# Tithi Maity

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<u>Present Position</u>: *Assistant Professor*, Department of Chemistry, Prabhat Kumar College, Contai

<u>Research Field</u>: DNA/RNA/ Protein binding/ anticancer study of metal complex, Chemosensing/ polymer curing and toughening

# **Summary:**

- 14 years research experience
- 12 years teaching experience in UG chemistry and three years experience in PG chemistry
- Coauthor of 34 publications in peer reviewed journals
- 11 edited books in different subject matter

#### **Educational qualifications**

2/1/2002-7/12/2007 Doctor of Philosophy (Chemistry), Vidyasagar University

2000-2002 Master of science with specialization in Inorganic Chemistry (1<sup>st</sup> class)

Vidyasagar University

1997-2000 Bachelor of Science (Honours in Chemistry, 1<sup>st</sup> class), The

Vidyasagar University

**Awards** 

2020 Indian Chemical Society Research Excellency Award

2019 Out standing paper award by Science and Technology Biotechnology,

Government of West Bengal.

### Awards by group members

**2020** A poster on "Development of Mn(II) 1D Polymer Having Effective DNA binding Efficacy and Anticancer Property" by Manik Das and Tithi Maity was selected for Best Poster Award in international conference GSPFM, 2020 by Rubber Technology Centre, IIT Kharagpur on 7-8<sup>th</sup> February.

2020 Research excellence award by ManiK Das (Manik Das and Tithi Maity) in RTCS 2020, Organized by Indian Chemical Society in collaboration with Royal Society of Chemistry and American Chemical Society.

2020 A poster on "Bidented Schiff Base Coordinated Cu(II) and Zn(II) Complexes: Synthesis, Crystal Structurs, DNA/Protein Binding Molecular Modeling Study and Cellular Nuclear Morphology" by Manik Das (Tithi Maity) was selected as S. S. Bhatnagar Young Scientist Award by Indian Chemical Society in collaboration with American Chemical Society on 2<sup>nd</sup> August, 2020

# **Student mentorship**

Four students are working their PhD works under my supervision

Projects ongoing / completed:			
Title	Funding Agency	Year	Amount (Rs.)
<ol> <li>Curing and Toughening Studies of Epoxy Resin by Amine Terminated Synthesized Oligomers</li> <li>Antimicrobial, DNA binding and anticancer study of new Schiff and Mannich base metal</li> </ol>	UGC	2014-16	500000
complex	West Bengal Science and Technology Biotechnology	2019	4,65,000

## Complete publication list

#### **Peer Reviewed Journals**

- Susmita Das, Manik Das, Soumik Laha, Karunamoy Rajak, Indranil Choudhuri, Nandan Bhattacharyya, Bidhan Chandra Samanta, Tithi Maity, Journal of Molecular structure, 2022, 1263. 133214
- Pranabendu Das, Swati Singh Rajput, Manik Das, Soumik Laha, Indranil Choudhuri, Nandan Bhattacharyya, Arindam Das, Bidhan Chandra Samanta, Md Mehboob Alam, Tithi Maity, Journal of Photochemistry Photobiology A: , 2022, 427, 113817
- 3. Manik Das, Paola Brandao, Soumya Sundar Mati, Saikat Roy, Anakuthil Anoop, Anjima James, Susmita De, Uttam Kumar Das, Soumik Laha, Jisu Mondal, Bidhan Chandra Samanta and **Tithi Maity**, *Journal of Biomolecular Structure and Dynamics*, Published online: 29 Nov 2021, http://dx.doi.org/10.1080/07391102.2021.2001377
- Kalyanmoy Jana, Ushasi Pramanik, Kapil S Ingle, Ribhu Maity, Saptarshi Mukherjee, Susanta K Nayak, Subhas Chandra Debnath, **Tithi Maity**, Swapan Maity, Bidhan Chandra Samanta, *Journal of Photochemistry Photobiology A*: Chemistry, 2022, 402, 113565
- 5. Dibyendu Satapathi,Manik Das, Karunamoy Rajak, Soumik Laha,Md. Maidul Islam,Indranil Choudhuri,Nandan Bhattacharyya,Sinjan Das,Bidhan Chandra Samanta,Tithi Maity, Applied Organometalic Chemistry, Published in 7<sup>th</sup> October, 2021 https://doi.org/10.1002/aoc.6473
- Ribhu Maity, Nayim Sepay, Ushasi Pramanik, Kalyanmoy Jana, Saptarshi Mukherjee, Swapan Maity, Dasarath Mal, **Tithi Maity**, Bidhan Chandra Samanta, *The Journal of Physical Chemistry B*, 2021, 125, 41, 11364–11373
- 7. Manik Das, Biplab Koley, Uttam Kumar Das, Arijit Bag, Soumik Laha, Bidhan Chandra Samanta, Indranil Choudhuri, Nandan Bhattacharyya, **Tithi Maity**, *Journal of Photochemistry Photobiology: A Chemistry*, 2021, 415, 113302
- 8. Manik Das, Somali Mukherjee, Paula Brandao, Saikat Kumar Seth, Santanab Giri, Soumya Sundar Mati, Bidhan Chandra Samanta, Soumik Laha, **Tithi Maity**, *ACS OMEGA*, 2021, 6, 3659-3674

