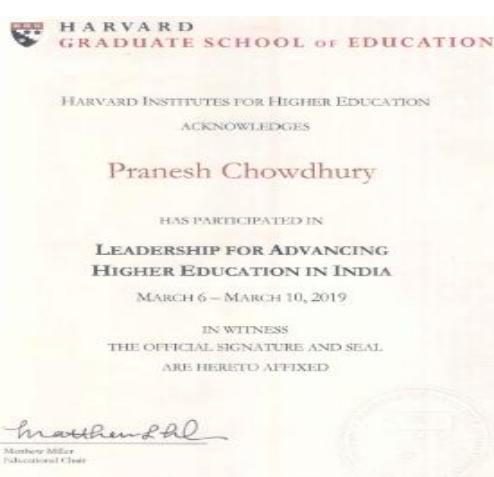


## Professor Pranesh Chowdhury



He completed his B.Sc. and M.Sc. from **Visva-Bharati**, Santiniketan. He carried out his research from **INDIAN INSTITUTE OF TECHNOLOGY**, Kharagpur from 1888 to 1994. He then joined with **NATIONAL INSTITUE OF TECHNOLOGY**, Durgapur, formerly known as **R.E. College** as a faculty. Then he moved to **Visva-Bharati** in the year 2000. Now he is working there as one of the senior Professors.

During this journey, Prof. Chowdhury published more than 100 research papers in the various international journals of repute and already produced 16 successful scholars, who are serving the nation in various disciplines. He completed various research projects, funded by UGC, AICTE, CSIR, DST, etc.



# Current Research Interest

## 1. Fluorescent Organic Polymers

Journal of Molecular Structure 1252 (2022) 132166

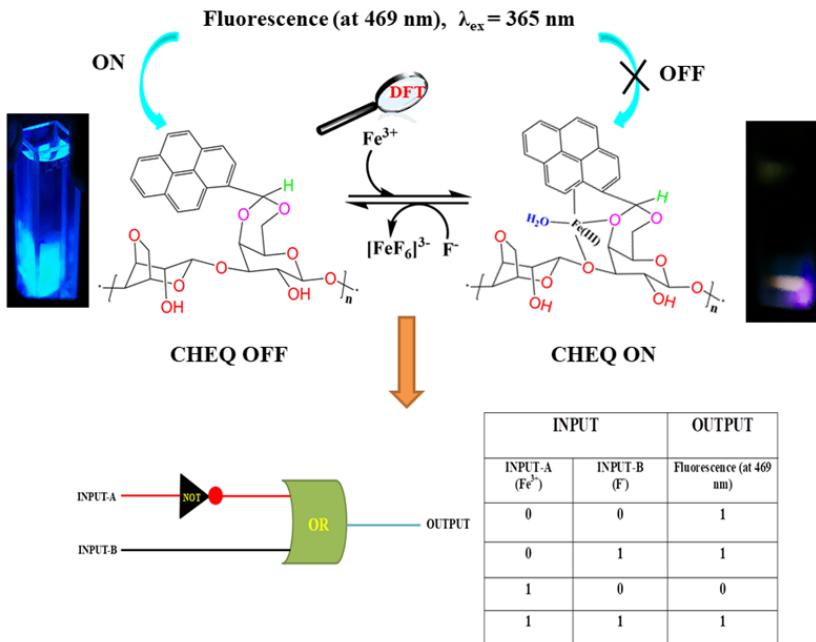


Polymer based ON-OFF-ON fluorescent logic gate: Synthesis, characterization and understanding



Debrupa Biswas, Nandagopal Bar, Sumana Pal, Swapna Kumar Mazumder, Arindam Ray, Shreyashi Chowdhury, Gourab Kanti Das, Pranesh Chowdhury\*

Polymer and Nano Research Laboratory, Department of Chemistry, Siksha-Bhavana, Visva-Bharati University, Santiniketan 731 235, India

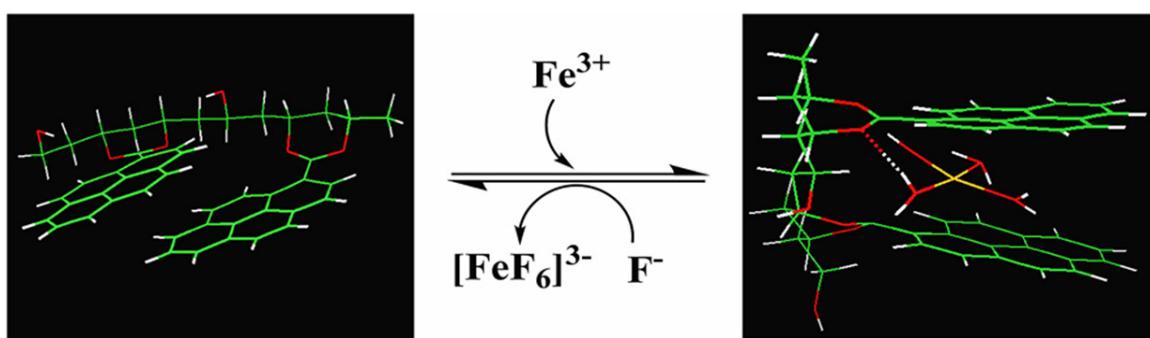




Revisit of dye-anchored poly(vinyl alcohol) through strong experimental evidence and theoretical understanding for the development of a polymeric IMPLICATION logic gate

Debrupa Biswas, Pranesh Chowdhury\*, Nandagopal Bar, Arindam Ray, Gourab Kanti Das

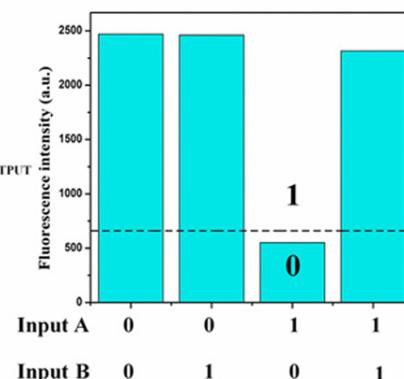
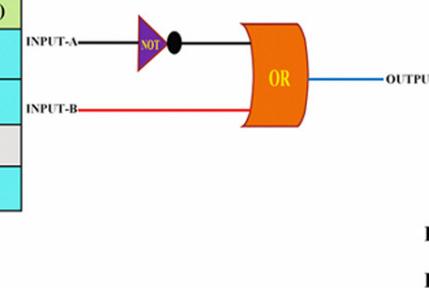
*Polymer & Nano Research Laboratory, Department of Chemistry, Siksha-Bhavana, Visva-Bharati University, Santiniketan, 731 235, India*

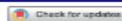


DAPVA Probe  
(Fluorescence ON)

DAPVA-Fe(III) complex  
(Fluorescence OFF)

INPUT		OUTPUT
INPUT-A (Fe <sup>3+</sup> )	INPUT-B (F <sup>-</sup> )	Fluorescence (at 465 nm)
0	0	1
0	1	1
1	0	0
1	1	1





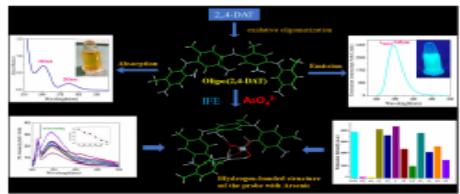
## Improved version of oligo(2,4-diaminotoluene): synthesis, characterization, understanding, and application

Sumana Pal, Pranesh Chowdhury, Nandagopal Bar, Arindam Ray, Debrupa Biswas, and Gourab Kanti Das  
Polymer & Nano Research Laboratory, Department of Chemistry, Siksha Bhavana, Visva-Bharati University, Santiniketan, India

### ABSTRACT

Here, an attempt has been made to synthesize a high-quality fluorescent oligo(2,4-diaminotoluene) suitable for the development of a probe. The work introduces a new unique type of template (i.e., cage made of water-alcohol co-solvents) for oligomer containing 5–6 repeating units with remarkable water solubility and strong photoluminescence. Almost 16-fold enhancement of fluorescence properties compared to analogously structured polymer reported earlier has been achieved through aggregation-induced emission (AIE). Modern techniques like FTIR, NMR, PXRD, TGA, DTG, MALDI-TOF MS, SEM, TEM, SAED, and DLS are used to confirm the formation of the desired oligomer. Due to the high quantum yield (0.49), narrow emission band (full width at half maximum = 45 nm), and suitable chemical structure, the oligomer could be used as a potential fluorescent chemo-sensor for arsenic species. The reproducible LOD (2.47 mM) and wide LDR (0–100 mM) values along with robustness make the system highly relevant as an analytical tool. The structure, spectral properties, and sensing abilities of the oligomer have been understood in the light of computational chemistry.

