – March 1998</i>	Indiana Univ., Indiana, <b>USA</b>	Postdoctoral Research Associate	Solid State, Structural Inorganic & Magnetochemistry
<i>March 1998 – January 2005</i>	The University of Burdwan, Burdwan	Senior Lecturer in Chemistry	Solid State, Structural Inorganic & Magnetochemistry
<i>January 2005 – Present</i>	Visva-Bharati University, Santiniketan	Professor in Chemistry	Solid State Inorganic, Structural Inorganic & Magnetochemistry

*Total about 26 years of Teaching and / or Research (Ph.D. Onwards) Experience.*

## EDUCATION:

<i>Examination</i>	<i>Council / Board / Univ.</i>	<i>Year of passing</i>	<i>Division / Class</i>	<i>% of Marks</i>	<i>Rank</i>
Madhyamik	W. B. Board of Sec. Edu.	<b>1979</b>	<b>Ist</b>	64.1	—
Higher Sec.	W. B. Council of H.S. Edu.	<b>1981</b>	<b>Ist</b>	63.5	—
B.Sc.(Hons.) in Chemistry	The Univ. of Burdwan, Burdwan, WB.	<b>1984</b>	<b>Ist</b>	69.2	<b>2<sup>nd</sup></b>
M.Sc. (Inorg. Chem. Spl.)	The Univ. of Burdwan, Burdwan, WB.	<b>1986</b>	<b>Ist</b>	70.1	<b>2<sup>nd</sup></b>
Ph.D. (Science)	Jadavpur University, Kolkata	<b>1992</b>	—	—	—

## RESEARCH PROJECTS:

<i>Sl. No</i>	<i>Grant Agency</i>	<i>Title of the Project</i>	<i>Duration</i>	<i>Budget (Rs.)</i>	<i>Status</i>
1.	<b>CSIR</b>	“Manganese Complexes with Polydentate Ligands. Synthesis, Spectra, Redox, Magnetic and Structural Studies along with their Biological Relevences”	01.08.2000 to 31.07.2003	7 lakhs	<b>Completed</b>
2.	<b>CSIR</b>	“Synthesis, Characterization, Structure & Magnetic Properties of Mono-, Di- & Polynuclear Transition Metal Complexes”	01.06.2003 to 31.05.2006	10.5 lakhs	<b>Completed</b>
3.	<b>DST</b>	“Synthesis, Spectral, Electrochemical and Magnetic Studies of First Transition Metal Complexes”	01.09.2004 to 31.08.2007	16.1 lakhs	<b>Completed</b>

4.	<b>CSIR</b>	“Homo- and Hetero-Metallic Transition Metal Compounds”	01.12.2006 to 30.11.2009	12.6 lakhs	<b>Completed</b> .
5.	<b>DST</b>	“Flexible Multidentate N and/or O Ligated Transition Metal Complexes: Characterisation and Properties ”	01.11.2007 to 31.10.2010	18.6 lakhs	<b>Completed</b> .
6.	<b>CSIR</b>	“Transition Metal Compounds with Potential Bridging Function Containing Polydentate Ligands”	01.01.2010 to 31.12.2012	9.5 lakhs (approx.)	<b>Completed</b> .
7.	<b>DST</b>	“Synthesis, structure, characterization and magnetic properties of transition metal complexes with multidentate ligands”	01.06.2013 to 31.05.2016	24 lakhs (approx.)	<b>Completed</b> .
8.	<b>DST- WB</b>	"Magnetically Promising Homo and Heterometallic Molecules"	01.04.2016 to 31.03.2019	10.43 (lakhs)	<b>Completed</b> .
9.	<b>CSIR</b>	<i>"Exploring Flexible Chelates as Platform for Multimetallic Compounds: A Detailed Investigation on their Synthesis, Characterization and Applications as Chemo- and Bio-Sensors"</i>	Sanctioned Recently (to be started)	—	<b><i>Is in progress.</i></b>

### Research Guidance:

Ph.D. awarded: 6; Master’s level project work: 52

### CITATIONS

CITATIONS	ALL	Since 2014
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<b>Citations</b>	1295	261
<b>h-index</b>	20	8
<b>i10-index</b>	31	6

### **Awards/Recognitions:**

- i).** Awarded **National Scholarship**.
- ii).** Stood Second in all University Rank at B.Sc. (Hons.) and M.Sc. Examination at The University of Burdwan, Burdwan.
- iii).** Qualified at the National Eligibility Test (in Chemical Sciences): March, 1988.
- iv).** Worked **more than four years** as **Post-doctoral Research Fellow in two Universities in the USA** in the areas of **Kinetic & Mechanistic Chemistry and Structural & Magnetochemistry**, respectively with **Prof. Edwin S. Gould** (Kent State University, USA) and **George Christou** (Indiana University, USA).