- **9.** Kalyanmoy Jana, Ribhu Maity, Horst Puschmann, Anindita Mitra, Rita Ghosh, Subhas Chandra Debnath, Aparna Shukla, Arun Kumar Mahanta, **Tithi Maity**, Bidhan Chandra Samanta, *Inorganica Chimica Acta*, 2021, 515, 120067.
- Manik Das, Somali Mukherjee, Biplab Koley, Indranil Choudhuri, Nandan
   Bhattacharyya, Pritam Roy, Bidhan Chandra Samanta, Manas Barai, Tithi Maity, New Journal of Chemistry, 2020, 40, 18347-18361
- 11. 24. K. Jana, S. Das, H, Puschman, S. C. Debnath, A. Shukla, A. K. Mohanta, H. Hosen, B. C. Samanta, **T. Maity**, *inorganic Chimica Acta*, 487, 2019, 128-137.
- 12. **Tithi Maity**, Haridas Mandal, Antonio Bauza, Bidhan Chandra Samanta, Antonio Frontera, Saikat Kumar Seth *New Journal of Chemistry*, 2018, 42, 10202-10213.
- 13. Kalyanmoy Jana, **Tithi Maity**, Somnath Das, Maidul Hossain, Subhas Chandra Debnath, Bidhan Chandra Samanta, Saikat Kumar Seth, *Journal of coordination Chemistry*, DOI: 10.1080/00958972.2018.1464654
- Kalyanmoy Jana, Tithi Maity, Tufan Singha Mahapatra, Pradeep Kumar Das Mohapatra, Subhas Chandra Debnath, Somnath Das, Maidul Hossain, Bidhan Chandra Samanta, Transition Metal Chemistry, 42, 2017, 69-78
- 15. Kalyanmoy Jana, **Tithi Maity**, Subhas Chandra Debnath, Bidhan Chandra Samanta and Saikat Kumar Seth, *Journal of Molecular Structure*, 1130, 2017, 844-854.
- 16. T. Maity, B. C. Samanta, Pigment and Resin Technolog, 45,2016, 184-190
- 17. T. Maity, B. C. Samanta, Pigment and Resin Technolog, 44, 2015, 19-25
- 18. B. C. Samanta, T. Maity, Pigment and Resin Technolog, 41, 2012, 344-350
- 19. T. Maity, B. C. Samanta, A. K. Banthia, S. Dalai, *Pigment and Resin Technolog*, 40, 2011, 285-291
- T. Maity, B. C. Samanta, Journal of Adhesion Science and Technology, 24, 2010, 1031-1043
- 21. Bidhan Samanta, **Tithi Maity**, *Pigment and Resin Technolog*, 38, 2009, 380-386
- 22. Tithi Maity, Bidhan Samanta, Pigment and Resin Technolog 38, 2009, 285-289
- 23. **Tithi Maity**, Bidhan Samanta, A. K. Banthia, *Pigment and Resin Technolog*, 38, 2009, 143-152
- 24. T. Maity, B. C. Samanta, A. K. Journal of Applied Polymer Scienc, 110, 2008, 3717-3726
- 25. B. C. Samanta, **T. Maity**, S. Dalai, A. K. Banthia, *Pigment and Resin Technolog*, 37, 8, 3-8
- 26. B. C. Samanta, T. Maity, S. Dalai, A. K. Banthia, *Journal of Materials Science and Technology*, 24, 2008, 272-278
- 27. **T. Maity**, B. C. Samanta, S. Dalai, A. K. Banthia, *Polymer Engineering and Science*, 47, 2007, 1695-1702
- 28. **T. Maity**, B. C. Samanta, S. Dalai, A. K. Banthia, *Materials Science and Engineering* A, 464, 2007, 38-46