### GRAPHICAL ABSTRACT



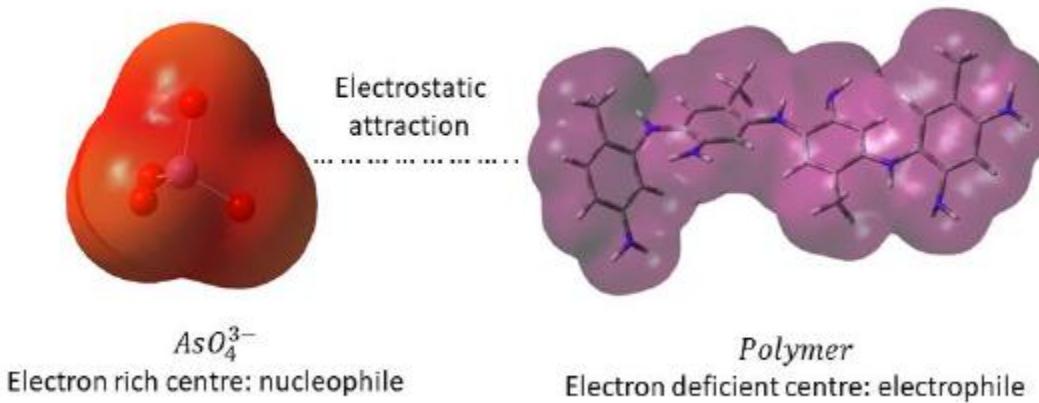
### ARTICLE HISTORY

Received May 2023  
Accepted June 2023

### KEYWORDS

Oligo(2,4-diaminotoluene);  
fluorescence; optical probe;  
arsenic; DFT

Highly negative Highly positive



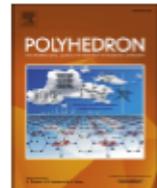
## 2. Fluorescent Schiff base

Polyhedron 243 (2023) 116563



Contents lists available at ScienceDirect

Polyhedron



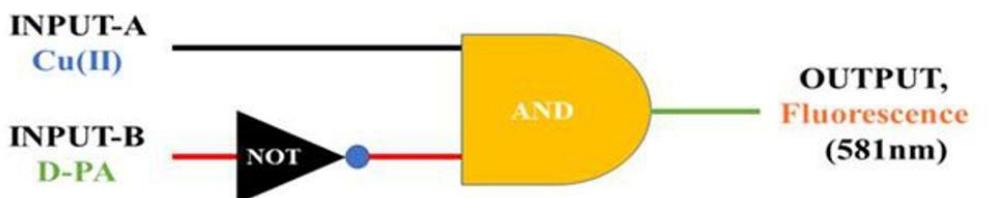
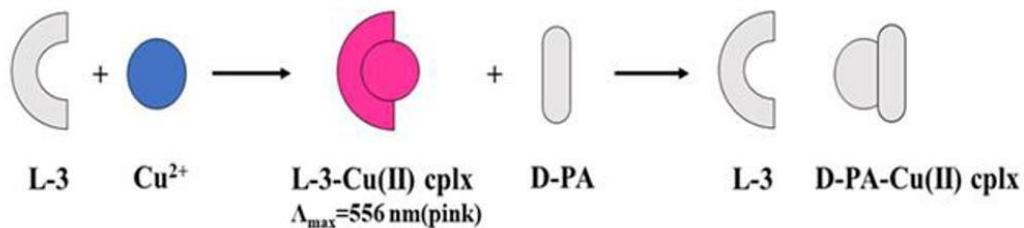
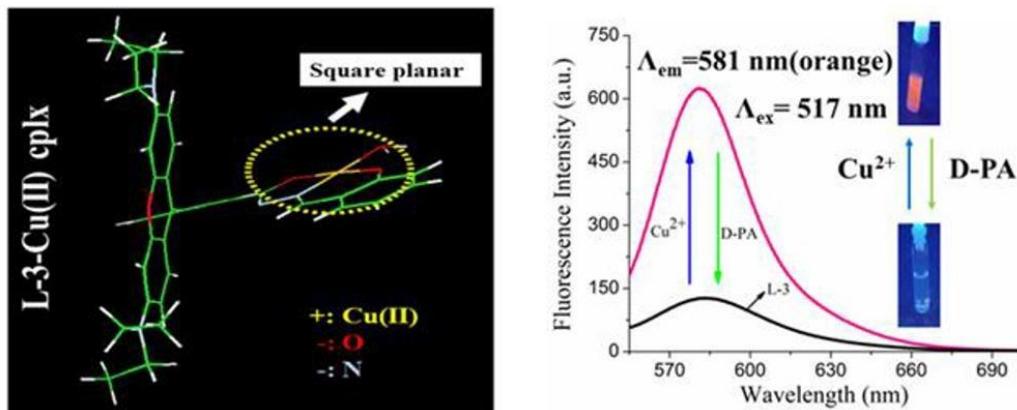
journal homepage: [www.elsevier.com/locate/poly](http://www.elsevier.com/locate/poly)



Revaluation of copper(II)-Schiff base complex for sensing of D-penicillamine and development of a molecular logic gate: A combined approach

Arindam Ray, Nandagopal Bar, Pranesh Chowdhury <sup>\*</sup>, Debrupa Biswas, Keya Ghosh, Ashok Mandi, Gourab Kanti Das

*Polymer and Nano Research Laboratory, Department of Chemistry, Sôksa-Bharana, Visva-Bharati University, Santiniketan 731 235, India*



### 3. Metal-guided photo-chromism

Journal of Photochemistry & Photobiology, A: Chemistry 420 (2021) 113505



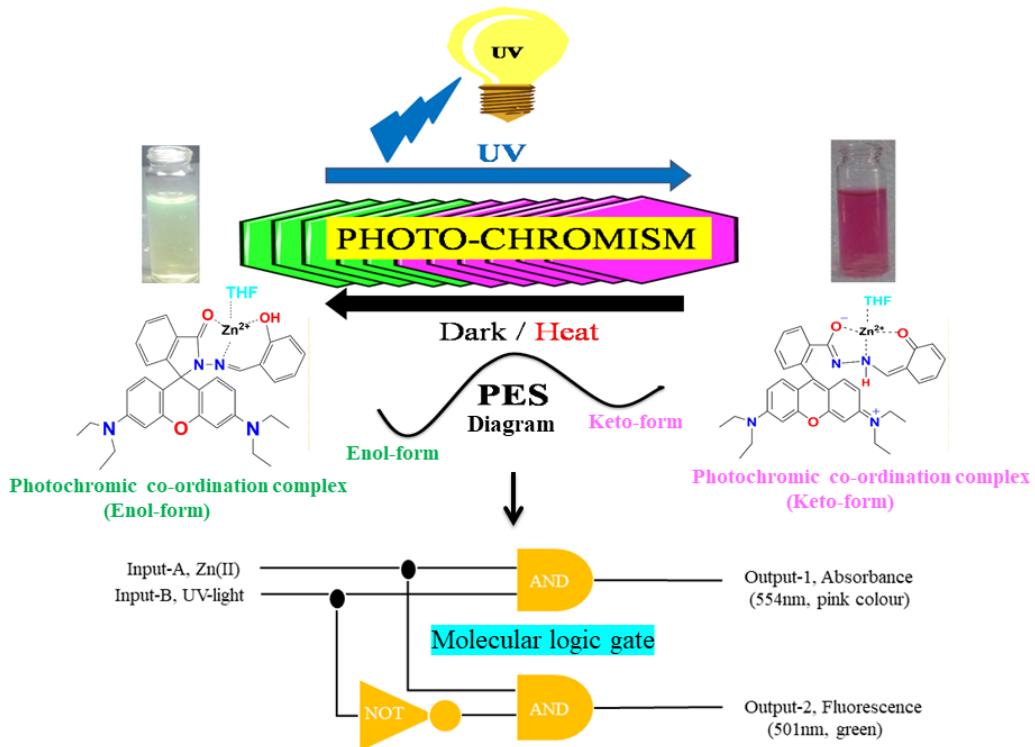
Photochromism of dye containing Schiff base-metal complex: A revisit through spectro-kinetic, thermodynamic and theoretical analyses for the design of a molecular logic gate



Nandagopal Bar<sup>a</sup>, Pranesh Chowdhury<sup>a,\*</sup>, Debiprasad Roy<sup>a</sup>, Sangita Adhikari<sup>a</sup>, Sonjoy Mondal<sup>b</sup>, Gourab Kanti Das<sup>b</sup>, Swapan Kumar Chandra<sup>b</sup>

<sup>a</sup> Polymer & Nano Research Laboratory, Department of Chemistry, Siksha Bhavana, Visva-Bharati University, Santiniketan 731 235, India

<sup>b</sup> Department of Chemistry, Siksha Bhavana, Visva-Bharati University, Santiniketan 731 235, India

