


## PERSONAL PROFILE

<b>Name</b>	: <b>DR. SAMIR KUMAR MANDAL</b>	
<b>Designation</b>	: <b>Assistant Professor</b> Department of Chemistry Saldiha College, Saldiha Bankura-722173, WB	
<b>Date of Birth</b>	: 28/01/1982	
<b>Educational Qualification</b>	: <b>B.Sc.</b> (Chemistry in 2001) <b>M.Sc</b> (Organic Chemistry in 2003) <b>Ph.D</b> (Chemistry in 2009) (Synthesis of natural products and related compounds)	
<b>Additional Qualification</b>	: <b>NET</b> (JRF-CSIR in 2003) <b>Post-Doc</b> (City University of New York, USA)	
<b>Permanent Address</b>	: Vill. - Belia, P.O. – Jambedia, Dist. - Bankura, Pin No.–722 139, W.B., INDIA	
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<b>Date of Joining</b>	: 10/04/2015	
<b>Area of Teaching</b>	: Organic Chemistry	
<b>Teaching Experience</b>	: Total teaching experience 9 years	
<b>Research interest</b>	: Synthetic development of Natural Products and their Fluoro-analogues, Iron-catalysed organic reactions.	

## PROFESSIONAL EXPERIENCES

<b>Apr 2015 – Present</b>	<b>Asst. Prof. in Chemistry</b> , Saldiha College, Saldiha, India
<b>Sep 2014 – Sep 2017</b>	<b>Young Scientist (DST-SERB)</b> , Kalyani University, Kalyani, India
<b>Aug 2013 – Sep 2014</b>	<b>Lecturer in Chemistry</b> , P. D. Women's College, Jalpaiguri, India
<b>Sep 2011- Aug 2013</b>	<b>Substitute Teacher</b> , P. D. Women's College, Jalpaiguri, India
<b>Feb 2011-Sep 2011</b>	<b>Research Scientist</b> , TCG Life Science Ltd., Kolkata, India
<b>Jan 2009-Dec 2010</b>	<b>Postdoctoral Research Associate</b> , CUNY, NY, USA
<b>Aug 2003- Jun 2004</b>	<b>Trainee Production</b> , Dabur Pharma Ltd., Kalyani, India

## List of Research Papers in National/International Journal:

### LIST OF PUBLICATIONS: AS PI

- 1 'Synthetic Studies Towards the Synthesis of 6-Substituted 3-Fluoro-5,6-dihydropyran-2-ones' **S. K. Mandal**, A. Sarkar, P. Chakraborty and A. P. Chattopadhyay, *Synlett* **2018**, 29, 75.
- 2 'Iron-catalyzed synthesis of heterocycles' **S. K. Mandal** and A. P. Chattopadhyay, *IOSR-JAC* **2016**, 9, 40.
- 3 'A new route of synthesis and characterization of biocompatible gold nanoparticles from synthetic Japanese natural medicine' **S. K. Mandal**, *IOSR-JAC* **2013**, 3, 68.

### LIST OF PUBLICATIONS: PhD and Pos-Doc

#### MANUSCRIPT READY FOR PUBLICATION

- 1 'Synthesis and stereochemical assignments of 2'-deoxyadenosine adducts from 6-fluorobenzo[a]pyrene 7,8-diol 9,10-epoxide metabolites' **S. K. Mandal** and B. Zajc (Submitted)
- 2 'Enantiodivergent synthesis of highly functionalized  $\alpha$ -methylene- $\gamma$ -butyrolactones via titanocene(III) chloride mediated radical cyclization reaction' M. Paira, **S. K. Mandal** and S. C. Roy (work completed) \*\*
- 3 'Palladium(0) catalyzed Heck reactions of fluoro-olefins with aryl halides' S. Banerjee, **S. K. Mandal** and B. Zajc (work completed) \*\*

\*\* The title may be subject to change.