- 29. **T. Maity**, B. C. Samanta, S. Dalai, A. K. Banthia, *Pigment and Resin Technolog*, 36, 2007, 30-38
- 30. B. C. Samanta, **T. Maity**, S. Dalai and A. K. Banthia, *Pigment and Resin Technolog*, 35, 2006, 216-223
- 31. B. C. Samanta, **T. Maity**, S. Dalai, A. K. Banthia, *Journal of Adhesion Science and Technology*, 20, 2006, 491-502
- 32. **T. Maity**, B. C. Samanta, S. Dalai and A. K. Banthia, *Journal of Applied Polymer Science*, 101, 2006, 3168-3174
- 33. **T. Maity**, B. C. Samanta, S. Dalai and A. K. Banthia, *Pigment and Resin Technology*, 35, 2006, 12-21
- 34. B. C. Samanta, T. Maity, S. Kar and A. K. Banthia, *Pigment and Resin Technology*, 34, 2005, 4-11

#### **Proceeding Publications**

- 1. **Tithi Maity**, Sritama Kar and Ajit. K. Banthia, Evaluation of Aniline- Formaldehyde Condensates as Modifiers for Epoxy Resin, *The 2<sup>nd</sup> International Conference on Structure Processing and Properties of Materials*, SPPM2004, 2004, 672-679.
- 2. B. C. Samanta, **T. Maity**, S. Dalai, A. K. Banthia, Mechanical and thermal properties of Cured Epoxy Toughened with Amine Terminated Poly (ethylene Glycol) Benzoate (ATPEGB), *International Symposium on Advance Materials and Processing, ISAMAP2k4*, 2004, 513-520.
- 3. B. C. Samanta, **T. Maity**, S. Dalai, A. K. Banthia, Thermal study of Cure Epoxy by New Aromatic Amine functional Curing Agents, *International Symposium on Advance Materials and Processing*, *ISAMAP2k4*, 2004, 521-527.
- 4. **T. Maity**, B. C. Samanta, S. Dalai, A.K. Banthia, Mechanical and Thermal Studies of Liquid ATPEGB Modified Epoxy-Red Mud Waste Composites, 2<sup>nd</sup> International Conference on Recent Advances in Composite Materials, ICRACM-2007, 2007, 990-999.
- 5. **T. Maity**, B. C. Samanta, S. Dalai, A .K. Banthia, Effect of Amine Functional Aniline Formaldehyde Condensate (AFAFC) on Mechanical Properties of Glass Fiber Reinforced Epoxy, 2<sup>nd</sup> International Conference on Recent Advances in Composite Materials, 2007, 226-238.

#### **Edited Book:**

Sl No	Title of the Book	Year of	Name of the	ISBN No.
	published	Publication	Publisher	
i.	"Safe and Environmen	2012	Readers Service,	ISBN 978-81-87891-53-
	friendly Food Additives and Dyes"		Kolkata - 700075	6

ii	"Toughening of Epoxy Networks by Some New Synthesized Toughening Agents"	2014	Scholar's Press, Germany	ISBN 978-3-639-71147- 9
iii	"Environment Friendly Biodegradable Polymers: Present and Future"	2016	Mallick Book Centre, Kolkata- 73	ISBN : 978-81-926694- 0-3
iv	Fluorosis and Arsenicosis: A Global Problem	2016	Nectar Kolkata-06	978-93-84241-08-7
V	Bharat Preme Pagalini Nivedita	2018	Annapurna Publishers	978-93-84387-54-9
Vi	Progress of Chemistry for the Sustainable Development of Mankind	2019	Techno World	978-81-926694-5-8
Vii	Chemistry and Biology Sustainable progress of Human	2020	Scientific World	978-93-84387-76-1
Viii	Contributions of Indian women to Science	2020	Scientific World	978-93-84387-75-4
X	Footprints of Indian Women	2021	Annapurna Publishers	978-93-84387-81-5

#### **Book Chapter**

- i) "Adverse Health Effects of Chemicals leaching from Plastic Food Containers"-B. C. Samanta and T. Maity in "Food Safety" published by Readers Service, Kolkata 700075 (ISBN 978-93-82623-15-1) (2013).
- ii) "Use of Water as one of the Greener Alternatives in Organocatalysis"- B. C. Samanta and T. Maity in "Organocatalysis: New Methodologies for Sustainable Chemistry" published by Readers Service, Kolkata 700075 (ISBN 978-93-82623-44-1) (2015).
- "Synthetic Polymers vs. Biodegradable Polymers" T. Maity in "Environment Friendly Biodegradable Polymers: Present and Future" published by Mallick Book Centre, Kolkata-73, (ISBN: 978-81-926694-0-3) (2016).
- iv) "Curing and Toughening study of Epoxy Resin with Amine Functional Polymers"- K. Jana, T. Maity, B. C. Samanta\* in "Recent Trends in Research in Chemical Sciences"

published by Ghatal R. S. Mahavidyalaya, Paschim Medinipur -721212 (ISBN: 978-93-5267-187-8) (2016).