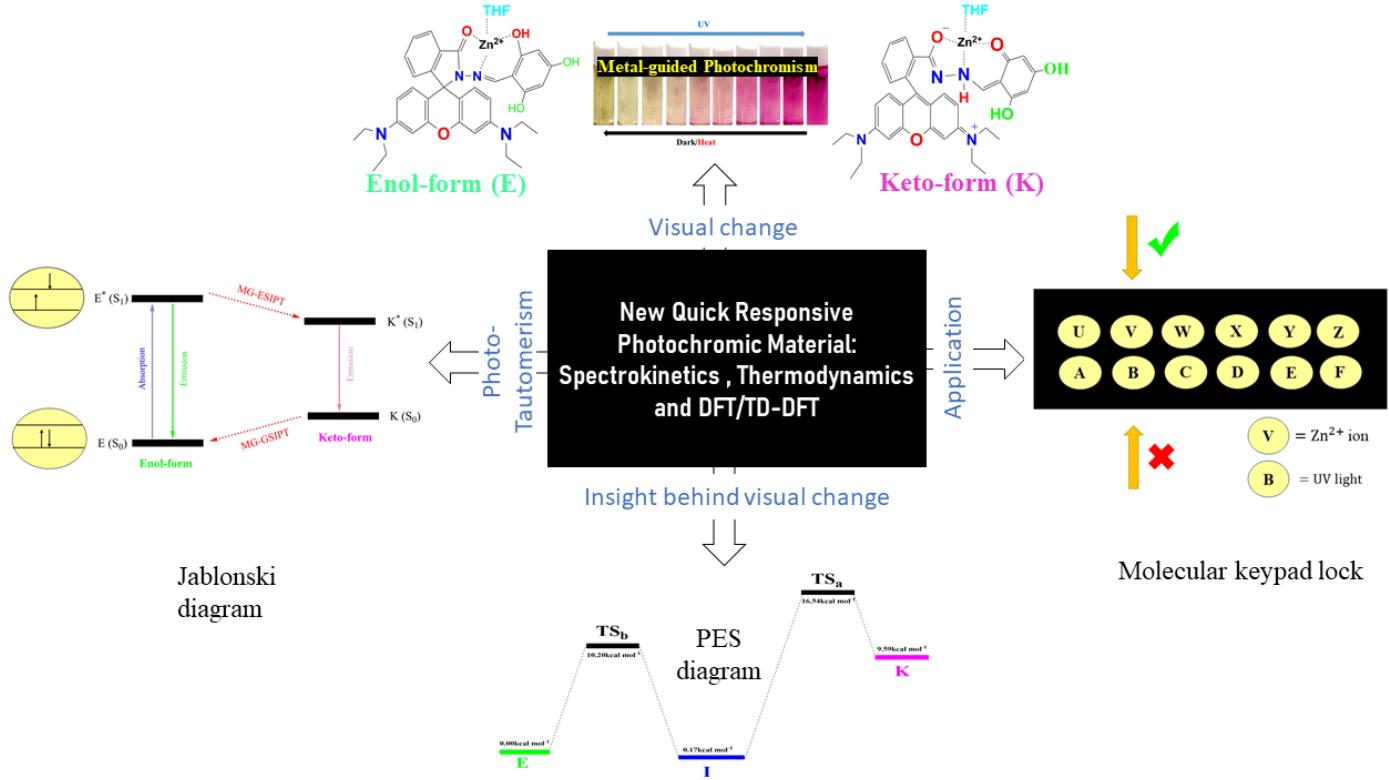




Cite this: DOI: 10.1039/d1nj06158e

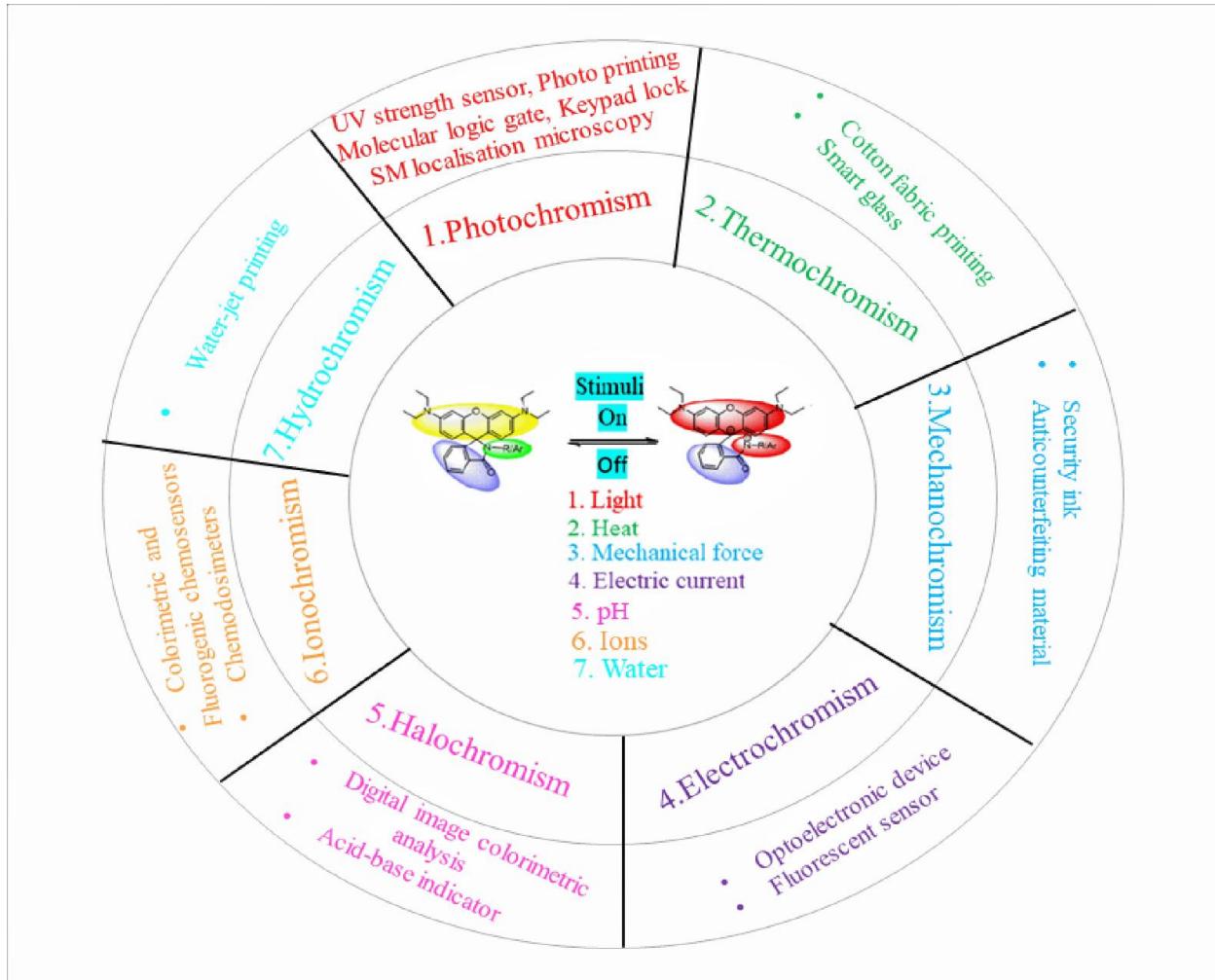
## Synthesis of an advanced metal-guided photochromic system for molecular keypad lock: detailed experimental findings and theoretical understanding<sup>†</sup>

Nandagopal Bar, Pranesh Chowdhury,<sup>ID\*</sup> Debrupa Biswas, Arindam Ray and Gourab Kanti Das



## A Brief Review on Advances in Rhodamine B Based Chromic Materials and Their Prospects

Nandagopal Bar and Pranesh Chowdhury\*



# **Project Ongoing/Completed**

S. No	Title	Agency	Project memo number	Period	Grant (Rs. Lakh)
1	Studies on removal and recovery of Cr(VI) from aqueous solutions	Visva-Bharati University	G/R-6.12 / 1504	2007-2008	0.01560
2	Studies on solid phase extraction of metal ions and their separation	Visva-Bharati University	G/R-6.12 / 1107	2009-2010	0.01480
3	Development of high performance ion-exchange sorbents based on quaternized polyaniline for selective extraction and recovery of chromium(VI) for selective extraction of Cr(VI)	UGC, New Delhi	F.No.32-305/2006 (SR)	2007-2009	1.65
4	Synthesis of high performance polymer nano particles and composites for selective and effective adsorption-desorption of chromium (VI)	UGC, New Delhi	F. No. 37-569/2009 (SR)	2010-2011	02.00
5	Development of high performance ion exchange resin based on quaternized polymers for selective extraction and recovery of chromium from industrial wastewater	CSIR, New Delhi	No.01(2392)/10/EMR-II	2010-2013	15.10
6	Development of new biocompatible hybrid materials based on grafting organic polymers onto inorganic nano particles	CSIR, New Delhi	No.01(2444)/10/EMR-II	2010-2013	16.30
7	Design, synthesis and characterization of new biocompatible hybrid materials based on grafting organic polymers onto inorganic nano particles	DST, New Delhi	No.SR/S3/ME/0018/2010-(G)	2012-2016	35.20
8	Design and synthesis of water soluble conjugate polymer for colorimetric, fluorescent and photochemical probes	CSIR, New Delhi	No.02(0331)/17/EMR-II	2017-2020	26.3

9	Designed synthesis of ultra-bright water-soluble conjugate polymers to explore its colorimetric, fluorescent and photothermal sensing property	SERB, DST, New Delhi	No.EMR/2017/000963	2018-2021	39.5
10	Natural polymer-g-co/ter-polymer interpenetrating polymer network hydrogels for drug delivery applications: synthesis and characterization	UGC, New Delhi	F.4.2/2006/B SR/EN/17-18/0031	2018-2021	18.62
11	Water-soluble fluorescent polymer: Synthesis, characterization and bio-analytical application	SERB, New Delhi	SERB/F/11707/2018-2019	2018-2020	19.2
12	Dye-conjugated colour-tunable fluorescent polymers: Designed synthesis and understanding for optical sensors, molecular logic gates and light-emitting devices	CSIR, New Delhi	No.22/0873/23/EMR-II	2023-2026	20.2

## List of Ph. D. Students & their Placements

Sl. No	Name of the student (Reg. Number)	Title of the thesis	Year of registration & award	Placement
1	Kalyan Adhikari	Studies on groundwater of the areas in and around Durgapur with special emphasis on the role of industrial discharges on groundwater pollution  (Memo. No.Ph.D./Award/(A)/19/1(55); 09.062003)	1999 & 2003	Professor, NIT, Durgapur
2	Bipasa Saha	Studies on electrically conducting polyaniline doped with different acids	2003 & 2009	Scientist, NCL, Delhi
3	Tarakeswar Kundu	Studies on graft polymerization of vinyl monomers onto guar gum in presence of	2004 & 2008	Analyst, DVC, Durgapur

		metal ions		
4	Sudipta Samui	Studies on ceric ion initiated graft polymerization of vinyl monomers onto natural polymers	2004 & 2008	Analyst, DVC, Durgapur
5	Md. Ansar Ali	Studies on graft polymerization of vinyl monomers onto polyvinyl alcohol in presence of transition metal ions  (Memo. No. Exam. Ph.D/2010; 26.02.2010)	2005 & 2010	Professor, Durgapur Govt. College
6	Susanta Pandit	Extraction chromatographic of heavy and toxic metal ions with cross-linked poly acrylic acid	2007 & 2011	Head Master, Siliguri
7	Kousik Roy	Physico-chemical studies on adsorption-desorption behavior of chromium(VI) onto some polymer surfaces	2007 & 2013	Assistant Teacher, Burdwan
8	Abhijit Mukherjee	Studies on metal ion retention properties of poly (vinyl alcohol) based graft copolymer hydrogels  (Memo. No. Exam. Ph.D/2012-13); 30.04.2013	2008 & 2013	Assistant Teacher, Ahamadpur
9	Biswajit Singha	Studies on metal ion retention and recovery behavior of chemically synthesized polyvinyl alcohol based graft copolymers	2008 & 2013	Assistant Teacher, Suri
10	Palash Mandal	Studies on metal ion retention properties of some chemically synthesized polymers and composites	2009 & 2013	Prof. Vivekananda College, Burdwan
11	Shyama P. Bayen	Solid phase extraction of metal ions and their separation with chemically synthesized hybrid materials  (Memo. No. Exam. Ph.D/2015-16); 04.12.2015	2010 & 2015	Assistant Teacher, Santiniketan
12	Swadhin Kumar Saha	Development of new biocompatible hybrid materials based on grafting organic polymers onto inorganic nanoparticles  (Memo. No. Exam. Ph.D/2016-17); 21.11.2016	2011 & 2016	Prof. , Kazi Najrul University