#### PUBLISHED

- 1 'Titanocene(III) chloride mediated radical induced addition-elimination route to the synthesis of racemic and optically active trisubstituted tetrahydrofurans: Formal synthesis of magnofargesin and 7'-epimagnofargesin' P. Chakraborty, **S. K. Mandal** and S. C. Roy, *J. Chem. Sci.* **2016**, 128, 1067.
- 2 'Titanocene(III) chloride mediated radical-induced opening of monosubstituted epoxy acetates for the synthesis of primary allylic alcohols' P. Chakraborty, **S. K. Mandal** and S. C. Roy, *Indian J. Chem.* **2015**, 54B, 893.
- 3 'Synthesis of regiospecifically fluorinated conjugated dienamides' M. Chowdhury, **S. K. Mandal**, S. Banerjee, and B. Zajc, *molecules*, **2014**, 19, 4418.
- 4 'Julia-Kocienski approach to trifluoromethyl-substituted alkenes' D. O. Ayeni, **S. K. Mandal** and B. Zajc, *Tetrahedron Lett.* **2013**, 54, 6008.
- 5 'Expedient synthesis of  $\alpha$ -substituted fluoroethenes' **S. K. Mandal**, A. K. Ghosh, R. Kumar and B. Zajc, *Org. Biomol. Chem.* **2012**, 10, 3164 [[featured on the front cover](#)]. [[Highlighted in ChemInform 2012, 43, doi: 10.1002/chin.201237042](#)]
- 6 'Titanocene(III) chloride mediated radical induced asymmetric synthesis of  $\alpha$ -methylene bis- $\gamma$ -butyrolactone' S. Saha, **S. K. Mandal** and S. C. Roy, *Tetrahedron Lett.* **2011**, 52, 3128.
- 7 'Titanium(III) chloride mediated synthesis of furan derivatives: Synthesis of ( $\pm$ )-evodone' **S. K. Mandal**, M. Paira and S. C. Roy, *J. Chem. Sci.* **2010**, 122, 423.
- 8 'Titanocene(III) chloride mediated reductive cleavage of arylcyclopropyl ketones' M. Paira, **S. K. Mandal** and S. C. Roy, *Indian J. Chem.* **2010**, 49B, 573.

- 9 'Titanocene(III) chloride mediated radical-induced synthesis of 3,4-dihydroisocoumarins: synthesis of (±)-hydrangenol, (±)-phyllodulcin, (±)-macrophyllol and (±)-thunberginol' **S. K. Mandal** and S. C. Roy, *Tetrahedron* **2008**, *64*, 11050.
- 10 'Fe(III) chloride catalyzed conversion of epoxides to acetonides' S. Saha, **S. K. Mandal** and S. C. Roy, *Tetrahedron Lett.* **2008**, *49*, 5928.
- 11 'Titanocene(III) chloride mediated radical-induced addition to Baylis-Hillman adducts: Synthesis of (E)- and (Z)-trisubstituted alkenes and  $\alpha$ -Methylene/Arylidene  $\delta$ -Lactones' **S. K. Mandal**, M. Paira and S. C. Roy, *J. Org. Chem.* **2008**, *73*, 3823. [[Highlighted in ChemInform 2008, 39, doi: 10.1002/chin.200838049](#)]
- 12 'Cerium(IV) ammonium nitrate catalyzed synthesis of  $\alpha$ -dehydro- $\beta$ -amino esters' M. Paira, **S. K. Mandal** and S. C. Roy, *Tetrahedron Lett.* **2008**, *49*, 2432.
- 13 'Titanocene(III) mediated radical cyclizations of epoxides for the synthesis of medium-sized cyclic ethers' **S. K. Mandal** and S. C. Roy, *Tetrahedron* **2007**, *63*, 11341.
- 14 'Radical-mediated synthesis of 3,4-dihydroisocoumarins: total synthesis of hydrangenol' **S. K. Mandal** and S. C. Roy, *Tetrahedron Lett.* **2007**, *48*, 4131.
- 15 'Titanocene(III) chloride mediated radical-induced one-pot synthesis of  $\alpha$ -methylene- $\gamma$ -butyrolactones' M. Paira, B. Banerjee, S. Jana, **S. K. Mandal** and S. C. Roy, *Tetrahedron Lett.* **2007**, *48*, 3205.
- 16 'Efficient synthesis of bis(indolyl) methanes in aqueous medium catalyzed by molybdenyl acetylacetonate' B. Banerjee, **S. K. Mandal** and S. C. Roy, *Indian J. Chem.* **2007**, *46B*, 669.
- 17 'Titanocene(III) mediated 8-endo radical cyclizations for the synthesis of eight-membered cyclic ethers' **S. K. Mandal** and S. C. Roy, *Tetrahedron Lett.* **2006**, *47*, 1599.
- 18 'Cerium(IV) ammonium nitrate-catalyzed synthesis of  $\beta$ -keto enol ethers from cyclic  $\beta$ -diketones and their deprotection' B. Banerjee, **S. K. Mandal** and S. C. Roy, *Chemistry Lett.* **2006**, *35*, 16.
- 19 'Free radical-promoted conjugate addition of activated bromo compounds using titanocene(III) chloride as the radical initiator' **S. K. Mandal**, S. Jana and S. C. Roy, *Tetrahedron Lett.* **2005**, *46*, 6115.

