

Dr.Sasmita Baliarsingh, Asst.Professor in Chemistry

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Research Work

I have completed my M. Phil. Degree in the year 2004 in Organic Chemistry in the topic entitled “**Synthesis of Dispiro Compounds Containing Oxazole and Thiazolidenone units.**” Then I joined as a Research Fellow in Project “**Potential Drugs from Sea**” at Institute of Minerals and Materials Technology, Bhubaneswar since 8th Aug. 2005 to 15th Feb. 2009. I have completed my Ph.D under guidance of Prof B.K. Mishra at School of Chemistry, Sambalpur University in the field off **Behaviour of Some Bis-Chromophoric Dyes in Organic and Aquo-Organic Solvents** Then I was working as a Senior research Fellow in IMMT(BBSR)(**CSIR**) under the guidance of DR.N. B. Das(Emeritus Scientist) in the field of **Extraction and Isolation of Colourants from Natural Dyes of Leaves and Bark of different Plants and Dyeing the Silk and Cotton yarn using those Natural Dyes.** Then I was working as a Asst.Professor in Chemistry in regional institute of education ,BBSR. Then I was working as lecturer in chemistry in Khallikote Junior College. Now I am working as lecturer in chemistry in Khallikote UnitaryUniversity as lecturer in chemistry.

Educational Qualifications: M.Phil. Ph.D, B.ed

Specialization: Organic Chemistry

Achievements: First class First in M.Sc. Chemistry in the session 1999-2001

Experience:

- Isolation of organic compounds their chemical analysis
- Identification of isolated compounds.
- Expert in column chromatography and thin layer chromatography
- Principles and operation of most sophisticated instrument like **GC, GCMS, HPLC, UV-spectrophotometer, IR, Flurometer, Colourscan meter and pH meter,NMR.**
- Synthesis of different organic compounds and cyanine dyes.
- Dyeing of cotton and silk with natural dye using various mordants

Teaching Experience/Research Experience

Name of the organization	Position	Period	Job Description (Teaching / industry/research)
Khallikote University	Lecturer in Chemistry	16.01.2015 to till now	Senior Lecture
Khallikotejunior College	Lecturer in Chemistry	02.07.2014 to 16.01.15	Junior Lecture
Regional institute of educations	Asst.Profin Chemistry	25.07.2013to 31.03.2014	Teaching
IMMT, BBSR	SRF(Senior Research Fellow)	1.7.2011 to 31.10.2012	Research
Sambalpur university	DRS Fellow	16.2.2009 to 30.6.2011	Research
IMMT,BBSR	PA-II	8.8.2005 to 15.2.2009	Research

Paper Published /Communicated:

1. Exploring sustainable technique on natural dye extraction from native plants for textile: identification of colourants, colourimetric analysis of dyed yarns and their antimicrobial evaluations. **Sasmita Baliarsingh**, Alok K. Panda, Trupti Das and Nalin B. Das, Journal of cleaner production.37(2012)257-264IF-3.84 AU-1
2. Role of cationic and anionic surfactants in textile dyeing with natural dye extracted from waste plant materials and their potential antimicrobial properties. **Sasmita Baliarsingh**,Jyotsnarani Jena, Trupti Das and Nalin B. Das*,Industrial crops and products50(2013)618-624
3. UV reflectance attributed direct correlation to colour strength and absorbance of natural dyed yarn with respect to mordant use and their potential antimicrobial efficacy **Sasmita Baliarsingh**, Padma C. Behera, Jyotsnarani Jena, Trupti Das, Nalin B. Das, Journal of Cleaner Production 102 (2015) 485-492.**IF-3.84 AU-1**
4. Solvent effect on the photophysical behavior of some bischromophoric hemicyanines dyes.**Sasmita Baliarsingh**^a,Sabita Patel^b and Bijay Kumar Mishra^{a*}.*IndianjournalofChemistryA. Vol-52A,Page-9-18,2013*