13	Somnath Mondal	Studies on high performance ion exchange resin based on quaternized polymers for selective extraction and recovery of chromium from industrial wastewater	2010 -----	-----
14	Sudarshan Debnath (VB-1849 of 2013-14)	Synthesis and mechanistic aspects of various heterocycles of biological significance  ( <i>Memo. No. Exam. Ph.D/2017-18</i> ); 02.11.2017	2013 & 2017	-----
15	Suniti Malakar (VB-2105 of 2014-15)	Synthesis of sulfonamides and their biological significance  ( <i>Memo. No. Exam.Ph.D/2019-20</i> ); 17.01.2020	2014 & 2018	-----
16	Bisnu Pada Roy	Design, synthesis and characterization of new biocompatible hybrid materials based on grafting organic polymers onto inorganic nano particles	2012 & -	-----
17	Malay Mondal (VB-1856 of 2013-14)	Graphene Oxide based hybrid materials: Synthesis, characterization and its chemical & biological relevance  ( <i>Memo.No. Exam.Ph.D./2018-19</i> ); 13.08.2019	2013 & 2019	Assistant sTeacher
18	Sajugata Naaz	Water-soluble fluorescent materials: Synthesis characterization and sensing applications	2014 & - -	----
19	Debiprasad Roy (VB-1579 of 2015-16)	Silicon based quantum dots: Synthesis, characterization and the study of their optical relevance  ( <i>Memo. No. Exam. Ph.D/2021-22</i> ); 02.02.2022	2015 & 2022	-----
20	Sumana Pal (VB-702 of 2006-07)	Water-soluble fluorescent polyanilines: Synthesis characterization and sensing applications.	2017 & Th. Sub.	Assistant Teacher
21	Nandagopal Bar (VB-1720 of 2018-19)	Small and macro fluorescent molecules: Synthesis, characterization and analytical relevance	2018	Continuing
22	Debrupa Biswas	SYNTHESIS, CHARACTERIZATION AND APPLICATIONS OF POLYMER	2019	Continuing

	(VB-2156 of 2019-20)	FUNCTIONALIZED FLUORESCENT PROBES		
23	Arindam Ray (VB-1300 of 2017-18)	STUDIES ON FLUORESCENT LABELLING OF POLYMERS AND THEIR ANALYTICAL RELEVANCE	2019	Continuing
24	Swapan K Mazumdar (VB-2180 of 2019-20)	MONOMERIC AND POLYMERIC FLUORESCENT PROBES: SYNTHESIS, CHARACTERIZATION AND ANALYTICAL RELEVANCE	2019	Continuing
25	Ashok Mandi (VB-2006 of 2021-22)	PHOTOCROMIC SCHIFF BASE METAL COMPLEXES:SYNTHESIS, CHARACTERIZATION, UNDERSTANDING, AND APPLICATIONS	2021	Continuing
26	Keya Ghosh (VB-2237 of 2017-18)	SCHIFF BASE CHEMOSENSORS: SYNTHESIS, CHARACTERIZATION, UNDERSTANDING, AND ANALYTICAL RELEVANCE	2021	Continuing

## List of Post Doctoral Fellow

Sl. No	Name	Title	Year	Nature
1	Dr. Ruma Bhattacharya <i>(F.4.2/2006/BSR/EN/17-18/0031)</i>	Natural polymer-g-co/ter-polymer interpenetrating polymer network hydrogels for drug delivery applications: synthesis and characterization	2018-2021	DSKPDF scheme of UGC
2	Dr. Sangita Adhikari <i>(SERB/F/11707/2018-2019)</i>	Water-soluble fluorescent polymer: Synthesis, characterization and bio-analytical application	2018-2021	National post doctoral fellowship scheme of SERB

# List of Publications in Journals

Sl. No	Year	Title of the papers	Name of the authors	Name of the Journals with ISBN	Vol.	Page
1	1992	Use of sulfur bearing rubber accelerators for curing poly acrylic rubber in presence of metal oxides	P.Chowdhury*, M.C.Chakravorti, C.K.Das, T.B.Ghosh	<b>Kautschuk Gummi Kunststoffe</b> ISSN: 0948-3276; Hüthig GmbH	45	1014 - 1018
2	1993	The effect of metal oxides on blocked diamine curing of poly acrylic rubber	P.Chowdhury*, M.C.Chakravorti, C.K.Das	<b>Kautschuk Gummi Kunststoffe</b> ISSN: 0948-3276; Hüthig GmbH	46	781- 784
3	1994	The Role of Metal Oxides in Ammonium Benzoate Curing of Polyacrylic Rubber Both in Presence and Absence of Fillers	P.Chowdhury*, M.C.Chakravorti, C.K Das	<b>International Journal of Polymeric Materials and Polymeric Biomaterials</b> ISSN: 0091-4037 (Print) 1563-535X (Online); Taylor and Francis Ltd <a href="https://doi.org/10.1080/00914039408029329">https://doi.org/10.1080/00914039408029329</a>	23	177- 188
4	1994	The cross-linking of poly acrylic rubber in presence of group IIB metal oxides	P.Chowdhury*, M.C.Chakravorti, C.K.Das	<b>Journal of Applied Polymer Science</b> ISSN: 0021-8995(print); 1097-4628(online); John Wiley & Sons <a href="https://doi.org/10.1002/app.1994.070520908">https://doi.org/10.1002/app.1994.070520908</a>	52	1233 - 1240
5	1994	Use of group IV B metal oxides for curing of poly acrylic rubber	P.Chowdhury*, M.C.Chakravorti, C.K.Das	<b>International Journal of Polymeric Materials and Polymeric Biomaterials</b> ISSN: 0091-4037(print); 1563-535X(online); Taylor and Francis Ltd <a href="https://doi.org/10.1080/00914039408029347">https://doi.org/10.1080/00914039408029347</a>	26	25 - 40
6	1994	The role metal oxides in the MBT curing of poly acrylic rubber	P.Chowdhury*, M.C.Chakravorti, C.K.Das	<b>Macromolecular Reports</b> ISSN: 1060-278X; M. Dekker, NY	31	439- 446
7	1994	Effects of group IIB and IVB metal oxides on curing of poly-acrylic rubber	P.Chowdhury*, M.C.Chakravorti, C.K.Das	<b>Kautschuk Gummi Kunststoffe</b> ISSN: 0948-3276; Hüthig GmbH	47	174- 177
8	1995	Effects of fillers on the sulphenamide and thiazole cure of poly acrylic rubber in presence of metal oxides	P.Chowdhury*, M.C.Chakravorti, C.K.Das	<b>Journal of Polymer Engineering</b> ISSN: 2191-0340; De Gruyter <a href="https://doi.org/10.1515/POLYENG.1994.13.4.315">https://doi.org/10.1515/POLYENG.1994.13.4.315</a>	13	315- 317
9	1995	Role of PbO in Covulcanization	P.Chowdhury*, M.C.Chakravorti,	<b>Journal of Applied Polymer Science</b> ISSN: 0021-8995(print); 1097-4628(online); John	55	841-

		Carboxylated Nitrile-Polyacrylic Rubber Blend in the Presence of Ethylene Thiourea or Mercapto-benzothiazole	C.K.Das	Wiley & Sons <a href="https://doi.org/10.1002/app.1995.070550601">https://doi.org/10.1002/app.1995.070550601</a>		849
10	1998	Graft polymerization of methyl methacrylate onto poly vinyl alcohol using Ce <sup>4+</sup> initiator	P.Chowdhury*, M.Banerjee	<b>Journal of Applied Polymer Science</b> ISSN: 0021-8995(print); 1097-4628(online); John Wiley & Sons <a href="https://doi.org/10.1002/(SICI)1097-4628(19981017)70:3&lt;523::AID-APP14&gt;3.0.CO;2-1">https://doi.org/10.1002/(SICI)1097-4628(19981017)70:3&lt;523::AID-APP14&gt;3.0.CO;2-1</a>	70	523-527
11	1998	Graft co-polymerization of ethyl methacrylate onto polyvinyl alcohol using Ce(IV) ion	P.Chowdhury*	<b>Indian Journal of Chemical Technology</b> ISSN: 0971-457X(print); 0975-0991(online); NISCAIR; <b>Corpus ID: 54189502</b>	5	346-350
12	1999	Graft co-polymerization of methyl acrylate onto poly vinyl alcohol using Ce(IV) ion	P.Chowdhury*, C.M. Pal	<b>European Polymer Journal</b> ISSN: 0014-3057; Pergamon/ Elsevier <a href="https://doi.org/10.1016/S0014-3057(99)00017-8">https://doi.org/10.1016/S0014-3057(99)00017-8</a>	35	2207 - 2213
13	1999	Graft co-polymerization of ethyl acrylate onto polyvinyl alcohol using Ce(IV)-dextrose pair	P.Chowdhury*, N.D.Chowdhury	<b>Journal of Polymer Materials</b> Journal ISSN: 9700838; 0973-8622(print); 0976-3449(online); Oxford & I.B.H. Publishing Co. Pvt. Ltd	16	321-327
14	2000	Presence of phenol in the ground water of Durgapur region — The role industrial discharge in ground water pollution	P.Chowdhury*, A.Gagopadhyay, K.Adhikari	<b>Indian Journal of Environmental Protection</b> ISSN: 0253-7141; Kalpana corporation	20	649-657
15	2001	Graft polymerization of methyl methacrylate onto guar gum with ceric ammonium sulphate / dextrose redox pair	P.Chowdhury*, T.Kundu, S.Samui, M.M.Nandi	<b>Journal of Applied Polymer Science</b> ISSN: 0021-8995(print); 1097-4628(online); John Wiley & Sons <a href="https://doi.org/10.1002/app.2214">https://doi.org/10.1002/app.2214</a>	82	3520 - 3525
16	2002	Effect of chain length of alkyl group of alkyl methacrylate on graft polymerization onto polyvinyl alcohol using ceric ion initiator	P.Chowdhury*, T.Kundu, S.Samui, B.Saha	<b>Indian Journal of Chemical Technology</b> ISSN: 0971-457X(print); 0975-0991(online); NISCAIR	9	35 - 40
17	2003	Graft polymerization ethyl methacrylate onto guar gum with ceric ion / dextrose	P.Chowdhury*, T.Kundu, S.Samui, B.Saha,	<b>Indian Journal of Chemical Technology</b> ISSN: 0971-457X (print); 0975-0991(online); NISCAIR	10	38 - 43