#### List of Conference Books/Book Chapters Publications:

1. Chemistry on Its Way: Impacts on the Environment, **S. K. Mandal**(Ed.), Published by Cinnamara College Sakha Sahitya Sabha & Publication, Assam, India (ISBN 978-93-84191-17-7)
2. 'Design of modern agrochemicals: Plant and soil protection' **Samir Kumar Mandal**, *Biotechnology for People* **2013**, 140-150 (*Proceeding* ISBN: 978-93-80663-86-9)
3. 'Modified DNA: Metabolism of Polycyclic Aromatic Hydrocarbon and Role of Conformation in Biology' **Samir Kumar Mandal**, *Ind. J. Soc. Nat. Sc.* **2013**, *2*, 1-11 (*featured on the front cover*) [*special issue on Proceeding*].

#### Seminars/Conferences Abstracts/Poster/Oral Presentation:

1. **Samir Kumar Mandal** 'Synthesis of Stereoselective Fluorinated Dienamide Derivative Using Fluoro-Julia Olefination Reaction' (One Day International Webinar "Role of Chemistry in Recent Technology" Indas Mahavidyalaya, Indas, Bankura, August 23, 2020)

2. **Samir Kumar Mandal** "COVID 19: Role of Chemistry" (Two Days International Webinar on "COVID-19: PROBLEMS AND CHALLENGES", Government General Degree College, Ranibandh, Bankura, June 26-27, 2020)
3. **Samir Kumar Mandal** "Julia-Kociensky Olefination: A Key Step to Fluorinated ( $\pm$ )-Goniothalamine Oxide Analogues" (Two Days International seminar on "ADVANCEMENTS IN CHEMICAL SCIENCES: ISSUES AND CHALLENGES", Bidhan Chandra College, Asansol, Paschim Bardhaman, February 4-5, 2020)
4. **Samir Kumar Mandal** "Julia-Kociensky Olefination : A Key Step to Fluorinated 6-Substituted 5,6-dihydropyran-2-one Analogues" (Two Days National Seminar on "Celebrating International Year of Periodic Table - 2019", Bankura Sammilani College, Bankura, March 18-19, 2019)
5. **Samir Kumar Mandal** "Activity of Benzo[a]pyrene Metabolites: Effect of Fluorine" (Two Days Recent Trends in Applied Sciences and Humanities (RTASH 2019)", DIATM, Rajbandh, March 16-17, 2019)
6. **Samir Kumar Mandal** "Synthesis of Nucleoside Adducts from Fluorinated Benzo[a]pyrene Metabolites" (National Symposium on Recent Advances in Chemistry and Industry – 2017, IEST, Sibpur, WB August 2-3, 2017)
7. **Samir K. Mandal** and Apurba Sarkar "Synthesis of fluorinated 6-substituted 5,6-dihydropyran-2-one analogues" (UGC Sponsored National Seminar on Recent Trends in Chemistry Research, Visva-Bharati, Santiniketan, March 25-26, 2017)
8. **Samir K. Mandal** and Asoke P. Chattopadhyay "An approach for the synthesis of fluorinated 6-substituted 5,6-dihydropyran-2-one analogues" (UGC Sponsored National Seminar on Emerging Trends in Chemistry (ETC-2016), North East Hill University, Shillong, March 28-29, 2016)
9. **Samir K. Mandal** and Asoke P. Chattopadhyay "An approach for the synthesis of fluorinated 6-substituted 5,6-dihydropyran-2-one analogues" (UGC Sponsored National Seminar on Current Trends in Chemistry VII, University of Kalyani, February 24, 2016)
10. **Puskin Chakraborty**, **Samir Kumar Mandal**, Subhas Chandra Roy "An efficient approach towards the synthesis of biologically active furano lignans via titanocene(III) chloride mediated unique radical addition-elimination process" (15th Tetrahedron Symposium, Challenges in Bioorganic and Organic Medicinal Chemistry, Singapore, October 28-31, 2014, P1.39)
11. **Samir Kumar Mandal** and Barbara Zajc\* "Synthesis of Regiospecific Fluoro-vinyl Organic Intermediates" (UGC Sponsored National Seminar on Frontiers in Chemistry, University of North Bengal, March 11-12, 2014)
12. **Samir Kumar Mandal** "Design of Modern Agrochemicals: Plant and Soil Protection"(National Seminar on Biotechnology for People: Applications and Awareness, P. D. Women's College, Jalpaiguri, December 4-5, 2012)
13. **Samir Kumar Mandal** "Modified DNA: Metabolism of Polycyclic Aromatic Hydrocarbon and Role of Conformation in Biology" (UGC Sponsored National Seminar on Anthropogenic Toxicants, Green Chemistry, Biodiversity and Sustainable Development: An Interdisciplinary Approach, P. D. Women's College, Jalpaiguri, March 13-14, 2012)