### **Representative LIST of Publications**

*Publications: Total about 60 (25 publications having impact factor of about 4 and above)*

- 1.** “Octadentate flexible ligands as a platform for a variety of homo and heterometallic complexes containing diphenoxido and phenoxido/azido bridging groups: synthesis, structure and magnetic properties”, K. Pramanik, P. Malpaharia, E. Colacio, B. Das and **S. K. Chandra**, *New J. Chem.*, **2018**, 42, 4332-4342.

2. "Trace Level Recognition of Zn<sup>2+</sup> and Cd<sup>2+</sup> by Biocompatible Chemosensor inside Androecium, Diagnosis of Pick's Disease from Urine and Biomimetic  $\beta$ -Cell Exocytosis", P. Ghosh, K. Pramanik, S. Paul, P. Malpaharia, **S. K. Chandra**, S. Mukhopadhyay and P. Banerjee, *ACS Appl. Bio mater.*, **2018**, *1*, 683-692.
3. "Chelator Probe with Exceptionally High Stokes Shift for Selective Detection of OAc<sup>-</sup> with Red Emission: Application as a Biosensor", K. Pramanik, P. Ghosh, D. Dey, P. Malpaharia, **S. K. Chandra**, S. K. Mukhopadhyay and P. Banerjee, *Chemistry Select*, **2018**, *3*, 1151-1156.
4. "Understanding of the interactions of ctDNA with an antioxidant flavone analog: Exploring the utility of the small molecule as fluorescent probe for biomacromolecule", A. Karmakar, T. Mallick, M. N. Alam, S. Das, S. Batuta, **S. K. Chandra**, D. Mandal and N. A. Begum, *J. Mol. Structure*, **2018**, *1165*, 276-287.
5. "Ru(II)-based antineoplastic: A "wingtip" N-heterocyclic carbene facilitates access to a new class of organometallics that are cytotoxic to common cancer cell lines", A. Mondal, R. K. Tripathy, P. Dutta, M. K. Santra, A. A. Isab, C. W. Bielawski, H. K. Kisan, **S. K. Chandra** and J. Dinda, *Appl. Organomet. Chem.*, **2018**, e4692.
6. "Tetranuclear [Mn<sub>2</sub>Co<sub>2</sub>], [Mn<sub>2</sub>Fe<sub>2</sub>] and [Mn<sub>2</sub>Mn<sub>2</sub>] Complexes with Defective Double Cubane Core and Phenoxo and Oxo Bridges: Synthesis, Crystal Structure and Electronic Properties", P. Malpaharia, K. Pramanik, J. -P. Costes, J. -P. Tuchagues, B. Moulton, M. J. Zaworotko, B. Das and **S. K. Chandra**, *Eur. J. Inorg. Chem.*, **2014**, 3527-3535.
7. "Stepwise Formation of a Pentanuclear Ni<sub>4</sub>Cu Heterometallic Complex Exhibiting a Vertex-Sharing Defective Double-Cubane Core and Diphenoxo and Phenoxo/azide Bridging Groups: A Magneto-Structural and DFT Theoretical Study", K. Pramanik, P. Malpaharia, A. J. Mota, E. Colacio, B. Das, F. Lloret and **S. K. Chandra**, *Inorg. Chem.*, **2013**, *52*, 3995-4001.

8. "A Versatile Series of Nickel(II) Complexes Derived From Tetradentate Imine/Pyridyl Ligands and Various Pseudo-halides: Azide and Cyanate Compared", M. Habib, T. K. Karmakar, G. Aromi, J. Ribas-Ariño, H. K. Fun, S. Chantrapromma and **S. K. Chandra**, *Inorg. Chem.*, **2008**, 47, 4109-4117.
9. "Magneto-Structural Correlations: Synthesis of a Family of End-on Azido Bridged Manganese(II) Dinuclear Compounds with  $S = 5$  Spin Ground State", T. K. Karmakar, B. K. Ghosh, A. Usman, H. K. Fun, E. Rivière, T. Mallah, G. Aromí and **S. K. Chandra**, *Inorg. Chem.*, **2005**, 44, 2391.
10. "Unexpected Diversity within a Family of New Azide-Bridged  $Mn^{II}$  Complexes of Pyridyl/imine Ligands", T. K. Karmakar, G. Aromí, B. K. Ghosh, A. Usman, H. K. Fun, T. Mallah, U. Behrens, X. Solans and **S. K. Chandra**, *J. Mater. Chem.*, **2006**, 16, 278.
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