		redox pair	A.K.Ghosh			
18	2003	A study on Hall Voltage and electrical resistivity of doped conducting polyaniline	P.Chowdhury*, B.Saha, P.Ghosh, A.Sarkar, A.K.Meikap, S.K.Chattopadhyay, S.K.Chatterjee	<b>Czechoslovak Journal of Physics</b> ISSN: 0011-4627 (print); 0572-9486 (online); Springer <a href="https://doi.org/10.1023/B:CJOP.0000010586.93433.3a">https://doi.org/10.1023/B:CJOP.0000010586.93433.3a</a>	53	1219 - 1227
19	2004	Synthesis and characterization of poly methyl methacrylate grafted acacia gum	P.Chowdhury*, T.Kundu, S.Samui	<b>Journal of Chinese Chemical Society</b> ISSN: 0009-4536 (print); 2192-6549 (online); Wiley-Blackwell <a href="https://doi.org/10.1002/jccs.200400016">https://doi.org/10.1002/jccs.200400016</a>	51	97 - 101
20	2005	Role of 1,10-phenanthroline and phosphoric acid on graft polymerization of vinyl monomers from poly (vinyl alcohol) in the presence of Fenton's reagent	P.Chowdhury*, Md. A. Ali	<b>Journal of Applied Polymer Science</b> ISSN: 0021-8995(print); 1097-4628(online); John Wiley & Sons <a href="https://doi.org/10.1002/app.21460">https://doi.org/10.1002/app.21460</a>	97	2335 - 2339
21	2005	Potassium dichromate initiated polymerization of aniline	P.Chowdhury*, B.Saha	<b>Indian Journal of Chemical Technology</b> ISSN: 0971-457X(print); 0975-0991(online); NISCAIR; Corpus ID: 56168510	12	671- 675
22	2005	Preparation of Poly (vinyl alcohol) hydro-gel film with acrylic acid for selective absorption of heavy metal ions	P.Chowdhury*, Md.A. Ali	<b>Journal of Polymer Materials</b> ISSN: 0973-8622(print); 0976-3449 (online); Oxford & I.B.H. Publishing Co. Pvt. Ltd <a href="https://digitalcommons.memphis.edu/facpubs/14112">https://digitalcommons.memphis.edu/facpubs/14112</a>	22	277- 282
23	2007	Potassium iodate initiated polymerization of aniline	P.Chowdhury*, B.Saha	<b>Journal of Applied Polymer Science</b> ISSN: 0021-8995(print); 1097-4628(online); John Wiley & Sons <a href="https://doi.org/10.1002/app.24609">https://doi.org/10.1002/app.24609</a>	103	1626 - 1631
24	2007	Effect of 1,10-phenanthroline on the graft polymerization of vinyl monomers onto guar gum in presence of Fenton's reagent	P.Chowdhury*, Md.A.Ali, T.Kundu, A.Ghosh	<b>Journal of Indian Chemical Society</b> ISSN: 0019-4522; Elsevier <a href="https://doi.org/10.5281/zenodo.5811783">https://doi.org/10.5281/zenodo.5811783</a>	84	88 - 92
25	2007	Synthesis, characterization and kinetic studies of PEMA grafted acacia gum	P.Chowdhury*, Md.A.Ali, S.Samui, A.Ghosh	<b>Indian Journal of Chemical Technology</b> ISSN: 0971-457X(print); 0975-0991(online); NISCAIR	14	125- 133

26	2007	Effect of acrylic acid doping on the properties of chemically synthesized poly aniline	P.Chowdhury*, B.Saha, B.Singh, S.Ghosh I.N.Basumallick	<i>Journal of Indian Chemical Society</i> ISSN: 0019-4522; Elsevier	84	176-180
27	2007	Free radical graft polymerization of methyl methacrylate from PVA using $\text{FeCl}_3/\text{K}_2\text{S}_2\text{O}_5$ redox pair	P.Chowdhury*, Md.A.Ali K.Roy	<i>Indian Journal of Chemistry</i> ISSN: 0376-4710; CSIR-NISCAIR	46A	1414 - 1418
28	2007	Graft polymerization of methyl methacrylate onto guar gum in presence of ammonium vanadate and hydrogen peroxide	P.Chowdhury, K.Roy, Md.A.Ali, T.Kundu, A.Ghosh	<i>Journal of Polymer Materials</i> ISSN: 0973-8622(print);0976-3449(online); MD Publications Pvt. Ltd. <a href="https://digitalcommons.memphis.edu/facpubs/13843">https://digitalcommons.memphis.edu/facpubs/13843</a>	24	263-270
29	2008	Electrical-Transport Properties of Iodine-doped Conducting Polyaniline	A.Sarkar,P.Ghosh , A.K.Meikap, S.K.Chattopadhyay,S.K.Chatterjee , P.Chowdhury, K.Roy, B.Saha	<i>Journal of Applied Polymer Science</i> ISSN: 0021-8995(print); 1097-4628(online); John Wiley & Sons <a href="https://doi.org/10.1002/app.27615">https://doi.org/10.1002/app.27615</a>	108	2312 - 2320
30	2008	Vanadium(V) initiated graft copolymerization of vinyl monomers onto polyvinyl alcohol	P.Chowdhury*, Md.A.Ali	<i>Journal of Indian Chemical Society</i> ISSN: 0019-4522; Elsevier <a href="https://doi.org/10.5281/zenodo.5816636">https://doi.org/10.5281/zenodo.5816636</a>	85	600-606
31	2008	Preparation and characterization of silanized silica gel supported polyacrylic acid network polymer and study of its analytical application as selective extractor for lead ion	P.Chowdhury*, S.K.Pandit B. Mondal	<i>Journal of Applied Polymer Science</i> ISSN: 0021-8995(print); 1097-4628(online); John Wiley & Sons <a href="https://doi.org/10.1002/app.28664">https://doi.org/10.1002/app.28664</a>	110	475-480
32	2008	Extraction chromatographic studies of uranium(VI) with cross-linked poly(acrylic acid) coated on silica gel	B.Mondal, P.Chowdhury* S.K.Pandit,	<i>Journal of Indian Chemical Society</i> ISSN: 0019-4522; Elsevier <a href="https://doi.org/10.5281/zenodo.5820255">https://doi.org/10.5281/zenodo.5820255</a>	85	930-935
33	2008	Solid phase extraction of cerium(IV) with crosslinked polyacrylic acid coated on silica gel	P.Chowdhury*,S. K.Pandit, B.Mondal	<i>Indian Journal of Chemistry</i> ISSN: 0376-4710; CSIR-NISCAIR; Corpus ID: 54882334	47 A	1528 - 1532
34	2008	HCL doped polyaniline: An adsorbent for the	P.Chowdhury*,K. Roy, P.Mondal	<i>Journal of Polymer Materials</i> ISSN: 0973-8622(print); 0976-3449(online); MD	25	589-600

		treatment of Cr(VI) contaminated wastewater		Publications Pvt. Ltd		
35	2008	Extraction chromatographic studies of Fe(III) with crosslinked poly(acrylic acid) coated on silica gel	P.Chowdhury*, B.Mondal S.K.Pandit	<b><i>Chemical and Environmental Research</i></b> ISSN: 0971-2151; Karakush Publ. & Media	17	209-219
36	2009	Synthesis of graft copolymer of poly ( acrylic acid) and poly (vinyl alcohol) in the presence methylene bisacrylamide cross-linker and investigation of its efficiency in removing lead ion from aqueous solution	P.Chowdhury*, A.Mukherjee, B.Singha, S.K.Pandit	<b><i>Journal of Macromolecular Science, Part A: Pure and Applied Chemistry</i></b> ISSN: 1060-1325 print; 1520-5738 online; TAYLOR & FRANCIS INC  <a href="https://doi.org/10.1080/10601320902797855">https://doi.org/10.1080/10601320902797855</a>	46	547-553
37	2009	Solid phase extraction of Hg(II) ions with cross-linked poly (acrylic acid) coated on silanized silica gel	P.Chowdhury*, S.K.Pandit, B.Mondal	<b><i>Journal of Indian Chemical Society</i></b> ISSN: 0019-4522; Elsevier  <b>DOI:</b> <a href="https://zenodo.5809971">10.5281/zenodo.5809971</a>	86	377-382
38	2009	Studies on adsorption and desorption of Cr(VI) onto chemically synthesized hydrochloric acid doped polyaniline surface	P.Chowdhury*, K.Roy, P.Mondal	<b><i>The Open Macromolecule Journal</i></b> ISSN: 1874-3471; Bentham Science	3	6-12
39	2009	Synthesis of cross-linked graft co-polymer from acrylic acid, poly (vinyl alcohol) and glutaraldehyde for extraction of lead ion from aqueous solution	P.Chowdhury*, A.Mukherjee, B.Singha, S.K.Pandit	<b><i>Fibers and Polymers</i></b> ISSN: 1229-9192; Springer  <a href="https://doi.org/10.1007/s12221-009-0562-2">https://doi.org/10.1007/s12221-009-0562-2</a>	10	562-567
40	2009	Studies on adsorption and desorption of Cr(VI) onto Aliquat 336 impregnated silica gel	P.Chowdhury*, P.Mondal	<b><i>International Journal of Wastewater Treatment and Green Chemistry</i></b> ISSN: 0976-6200; Research Science Press	1	23-28
41	2009	Role of polymers in the removal and recovery of chromium from wastewater	P.Chowdhury*	<b><i>Journal of Macromolecular Science, Part A: Pure and Applied Chemistry</i></b> ISSN: 1060-1325 print; 1520-5738 online; Taylor & Francis  <b>DOI:</b> <a href="https://doi.org/10.1080/10601320903158784">10.1080/10601320903158784</a>	46	1030 - 1038
42	2009	Synthesis of Pt nano electrocatalyst for	P.Chowdhury*, M.Chatterjee,	<b><i>ECS Transaction</i></b>	19	87-