5. Dye-DNA interaction on cyanine dyes. S. Dash, M. Panigrahi, **S. Baliarsingh**, S. Patel, B.K. Mishra. *J. Current Org. Chem.* **2011**, vol-15, pp-111-115
6. Antibacterial study and fatty acid analysis of lipids of the sponge *Myrmekioderma granulate*. P.M.Mishra, A.Sree, **S. Baliarsingh**, *Chemistry of Natural Compound*. **2009**, 45, 621-624.
7. Fatty acid profile and sterol composition of the marine sponge *Azorika pfeifferae*. S.K.Padhan, **S. Baliarsingh**, P.M.Mishra, A.Sree, and M. Panigrahi, *Chemistry of Natural compounds*. vol. 48. No. 1, **2012**, IF-0.51 AU-3
8. Antibacterial study and fatty acid analysis of lipids of the sponge *Spiritellata vagamunda*. P. M. M. Mishra, S. K. Padhan, A.Sree, **S. Baliarsingh** and M. Panigrahi, *Chemistry of Natural compounds*. *Chemistry of Natural Compounds*, 973–975. no-6, **2012**
9. Anti-Inflammatory and Anti-Microbial Activity of Chalcone from *Dalbergia sissoo* Roxb. leaves. Padma C. Behera^a, **Sasmita Baliarsingh^a**, Nalin B. Das^b, S. M. Verma^a, Posa Mahesh Kumar^a and Pravat M. Mishra^b, *American journal of Phytomedicine and clinical therapeutics* [2] [2013] 186-194 (**published**)
10. Study and comparison of fatty acid profile of two gorgonians of the family Paramuriceidae Bayer. P. M. M. Mishra, **S. Baliarsingh**, S.K.Padhan A.Sree, and P.M. Mahanty, *Chemistry of Natural compounds*. *Chemistry of Natural Compounds* **2014** (50) 114-116.
11. Fatty acid profile, sterol composition of lipids and antibacterial study of a sponges *Psammaphysilla purpurea* collected from Bay of Bengal (Odisha Coast). M. M. Mishra, S. K. Padhan, A.Sree, **S. Baliarsingh** and P.M. Mahanty, *Chemistry of Natural Compounds* **2014** (50) 520-523. **IF-0.51 AU-3**
12. Fatty acid profile and sterol composition of a marine sponge *Petrosia testudinaria* (Lamarck) collected from the Bay of Bengal of the Odisha Coast, **Susant Kumar Padhan**, Pravat Manjari Mishra, **Sasmita Baliarsingh**, A.Sree and M. Panigrahi, *Chemistry of Natural Compound*, **2015**, vol 51, Pg 323-325.

Conference Papers:

- (I) Synthesis of spiro heterocyclic compounds containing thioazolidinone units. **S. Baliarsingh**, A. Pati, M. Patra, A.K. Behera and R.K. Behera. 18th annual conference, Dec. 25-26, 2004.
- (II) Absorption of styryl pyridinium dyes in silica surface. **S. Baliarsingh**, S. Dash, S. Patel and B.K. Mishra, NATCOSEF, Srinagar, 27th July, 2009.

- (III) Antimicrobial screening and fatty acid analysis of lipids the sponfe Myrmekioderma granulate (Esper) collected from the Bay of Bengal of the Orissa coast. P.M. Mishra, A. Sree, **S. Baliarsingh**, M. Acharya, A.P. Das, B. Dash, and S.K.Padhan. 20th Annual Conference Orissa Chemical Society, December, 16-17, 2006, P-26.
- (IV) Importance, Usefulness and Protection of the marine environment, Pravat Manjari Mishra, A. Sree, B. Dash, **S. Baliarsingh**, S.K. Padhan, M. Archery and A.P. Das, 9th Regional Conference of Orissa Chemical Society, September, 17, 2006, P-41.
- (V) **Bangal ki khadi (Odissa Tath) ke stanbaddha jibon abom unke sukhmajaibik sahacharion ki samudri jaib bibidhata ka anwensan abom sandhron.**, A.Sree, Pravat Manjari Mishra **Sasmita Baliarsingh**, Bandita Dash, Susanta Padhan, Anurag Pratap Das and M. Acharya *Rajabhasa Hindi mein Sangosthi*, December, 6-7, 2006.
- (VI) Effect of spacer on the pK_a of some novel Bischromophoric styryl pyridinium dyes in aqueous and surfactant medium. **S. Baliarsingh**, S.Patel, and B.K. Mishra. RETICS, 24th Feb.2010.
- (VII) **Solvent Effect on the Photophysical Behavior of Some Bischromophoric Hemicyanines Dyes.** **Sasmita Baliarsingh**, Sabita Patel and Bijay Kumar Mishra, Odisha Chemical Society, 29th Feb.2011
- (VIII) **UGC Sponsored workshop for research Scholar in Science faculties 9-14 November,2009.**
- (IX) **International Conference on Innovative applications of Chemistry in Phamacology and Technology,2015.**
- (X) National conference on research and advance material technology (RAIM) VSSUT, Burla, 2015. National seminar
- (XI) **Workshop on photocatalyst.SOA University,2016.** National seminar
- (XII) **Chemical Investigation and antibacterial study of lipids of DALBERGIA SPINOSA ROOT**, National seminar on OBPC, 2016, National seminar
- (XIII) **Conference on Orissa Chemical Society,2016.** National seminar
- (XIV) **Conference on Orissa Chemical Society, 2017,.** National seminar, Participation.
- (XV) **Chemical Investigation and antibacterial study of different extracts of DALBERGIA SPINOSA ROOT.** Orissa chemical society, 2021