14. **Samir Kumar Mandal** "Fluoro-Julia Olefination Reaction for Modular Assembly of Fluoro-Organics" (UGC Sponsored National Seminar on A Journey Through Recent Developments In Chemistry, A.B.N. Seal College, Cooch Behar, March 1-2, 2012)
15. **Samir Kumar Mandal** "Research Work" (ISM, Dhanbad, November 18, 2014 for faculty position)
16. **Samir Kumar Mandal** "Research Work" (IIT, Patna, June 5, 2013 for faculty position)
17. **Samir Kumar Mandal** "Research Work" (KSKRA, BARC, Mumbai, October 19, 2012 for scientific position)
18. **Samir Kumar Mandal** "Synthesis of Nucleoside Adducts from Fluorinated Benzo[a]pyrene Metabolites and Fluoro-Julia Olefination Reaction for Modular Assembly of Fluoro-Organics" (GVK Biosciences Private Limited, Hyderabad, July 31, 2012 for scientific position)
19. **Samir Kumar Mandal** "Research Presentation" (BITS, Pilani, November 11, 2011 for faculty position)
20. **Samir Kumar Mandal** "Synthesis of Nucleoside Adducts from Fluorinated Benzo[a]pyrene Metabolites and Fluoro-Julia Olefination Reaction for Modular Assembly of Fluoro-Organics" (**Centre for Excellence in Basic Sciences, Mumbai**, September 14, 2011)
21. **Samir Kumar Mandal** "Synthesis of Nucleoside Adducts from Fluorinated Benzo[a]pyrene Metabolites" (National Institute of Technology, Rourkela, July 24, 2011 for faculty position)
22. **Samir Kumar Mandal** "Synthesis of Nucleoside Adducts from Fluorinated Benzo[a]pyrene Metabolites and Fluoro-Julia Olefination Reaction for Modular Assembly of Fluoro-Organics" (SVKM's NMIMS, Mumbai, April 25, 2011 for faculty position)
23. Deborah O. Ayeni, **Samir Kumar Mandal** and Barbara Zajc\* "An Approach to the Synthesis of Trifluoromethyl-Substituted Olefins", Annual Biomedical Research Conference for Minority Students, Charlotte, NC, 2010 (**Best award winner**).
24. Matthew P. Tracey, **Samir Kumar Mandal** and Barbara Zajc\* "An Approach to the Synthesis of Trifluoromethyl-Substituted Olefins Using Pyridine-Based Substrates" June 29, C-SURP 2010, Macauley Honors College, New York.
25. Deborah O. Ayeni, **Samir Kumar Mandal** and Barbara Zajc\* "An Approach to the Synthesis of Trifluoromethyl-Substituted Olefins" December 2, CCAPP-2010, City College of New York.
26. Deborah O. Ayeni, **Samir Kumar Mandal** and Barbara Zajc\* "Studies Towards the Synthesis of 3,3,3-Trifluoropropenyl Derivatives" CCAPP-2009, City College of New York.

#### **Invited Seminar**

1. **Samir Kumar Mandal** "Synthesis of Nucleoside Adducts from Fluorinated Benzo[a]pyrene Metabolites and Fluoro-Julia Olefination Reaction for Modular Assembly of Fluoro-Organics" (**Centre for Excellence in Basic Sciences, Mumbai**, 14 September, 2011).