		methanol oxidation using polymer template	S.Ghosh, I.N.Basumallick	ISSN: 1938-5862; The Electro Chemical Society <b>DOI: 10.1149/1.3265872</b>		95
43	2009	Investigation of Th(IV) separation on silica gel supported cross-linked poly(acrylic acid)	B.Mondal, P.Chowdhury*, S.K.Pandit	<b>Chemical Environmental Research</b> <b>0971-2151; 0.5432</b>		
44	2010	Synthesis of cross-linked graft copolymer from [2-(methacryloxy) ethyl] trimethylammonium chloride and poly(vinyl alcohol) for removing chromium(VI) from aqueous solution	P.Chowdhury*, K.Roy, P.Mondal	<b>Polymer Bulletin</b>  ISSN: 0170-0839; Springer  <a href="https://doi.org/10.1007/s00289-009-0146-8">https://doi.org/10.1007/s00289-009-0146-8</a>	64	351-362
45	2010	Adsorption and Separation of Mercury: Sorption-Desorption of Hg <sup>2+</sup> with Cross-Linked Graft Copolymer of Acrylic Acid and its Application in the Metal Ion Separation Process	P.Chowdhury*, A.Mukherjee, B.Singha	<b>Separation Science and Technology</b>  ISSN: 0149-6395 print;1520-5754 online; Taylor & Francis  <a href="https://doi.org/10.1080/01496390903423154">https://doi.org/10.1080/01496390903423154</a>	45	256-262
46	2010	Studies on Hg(II) ion retention properties on cross-linked graft copolymer of acrylic acid and its analytical application	P.Chowdhury, A.Mukherjee, B.Singha	<b>Journal of Polymer Research</b>  ISSN: 1022-9760; Springer  <b>DOI: 10.1007/s10965-009-9377-5</b>	17	853-860
47	2010	Synthesis of cross-linked poly(vinyl alcohol) and investigation of its efficiency in removing lead ion from aqueous solution	B. Singha, A. Mukherjee, P. Chowdhury*	<b>Journal of Indian Chemical Society</b>  ISSN: 0019-4522; Elsevier	87	1329 - 1333
48	2011	Synthesis of polyaniline nanoparticles grafted silica gel and study of its Cr(VI) binding property	P.Chowdhury*, P.Mondal, K.Roy	<b>Journal of Applied Polymer Science</b>  ISSN: 0021-8995(print); 1097-4628(online); John Wiley & Sons  <a href="https://doi.org/10.1002/app.32790">https://doi.org/10.1002/app.32790</a>	119	823-829
49	2011	Synthesis of polypyrrole nanoparticles and its grafting with silica gel for selective binding of Cr(VI)	P. Mondal, K. Roy, S. P. Bayen, P. Chowdhury*	<b>Talanta</b>  ISSN: 0039-9140; Elsevier  <a href="https://doi.org/10.1016/j.talanta.2010.11.037">https://doi.org/10.1016/j.talanta.2010.11.037</a>	83	1482 - 1486

50	2011	Synthesis of cross-linked poly(vinyl alcohol) and studies of its efficiency in up taking zinc ion from aqueous solution	A. Mukherjee, B. Singha, P. Chowdhury*	<b>Indian Journal of Chemistry</b> ISSN: 0376-4710; CSIR-NISCAIR <b>WOS:000292011000007</b>	50A	802-806
51	2011	Synthesis of cross-linked graft copolymer hydrogel from maleic acid, polyvinyl alcohol and methylene bisacrylamide and studies of its efficiency in up taking zinc from aqueous solution	A. Mukherjee, B. Singha, P. Chowdhury*	<b>Journal of Indian Chemical Society</b> ISSN: 0019-4522; Elsevier <a href="https://doi.org/10.5281/zenodo.5790609">https://doi.org/10.5281/zenodo.5790609</a>	88	1517 - 1554
52	2011	Synthesis and application of cross-linked graft copolymer from polyvinyl alcohol and malic acid	A. Mukherjee, B. Singha, P. Chowdhury*	<b>Indian Journal of Chemistry</b> ISSN: 0376-4710; CSIR-NISCAIR Corpus ID: 37213549	50A	1730 - 1734
53	2012	Selective solid phase extraction of Cr(VI) using silica gel immobilized 4-vinyl pyridine /Cupric ion complex	P. Mondal, K. Roy, S. P. Bayen, S.K.Saha , S. Chatterjee, P. Chowdhury*	<b>Separation Science and Technology</b> ISSN: 0149-6395 print;1520-5754 online; Taylor & Francis <a href="https://doi.org/10.1080/01496395.2012.686422">https://doi.org/10.1080/01496395.2012.686422</a>	47	1651 - 1659
54	2012	Chemical and biochemical activities of sonochemically synthesized poly(N-isopropyl acrylamide)/silica nano composite	P.Chowdhury* S.K.Saha, A.Guha, S.K.Saha	<b>Applied Surface Science</b> ISSN: 0169-4332; 2.103; Elsevier <a href="https://doi.org/10.1016/j.apsusc.2012.08.062">https://doi.org/10.1016/j.apsusc.2012.08.062</a>	261	598-604
55	2012	Sonochemical synthesis of polypyrrole salt and study of its Cr(VI) sorption-desorption properties	P. Mondal, K. Roy, S. P. Bayen, P. Chowdhury*	<b>Journal of Macromolecular Science-Part A; Pure and Applied Chemistry</b> ISSN: 1060-1325 print; 1520-5738 online; Taylor & francis <a href="https://doi.org/10.1080/10601325.2012.722852">https://doi.org/10.1080/10601325.2012.722852</a>	49	931-935
56	2013	Simultaneous polymerization and quaternization of 4-vinyl pyridine	P.Mondal, S.K.Saha, P.Chowdhury*	<b>Journal of Applied Polymer Science</b> ISSN: 0021-8995(print); 1097-4628(online); John Wiley & Sons <a href="https://doi.org/10.1002/app.38119">https://doi.org/10.1002/app.38119</a>	127	5045 - 5050
57	2013	Sonochemical quaternization of poly(4-vinyl pyridine) with iodoethane and study of its sorption of Cr(VI)	P. Mondal, K. Roy, S. P. Bayen,, S.K.Saha , P. Chowdhury*	<b>Journal of Indian Chemical Society</b> ISSN: 0019-4522; Elsevier <b>DOI: 10.5281/zenodo.5764096</b>	90	61-67

58	2013	Synthesis of cross-linked graft copolymer from styrene sulfonate monomer and poly(vinyl alcohol) and study of its lead ion binding capacity	A. Mukherjee, B. Singha, P. Chowdhury*	<b><i>Journal of Indian Chemical Society</i></b>  ISSN: 0019-4522; Elsevier	90	93-98
59	2013	Synthesis of quaternized poly(4-Vinyl Pyridine) and the study of its ion exchange property	P.Chowdhury*, S.K.Saha, S.P.Bayen	<b><i>Journal of Macromolecular Science-Part A; Pure and Applied Chemistry</i></b>  ISSN: 1060-1325 print; 1520-5738 online; Taylor & Francis  <a href="https://doi.org/10.1080/10601325.2013.813824">https://doi.org/10.1080/10601325.2013.813824</a>	50	976-982
60	2013	Synthesis of novel aniline immobilized silica gel for the selective extraction of Cr(III)	P.Chowdhury* S.P.Bayen	<b><i>Desalination and Water Treatment</i></b>  ISSN: 1944-3994 print; 1944-3986 online; Taylor & Francis  <a href="https://doi.org/10.1080/19443994.2013.803652">https://doi.org/10.1080/19443994.2013.803652</a>	52	1550 - 1559
61	2013	Aniline/Cupric Ion Complex on Silica Surface: Synthesis, Characterization and Analytical Application	P.Chowdhury*, S.P.Bayen	<b><i>Chemical Science Review Letter</i></b>  ISSN: 2278-6783; Chemical Science Review and Letters	2(5)	332-341
62	2013	Synthesis of poly[2-(methacryloyloxy)-ethyl trimethyl ammonium chloride]/ Silicon dioxide nanopowder composite: Study of its anion Selectivity, Biocompatibility and Antibacterial activity	P.Chowdhury*, S.P.Bayen, P. Mondal, S.K.Saha	<b><i>Journal of Polymeric Materials</i></b>  ISSN: 0973-8622(print); 0976-3449(online); MD Publications Pvt. Ltd.	30 (3)	239-248
63	2014	Ultrasound assisted green synthesis of poly(vinyl alcohol) capped silver nanoparticles for the study of its antifilarial efficacy	S.K.Saha, P.Chowdhury*, P.Saini, S.P.Sinha Babu	<b><i>Applied Surface Science</i></b>  ISSN: 0169-4332; Elsevier  <a href="https://doi.org/10.1016/j.apsusc.2013.10.085">https://doi.org/10.1016/j.apsusc.2013.10.085</a>	288	625-632
64	2014	Biocompatibility of a sonochemically synthesized poly(N-isopropyl acrylamide)/silica nanoparticles	S.K.Saha, S.Das, P.Chowdhury*; S.K.Saha	<b><i>R.Sc. Advance</i></b>  ISSN: 2046-02069; RSC  <a href="https://doi.org/10.1039/C3RA46301J">https://doi.org/10.1039/C3RA46301J</a>	4	1445 7- 1446 7
65	2014	Selective extraction of Cr(III) by aniline immobilized silica gel	S.P.Bayen, P.Chowdhury*	<b><i>Journal of Indian Chemical Society</i></b>  ISSN: 0019-4522; Elsevier	91	1227 - 1235
66	2014	Design and green synthesis of polymer inspired	B.P.Roy, S.Mukherjee,	<b><i>R.Sc. Advance</i></b>	4	3448 7-