# List of paper presentation in last few years

1	Safer Food - Better Health	National	Aug. 7 <sup>th</sup> & 8 <sup>th</sup> ,2013	P. K. College, Contai, Purba Medinipur, West Bengal	Adverse Health Effects of Chemicals leaching from Plastic Food Containers
2.	Chemistry and Its Interface with other Scientific Disciplines	National	December 12, 2014	Sitananada College, Nandigram, Purba Medinipur, West Bengal	Poster entitled "Interface of Chemistry with Biology and Physics through Formation and Structural determination of Biological Crystals"
3.	Food Processing, Preservations and Packaging	National	March 17- 18, 2015	Department of Chemistry & Chemical Technology, Vidyasagar University, Paschim Medinipur, West Bengal, India	Poster entitled "Plastics – No more Safe in Food Processing and Packaging"
4.	Environment Friendly Biodegradable Polymers: Present and Future	National	September 9-10 2015	Department of Chemistry, Mugberia Gangadhar Mahavidyalaya	Paper entitled "Synthetic Polymers vs. Biodegradable Polymers"
5.	International Conference on Recent Trends in Energy Technologies (ICRTET- 2016)	International	January 21-23, 2016	HRC- IIChE, Haldia Institute of Technology, Haldia, India	Paper entitled "Challenges in advanced fossil fuel technologies"
6.	Recent Trends in Research in	National	August 30,	Department of	Poster entitled "Curing and

	Chemical Sciences		2016	Chemistry, Ghatal R. S. Mahavidyalaya, Ghatal, Paschim Medinipur	Toughening study of Epoxy Resin with Amine Functional Polymers"
7.	The Basics of Fluorescence with its Present-Day application	National	October 4 <sup>th</sup> & 5 <sup>th</sup> 2016	Department of Chemistry & Physics, Bajkul Milani Mahavidyalaya, Bajkul, Purba Medinipur	Paper entitled "Use of Fluorescence Spectroscopy in the Interaction Study of DNA with Transition Metal Complexes"
8.	National Seminar on Science and Technology for National Development in India	National	December 12-13, 2016	ISCA, Bhubaneswar Chapter, Campus-6, KIIT University Bhubaneswar	Filler effect on thermomechanical properties of modified epoxy composite
9.	104 <sup>th</sup> Indian Science Congress Science and Technology for National Development	National	3 <sup>rd</sup> -7 <sup>th</sup> January, 2017	Sri Venkateswara University, NH 205, Tirupati - 517502, Andhra Pradesh, India	Effectiveness of Amine Functional Polymers as Curing and Toughening Agents for Epoxy Resin
10	Recent Advancement on Multifunctional Material (RA2M-2016)	National	February 3 <sup>rd</sup> & 4 <sup>th</sup> 2017	Haldia Institute of Technology, Haldia, India	Synthesis and Characterization of Amine Functional Polymeric Materials as Curing and Toughening Agents for Epoxy Resin
12.	3 <sup>rd</sup> egional Science and Technology Congress, 2018	National	20-21th December, 2018	Sidhu Kanu Birsa University and Department of Science and Technology	DNA Binding, Antibacterial study of Co(II) Schiff Base Metal Complex

				West Bengal	
13.	International Symposium on Recent Advances in Chemistry and Material Science, 2019	International	2-3 <sup>rd</sup> August, 2019	Indian Chemical Society	Anticancer and DNA binding ability of two new Schiff base metal complex.
14.	4 <sup>th</sup> Regional Science and Technology Congress, 2019	National	21-22 <sup>nd</sup> December, 2019	MAKAUT and Department of Science and Technology West Bengal	Evaluation of Novel Cu(II) and Ni(II) Complexes of piperidine Derivative: Promossing Anticancer, DNA binding and Molecular Modelling Study.
15.	Innovation, Expansion, Impact and Challenges in Chemical and Biological Science	International	8-9 <sup>th</sup> January, 2020	Dept. of Chemistry, Surendranath College.	A promossing Anricancer property of Schiff base metal complexes.
16.	27 <sup>th</sup> West Bengal State Science and Technology Congress, 2020	International	28-29 <sup>th</sup> February, 2020	of Science and Technology West Bengal	Evaluation of Novel Cu(II) and Ni(II) Complexes of piperidine Derivative: Promossing Anticancer, DNA binding and Molecular Modelling Study