#### **National/ International Seminars/Conferences/ Workshops Attended:**

1. JSTOR's third annual event co-hosted with INFLIBNET, Jadavpur University, Kolkata, November 21, 2014 2010
2. Tri-State CACS Annual Symposium, Rutgers University, New Jersey, June 26, 2010

3. City College Academy for Professional Preparation (CCAPP), City University of New York, April 8, 2010
4. National Symposium on Advance Chemistry (NSAC - 2008), Jadavpur University, Chemistry Department, November 5, 2008.
5. National Symposium on Current Trends in Chemistry, University of Kalyani, Chemistry Department, January 30-31, 2007
6. National Symposium on Organic Chemistry – III (NSOC – III), Recent Trends and Perspectives, Jadavpur University, Chemistry Department, February 22-23, 2006
7. 7<sup>th</sup> National Symposium in Chemistry (CRSI, Chemical Research Society of India), IACS, Chemistry Department, February 4-6, 2005

#### SEMINAR/ WORKSHOP ORGANIZED

Sl. No	Role	Seminar/ Workshop	Title	Duration	Sponsored	Amount
1.	Convener	Webinar	<i>Frontiers at the interface of chemistry and biology</i>	30 August, 2020	College	-
2.	Coordinator	Workshop	<i>Modern Trends in Chemistry: Teaching and Research</i>	8-9 March 2018	ICS	-
3.	Secretary	Seminar	<i>Chemistry on Its Way: Impacts on the Environment(CIW-II)</i>	31 August -1 September, 2017	SCAA	-
4.	Coordinator	Workshop	<i>Emerging Trends in Chemistry</i>	17-18 February 2017	IASc, INSA, NASI	1,72,500/-
5.	Secretary	Seminar	<i>Chemistry on Its Way: Impacts on the Environments</i>	1-2 September, 2016	UGC	1,50,000/-
6.	Coordinator	Workshop	<i>Short term certificate course on "Spoken English"</i>	28-30 December 2015	UGC	6,000/-

#### Major/Minor Research ongoing/Completed:

Sl. No.	Role	Title	Duration	Sponsored	Amount
1.	Project Investigator	<i>Strategies for the synthesis of fluorinated 6-substituted 5,6-dihydropyran-2-one analogues</i> (Reg. No: CS-412/2013)	3 Years (Completed)	DST-SERB	Rs. 23,10,000/-

### International & National links for Teaching & Research:

1. Associate with Prof. (Dr.) Asoke Prasun Chattopadhyay, Department of Chemistry, University of Kalyani, Kalyani, West Bengal, India.
2. Associated with Prof. (Dr.) Barbara Zajc, Department of Chemistry, City University of New York, New York, USA.
3. Associate with Prof. (Dr.) Subhas Chandra Roy, Department of Chemistry, Indian Association for the Cultivation of Science, Kolkata, India.

### Awards/Membership

Agency/Organisation	Type	Since	Membership ID
World Science Congress	Life Member	2015	WSC14M
The Indian Physical Society	Life Member	2008	LM/0826

### COURSES TAKEN

Agency	Course Name	Year	Type
Collaborative Institutional Training Initiative	Responsible Conduct of Research	2009	Online
New York Fire Department	Certificate of fitness for chemical laboratory	2009	Class
Research Foundation of CUNY	Preventing Sexual Harassment	2009	Online

### Faculty Development Courses or Programmes Attended:

Sl. No.	Course	Sponsoring Agency	Institutions	Period/Date
1.	Refreshers Course	MHRD	FDC, IIT, ISM, Dhanbad	1.06.2017 to 21.06.2017
2.	Orientation Programme	UGC	HRDC, The University of Burdwan	04.09.2018 to 01.10.2018

### Extracurricular Activities:

1. Motivating students in different IT-assisted teaching learning process (Google Classroom, Google meet)
2. Assisting in different ways to access GOI initiative online learning data base (NPTEL, CEC, ePG-pathshala).

### Associated with any other Organization: NA

### Editorial Board Member/Reviewer

1. Reviewer of Mini-Review in Organic Chemistry
2. Reviewer of The Journal of Organic Chemistry
3. Reviewer of Letters in Organic Chemistry

### Other Academic Activities:

1. **SPOC** of SWYAM-NPTEL Local Chapter at Saldiha College (Self Study Course)
  2. **Administrator** of N-LIST programme at INFLIBNET Centre (E-Resource)
  3. Acted as member of different Sub-Committees belong at Saldiha college.
  4. Acted as committee member of different Sub-Committees belong at P. D. Women's College from 2011-2014
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