		nanoparticles for the evaluation of their antimicrobial and antifilarial efficiency	N.Mukherjee, P.Chowdhury*, S.P.Sinha Babu	ISSN: 2046-02069; RSC <a href="https://doi.org/10.1039/C4RA03732D">https://doi.org/10.1039/C4RA03732D</a>		3449 3
67	2015	Synthesis of chromatographic material by immobilization of thioacetamide onto silica gel	S.P.Bayen, P.Chowdhury*	<b>J. Environ. Chem. Eng.</b>  ISSN: 2213-3437; Elsevier  <a href="https://doi.org/10.1016/j.jece.2014.11.010">https://doi.org/10.1016/j.jece.2014.11.010</a>	3	70-78
68	2016	Carbohydrate polymer inspired silver nanoparticles for filaricidal and mosquitocidal activities: A comprehensive view	S.K.Saha, P.Roy, P.Saini, M.K.Mandal, P.Chowdhury*, S.P.Sinha Babu	<b>Carbohydrate Polymer</b>  ISSN: 0144-8617; Elsevier  <a href="https://doi.org/10.1016/j.carbpol.2015.11.007">https://doi.org/10.1016/j.carbpol.2015.11.007</a>	137	390-401
69	2016	Evidence of reactive oxygen species (ROS) mediated apoptosis in Setaria Cervi induced by green silver nanoparticles from acacia auriculiformis at a very low dose	P.Saini, S.K.Saha, P.Roy, P.Chowdhury, S.P.Sinha Babu	<b>Experimental Parasitology</b>  ISSN: 0014-4894; Elsevier  <a href="https://doi.org/10.1016/j.exppara.2015.11.004">https://doi.org/10.1016/j.exppara.2015.11.004</a>	160	39-48
70	2016	Design and sonochemical synthesis of water-soluble fluorescent silver nanocluster for Hg <sup>2+</sup> sensing	S.P.Bayen, M.K.Mandal, S.Naaz, S.K.Mandal, P.Chowdhury*	<b>J. Environ. Chem. Eng.</b>  ISSN: 2213-3437; Elsevier  <a href="https://doi.org/10.1016/j.jece.2016.01.014">https://doi.org/10.1016/j.jece.2016.01.014</a>	4	1110 - 1116
71	2016	Selective reductive technique (SRT): A robust method to synthesize bioactive Ag/Au doped grapheme oxide	M.K.Mandal, P.P.Banerjee, S.K.Saha, P.Chowdhury*, A.Sengupta, A.Bandyopadhyay, S.Bhattacharya, A.Chatopadhyay	<b>Materials &amp; Design</b>  ISSN: 0264-1275; Elsevier  <a href="https://doi.org/10.1016/j.matdes.2016.04.017">https://doi.org/10.1016/j.matdes.2016.04.017</a>	102	186-195
72	2017	Development of chitosan based gold nanomaterials as an efficient antifilarial agent: A mechanistic approach	S. K. Saha, P. Roy, M. K .Mandal, D. Roy, P. Gayen, P. Chowdhury*, S. P. Sinha Babu	<b>Carbohydrate Polymer</b>  ISSN: 0144-8617 ; Elsevier  <a href="https://doi.org/10.1016/j.carbpol.2016.11.047">https://doi.org/10.1016/j.carbpol.2016.11.047</a>	157	1666 - 1676
73	2017	Sunlight and ultrasound assisted synthesis of photoluminescent silver nanocluster: a unique 'knock out' sensor for	S.Naaz, P.Chowdhury*	<b>Sensor and Actuator B</b>  ISSN: 0925-4005; Elsevier  <a href="http://dx.doi.org/10.1016/j.snb.2016.10.116">http://dx.doi.org/10.1016/j.snb.2016.10.116</a>	241	840-848

		thiophilic metal ions.				
74	2017	Cytoxic and mutagenic effects of <i>Thuja occidentalis</i> mediated silvernanoparticles on human peripheral blood lymphocytes	A.Bandyopadhyay, P. P. Banerjee, P. Shaw, M. K. Mondal, V. Das, P.Chowdhury*, N. Karak, S. Bhattacharya, A. Chattopadhyay	<b>Materials Focus (MAT)</b> ISSN: 2169-429X (Print) EISSN: 2169-4303 (Online); American Scientific Publishers <a href="https://doi.org/10.1166/mat.2017.1405">https://doi.org/10.1166/mat.2017.1405</a>	6	290-296
75	2017	Design and synthesis of reduced graphene oxide based supramolecular scaffold: A benign microbial resistant network for enzyme immobilization and cell growth.	M.K.Mondal, S.Mukherjee, S. K. Saha, P.Chowdhury*, S.i P. Sinha Babu	<b>Materials Science &amp; Engineering C</b> ISSN: 0928-4931; Elsevier <a href="https://doi.org/10.1016/j.msec.2017.02.136">https://doi.org/10.1016/j.msec.2017.02.136</a>	75	1168 - 1177
76	2017	Synthesis and characterization of polyaniline based materials: their biological relevance	S. Mandal, S.K.Saha, P. Chowdhury*	<b>International Journal of Current Microbiology and Applied Sciences</b> ISSN:2319-7692(Print), ISSN:2319-7706 (Online); Dr. N. Karmegam, Dr. M. Prakash, Excellent Publishers  DOI: 10.20546/ijcmas.2017.605.258	6	2309 - 2321
77	2018	Tenfold enhancement of fluorescence quantum yield of water soluble silver nanoclusters by incorporation of 3-aminophenyl boronic acid: utilized for nanomolar level glucose sensing and precise determination of blood glucose level	S.P.Bayen, M.K.Mondal, S.Naaz, S.K.Mondal, S. Poddar, S.K.Saha, P.Chowdhury*	<b>Sensor and Actuator B</b> ISSN: 0925-4005; Elsevier <a href="https://doi.org/10.1016/j.snb.2017.07.143">https://doi.org/10.1016/j.snb.2017.07.143</a>	255	332-340
78	2018	Exploration of antifilarial activity of gold nanoparticle against human and bovine filarial parasites: A nanomedicinal mechanistic approach	Priya Roy, Swadhin K. Saha, Prajna Gayen, Pranesh Chowdhury, Santi P. Sinha Babu	<b>Colloids and Surfaces B: Biointerfaces</b> ISSN: 0927-7765; Elsevier <a href="https://doi.org/10.1016/j.colsurfb.2017.10.057">https://doi.org/10.1016/j.colsurfb.2017.10.057</a>	161	236-243
79	2018	Chitosan biopolymer functionalized gold nanoparticles with controlled cytotoxicity and improved antifilarial activity	P. Chowdhury*, B. Roy, N. Mukherjee, S. Mukherjee, N. Joardar, M. K. Mondal, D. Roy, S. P. Sinha Babu	<b>Advanced Composites and Hybrid Materials</b> ISSN: 2522-0128 (print) 2522-0136 (electronic); Springer <a href="https://doi.org/10.1007/s42114-018-0040-7">https://doi.org/10.1007/s42114-018-0040-7</a>	1(3)	577-590

80	2018	Silicon Quantum Dot-Based Fluorescent probe: Synthesis, Characterization and recognition of thiocyanate in Human Blood	D. Roy, K.Majhi, M.K. Mondal, S. K. Saha, S. Sinha and P. Chowdhury*	<b>ACS OMEGA</b> ISSN: 2470-1343, ACS <a href="https://doi.org/10.1021/acsomega.8b00844">https://doi.org/10.1021/acsomega.8b00844</a>	<b>3</b>	7613 - 7620
81	2018	Free and Bound water in Lactose Mixed with Ultra High Dilution of Sulfur, Sodium Chloride and Ethanol as revealed by Thermo-gravimetry	A.Konar, T. Sarkar, N. C. Sukul, P. Chowdhury, S.P.Bayen and A. Sukul	<b>Environmental and Ecology</b> ISSN: 0970-0420; MKK Publication, Kolkata <a href="http://www.environmentandecology.com">http://www.environmentandecology.com</a>	<b>36 (3)</b>	897-900
82	2018	Designed functionalization of reduced graphene oxide for sorption of Cr(VI) over a wide pH range: a theoretical and experimental perspective	Maloy Kr Mondal, Debiprasad Roy and Pranesh Chowdhury *	<b>New Journal of Chemistry</b> ISSN: 1144-0546 (print); 1369-9261 (web); RSC <a href="https://doi.org/10.1039/C8NJ03794A">https://doi.org/10.1039/C8NJ03794A</a>	42	16960—16971
83	2019	Synthesis of water-soluble conjugated polymer, poly(N-3-sulfopropylaniline) and the study of its glucose sensing property	S. Pal, D. Roy, M. K. Mondal, P. Chowdhury*	<b>Journal of Polymer Research</b> ISSN: 1022-9760, (Online): 1572-8935; Springer <a href="https://doi.org/10.1007/s10965-018-1691-3">https://doi.org/10.1007/s10965-018-1691-3</a>	26	31-40
84	2019	Terephthalaldehyde conjugated chitosan hydrogel: Synthesis and characterization for biomedical application	Sumana Pal, Debiprasad Roy and Pranesh Chowdhury*	Proceedings of the International conference on Emerging Technologies for Sustainable Development (ICETSD '19), Organized by GCELT, Kolkata	ICET SD '19	44-47
85	2019	Facile synthesis of polyacrylate directed silver nanoparticles for pH sensing through naked eye	P.Chowdhury*, A. Hazra, M. K. Mondal, B. Roy, D. Roy, S. P. Bayen, S. Pal	<b>Journal of Macromolecular Science, Part A. Pure and Applied Chemistry</b> ISSN: 1060-1325 Taylor & Francis; <b>DOI: 10.1080/10601325.2019.1607376</b>	56	773-780
86	2019	Designed Synthesis of Dual Emitting Silicon Quantum Dots for Cell Imaging: Direct Labeling of Alpha 2-HS-Glycoprotein	D. Roy, C.Fouzder, A. Mukhutty, S. Pal, M. K. Mondal, R. Kundu, P. Chowdhury*	<b>Bioconjugate Chemistry</b> ISSN:1043-1802; ACS <b>DOI: 10.1021/acs.bioconjchem.9b00279</b>	30	1575 - 1583
87	2019	Cytotoxic effect of graphene oxide-functionalized gold nanoparticles in human	P. P. Banerjee, A. Bandyapadhyay, P. Mondal, M. K. Mondal, P. Chowdhury,	<b>Nucleus</b> ISSN: 0976-7975; Springer	62	243-250

		breast cancer cell lines	A.Chakraborty, M.Sudarshan, S. Battacharya, A. Chattopadhyay	<b>DOI:10.1007/s13237-019-00284-1</b>		
88	2019	Synthesis of smart graphene quantum dots: A beign biomaterial for prominent intracellular imaging and improvement of drug efficacy	M. K. Mondal, S. Mukherjee, N. Joardar, D.Roy, P.Chowdhury*	<b>Applied Surface Science</b>  ISSN : 0169-4332; Elsevier  <a href="https://doi.org/10.1016/j.apsusc.2019.143562">https://doi.org/10.1016/j.apsusc.2019.143562</a>	495	1435 62- 1435 77
89	2020	Cytotoxic effect of green synthesized silver nanoparticles in MCF7 and MDA-MB-231 human breast cancer cells in vitro	A.Bandyopadhyay, B.Roy, P.Shaw, P.Mondal, M. K. Mondal, P. Chowdhury, S. Battacharya, A. Chattopadhyay	<b>Nucleus</b>  ISSN: 0976-7975; Springer  <a href="https://doi.org/10.1007/s13237-019-00305-z">https://doi.org/10.1007/s13237-019-00305-z</a>	63	191- 202
90	2021	Polymer Anchored Gold Nanoparticles: Synthesis, Characterization and Antimicrobial Activities	P. Chowdhury*, B. Roy, S. Mukherjee, N.Mukherjee, N.Joardar, D.Roy, S. Chowdhury, S. P. Sinha Babu	<b>Nanoscience &amp; Nanotechnology-Asia</b>  ISSN: 2210-6812 (Print); 2210-6820 (online); Bentham Science  <b>DOI:10.2174/2210681210666200128155244</b>	11	119- 131
91	2020	Polyaniline as an On-Off-On bright green fluorescent probe: Solvent directed synthesis, characterization and recognition of chromium through the inner filter effect	S. Pal , D. Roy , N. Bar , S.Chowdhury , P.Chowdhury *	<b>Polymer</b>  ISSN: 0032-3861; Elsevier  <a href="https://doi.org/10.1016/j.polymer.2020.122292">https://doi.org/10.1016/j.polymer.2020.122292</a>	191	1222 92  Elsevier
92	2021	Multi-emissive biocompatible silicon quantum dots: Synthesis, characterization, intercellular imaging and improvement of two fold drug efficacy	D. Roy, A.Mukhutry, C.Fouzder, N. Bar S.Chowdhury , R.Kundu, P.Chowdhury *	<b>Dyes and Pigments</b>  ISSN: 0143-7208; Elsevier  <a href="https://doi.org/10.1016/j.dyepig.2020-109004">https://doi.org/10.1016/j.dyepig.2020-109004</a>	186	1090 04
93	2021	Hydrogels of Acryloyl guar gam-g-(acrylic acid-co-3 sulfopropylacrylate) for high-performance adsorption and release of gentamicin sulphate	Ruma Bhtachryya and Pranesh Chowdhury*	<b>Journal of Polymer Research</b>  ISSN: 1022-9760; (Online): 1572-8935; Springer  <a href="https://doi.org/10.1007/s10965-021-02633-8">https://doi.org/10.1007/s10965-021-02633-8</a>	28	286- 304

94	2021	Photochromism of dye containing Schiff base-metal complex: A revisit through spectro-kinetics, thermodynamic and theoretical analyses for the design of a molecular logic gate	N. Bar, P.Chowdhury*, D. Roy, S.Adhikari, S.Mondal, G. K.Das, S. K.Chandra	<b><i>Journal of Photochemistry &amp; Photobiology, A: Chemistry</i></b>  ISSN: 18732666, 10106030; Elsevier  <a href="https://doi.org/10.1016/j.jphotochem.2021.113505">https://doi.org/10.1016/j.jphotochem.2021.113505</a>	420	1135 05- 1135 16
95	2022	Polymer based ON-OFF-ON fluorescent logic gate: Synthesis, characterization and understanding	D. Biswas, N. Bar, S. Pal, S.K.Mazumder, A. Ray, S.Chowdhury, G.K. Das, P.Chowdhury*	<b><i>Journal of Molecular Structure</i></b>  ISSN: 0022-2860; Elsevier  <a href="https://doi.org/10.1016/j.molstruc.2021.132166">https://doi.org/10.1016/j.molstruc.2021.132166</a>	125 2	1321 66
96	2022	Synthesis of novel water-soluble chitosan-based “off-on” fluorescent probes for successive recognitions of Fe <sup>3+</sup> and F <sup>-</sup> ions	S. K.Mazumder, D. Roy, S.Pal, N. Bar, A.Ray, D. Biswas, S.Chowdhury, P.Chowdhury*	<b><i>Iranian Polymer Journal</i></b>  <b>Electronic ISSN:</b> 1735-5265  <b>Print ISSN:</b> 1026-1265; Springer  <a href="https://doi.org/10.1007/s13726-021-01013-9">https://doi.org/10.1007/s13726-021-01013-9</a>	31	425- 439
97	2022	Synthesis of an advanced metal-guided photochromic system for molecular keypad lock: detailed experimental findings and theoretical understanding	N. Bar, P.Chowdhury*, D. Biswas, A.Ray, G. K. Das	<b><i>New Journal of Chemistry</i></b>  ISSN: 1144-0546 (print); 1369-9261 (web); RSC  <b>DOI:</b> <a href="https://doi.org/10.1039/d1nj06158e">10.1039/d1nj06158e</a>	46	8284 - 8302
98	2022	Multi-emissive silicon quantum dots: synthesis, characteristics and their biological & analytical relevance	P. Chowdhury*, D. Roy	<b><i>Bulletin of Materials Science</i></b>  ISSN: 0250-4707 (print); 0973-7669 (web); Springer Science / Indian Academy of Sciences  <a href="https://doi.org/10.1007/s12034-022-02706-4">https://doi.org/10.1007/s12034-022-02706-4</a>	45	143
99	2022	A brief review on advances in rhodamine B based chromic materials and their prospects	Nandagopal Bar, Pranesh Chowdhury*	<b><i>ACS Applied Electronic Materials</i></b>  ISSN: 2637-6113, ACS  <a href="https://doi.org/10.1021/acsaelm.2c00107">https://doi.org/10.1021/acsaelm.2c00107</a>	4 (8)	3749 – 3771
10 0	2022	Metal-guided photochromism: Progress and Prospects	Pranesh Chowdhury*, Nandagopal Bar	<b><i>Advances in Materials Science Research</i></b> <b><i>Nova Science Publishers</i></b>	53	
10 1	2009	Frequency-Dependent Resistivity and Magnetoresistivity of	G. Chakraborty, A. Sarkar, P. Ghosh, A.K.	<b><i>Polymer Engineering and Science</i></b>	49	910- 915

		Iodine Doped Conducting Polyaniline	Meikap, P.Chowdhury*	ISSN: 15482634, 00323888; Willey <a href="https://doi.org/10.1002/pen.21332">https://doi.org/10.1002/pen.21332</a>		
10 2	2023	Improved version of oligo(2,4diaminotolune): synthesis, characterization, understanding, and application	Sumana Pal, Pranesh Chowdhury*, Nandagopal Bar, Arindam ray, Debrupa Biswas & Gourab kanti Das	<b><i>Journal Of Macromolecular Science, Part A: Pure And Applied Chemistry</i></b>  ISSN: (Print) (Online) Journal homepage: <a href="https://www.tandfonline.com/loi/lmsa20">https://www.tandfonline.com/loi/lmsa20</a>  <a href="https://doi.org/10.1080/10601325.2023.2230271">https://doi.org/10.1080/10601325.2023.2230271</a>		
10 3	2023	Revaluation of copper(II)-Schiff base complex for sensing of D-penicillamine and development of a molecular logic gate: A combined approach	Arindam Ray , Nandagopal Bar , Pranesh Chowdhury*, Debrupa Biswas , Keya Ghosh , Ashok Mandi , Gourab Kanti Das	<b><i>Polyhedron</i></b>  journal homepage: <a href="http://www.elsevier.com/locate/poly">www.elsevier.com/locate/poly</a>  <a href="https://doi.org/10.1016/j.poly.2023.116563">https://doi.org/10.1016/j.poly.2023.116563</a>	243	1165 63
10 4	2023	Revisit of dye-anchored poly(vinyl alcohol) through strong experimental evidence and theoretical understanding for the development of a polymeric IMPLICATION logic gate	Debrupa Biswas , Pranesh Chowdhury*, Nandagopal Bar , Arindam Ray , Gourab Kanti Das	<b><i>Dyes and Pigments</i></b>  journal homepage: <a href="http://www.elsevier.com/locate/dyepig">www.elsevier.com/locate/dyepig</a>  <a href="https://doi.org/10.1016/j.dyepig.2023.111559">https://doi.org/10.1016/j.dyepig.2023.111559</a>	219	1115 59

## List of Book chapters / Books written

Sl. Number	Title	Name of the Book	Editor/Writer	Publisher
1	Role of polymers in the removal and recovery of Cr(VI)	Chromium (VI) Handbook	Jacques Guertin James A. Jacobs Cynthia p. Avakian	CRC Press
2	Metal-Guided Photochromism: Progress and Prospects	Advances in Materials Science Research Volume 53 ISBN: 979-8-88697-080-7 Chapter 8; pp.	Pranesh Chowdhury & Nandagopal Bar	Nova Science Publishers Editor: Maryann C. Wythers August 2022 Newyork, 11788, USA

## Awards Received

- 1 **National Scholarship in the Madyamik Parikha: 1980**
- 2 **National Scholarship in the H.S. Examination: 1982**
- 3 **University Toper in the graduate level in Chemistry: 1986**
- 4 **University Toper in the post graduate level (Chemistry): 1988**
- 5 **Leadership for advancing higher education in India: 2019**

# Photographs of Current Research Group



**Sumana Pal**  
Teacher Fellow



**Nandagopal Bar**  
DST Inspire Fellow



**Debrupa Biswas**  
CSIR SRF Fellow



**Arindam Ray**  
UGC SRF Fellow



**Swapna Majumdar**  
Teacher Fellow

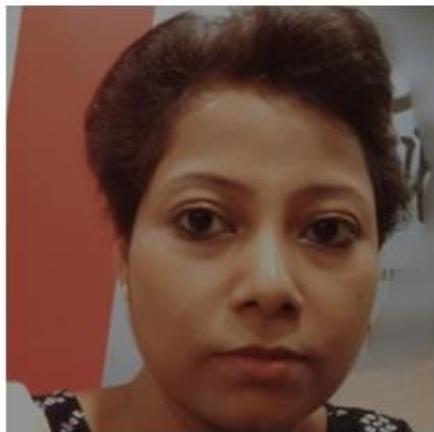


**Ashok Mandi**  
Assistant Professor Fellow



**Keya Ghosh, JRF Fellow**

## **Post Doctoral Fellow**



**Dr. Ruma Bhattacharya**  
**DSKPDF scheme of UGC**



**Dr. Sangita Adhikari**  
**NPDF Post Doctoral Fellow**

## Alumni



**Dr. Kalyan Adhikari**  
Professor



**Dr. Md Ansar Ali**  
Associate professor



**Dr. Palash Mondal**  
Associate Professor



**Dr. Shyama P. Bayen**  
Assistant Teacher



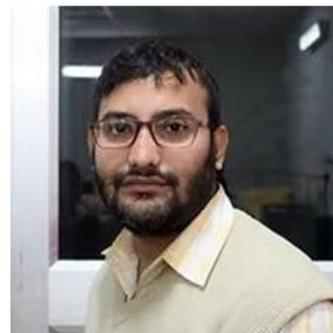
**Dr. Swadhin Kr Saha**  
Assistant Professor



**Bisnu Pada Roy**  
Assistant Professor



**Dr. Maloy Kr Mondal**  
Assistant Teacher



**Dr. Debiprasad Roy**  
Research Associate