

DR. SASADHAR MAJHI

Assistant Professor

M.Sc (Chemistry); PhD (Chemistry)

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Overview:

Dr. Majhi currently serves as the coordinator of the PG department of chemistry of Triveni Devi Bhalotia College (Government Sponsored and Affiliated to The Kazi Nazrul University, Asansol, previously affiliated with the University of Calcutta and the Burdwan University), Raniganj, West Bengal, India, 713347. He worked as an assistant lecturer also at Patha-Bhavana, Visva-Bharati University, Santiniketan, and West Bengal. With more than fifteen years of teaching experience, Dr. Majhi has published several research papers in national and international journals of high reputation. He has also participated in various national and international conferences and symposia. His research interest focuses on the isolation and characterization of natural products, semisynthetic products, total synthesis, and promising organic molecules as well as green chemistry. He is also interested in the field of biological activities of phytochemicals. He performs as a good reviewer in international journals of high impact (IF more than 10 frequently).

Date of appointment to the present job:

29th April 2015

Other Academic/ Administrative post:

PG coordinator of the department of chemistry at Triveni Devi Bhalotia College (01-01-2022 to 01-01-2024)

Academic background:

Dr. Sasadhar Majhi received B.Sc. (Honours) degree in Chemistry and M.Sc. (Organic specialization) both from Visva-Bharati University (a Central University). Dr. Majhi qualified for CSIR-NET in December and devoted himself to research work at Visva-Bharati University. He obtained a Ph.D. from Visva-Bharati University under the supervision of Prof. Goutam Brahmachari (FRSC) in the area of natural products. He also earned his M.Phil in Chemistry in 2009.

Information about M Phil/Ph D etc.: **PhD Topic:**

STUDIES ON PHYTOCHEMICAL CONSTITUENTS OF SOME TRADITIONALLY USED INDIAN MEDICINAL PLANTS: ISOLATION, STRUCTURAL ELUCIDATION AND CHEMISTRY

Weblink: <https://drive.google.com/file/d/1P5x7JVninpy2cEeOuaFHCCF9eujndo8k/view?usp=sharing>

Area of present academic/ Research interest/ Research Projects & Schemes and Collaborations:

Research interest: Research interests include the isolation and structural elucidation of natural

products, semisynthetic derivatives, total synthesis, biological activities, green chemistry, toxicology, synthetic organic chemistry, nano chemistry, and environmental chemistry.

(Web link:

<https://drive.google.com/file/d/1P5x7JVninpy2cEeOuaFHCCF9eujndo8k/view?usp=sharing>

Ph.D. Supervision:

Thesis topics

STUDIES ON PHYTOCHEMICAL CONSTITUENTS OF SOME TRADITIONALLY USED INDIAN MEDICINAL PLANTS: ISOLATION, STRUCTURAL ELUCIDATION AND CHEMISTRY

Prof. Goutam Brahmachari (under the supervision)

Academic Visit Abroad:

NA

Publications:

- ❑ **S. Majhi***, Discovery, Development, and Design of Anthocyanins-Inspired Anticancer Agents-A Comprehensive Review, *Anti-cancer Agents in Medicinal Chemistry*, **2022**, IF **2.505**. DOI: [10.2174/1871520621666211015142310](https://doi.org/10.2174/1871520621666211015142310).
Weblink: <https://pubmed.ncbi.nlm.nih.gov/34779372/>
- ❑ **S. Majhi***, Recent developments in the synthesis and anti-cancer activity of acridine and xanthine-based molecules, *Physical Sciences Reviews*, **2022**, IC **1.02**. DOI: [org/10.1515/psr-2021-0216](https://doi.org/10.1515/psr-2021-0216).
Weblink: <https://www.degruyter.com/document/doi/10.1515/psr-2021-0216/html?lang=en>
- ❑ **S. Majhi***, Synthesis of bioactive natural products and their analogs at room temperature—an update, *Physical Sciences Reviews*, **2022**, IC **1.02**. DOI: [org/10.1515/psr-2021-0094](https://doi.org/10.1515/psr-2021-0094).
Weblink: <https://www.degruyter.com/document/doi/10.1515/psr-2021-0094/html?lang=en>
- ❑ **S. Majhi***, Applications of ultrasound in total synthesis of bioactive natural products: A promising green tool, *Ultrasonics Sonochemistry*, **2021**, *77*, 105665. IF **9.336**. DOI: [org/10.1016/j.ultsonch.2021.105665](https://doi.org/10.1016/j.ultsonch.2021.105665).
Weblink: <https://www.sciencedirect.com/science/article/pii/S1350417721002078>
- ❑ **S. Majhi***, Applications of Norrish type I and II reactions in the total synthesis of natural products: a review, *Photochemical & Photobiological Sciences*, **2021**, *20*, 1357-1378. IF **4.328 (2021)**. DOI: [10.1007/s43630-021-00100-3](https://doi.org/10.1007/s43630-021-00100-3).
Weblink: <https://pubmed.ncbi.nlm.nih.gov/34537894/>
- ❑ **S. Majhi***, The Art of Total Synthesis of Bioactive Natural Products via Microwaves. *Current Organic Chemistry*, **2021**, *25*, 1047-1069. IF **2.180**. DOI: [10.2174/1385272825666210303112302](https://doi.org/10.2174/1385272825666210303112302).
Weblink: <https://www.eurekaselect.com/article/114700>
- ❑ **S. Majhi***, Applications of Yamaguchi method to esterification and macrolactonization in total synthesis of bioactive natural products, *ChemistrySelect*, **2021**, *6*, 4178-4206. IF **2.109**. DOI: [org/10.1002/slct.202100206](https://doi.org/10.1002/slct.202100206).
Weblink: <https://chemistry-europe.onlinelibrary.wiley.com/doi/10.1002/slct.202100206>
- ❑ **S. Majhi***, D. Das, Chemical derivatization of natural products: semisynthesis and pharmacological aspects-A decade update, *Tetrahedron*, **2021**, *78*, 131801. IF **2.457**. DOI: [org/10.1016/j.tet.2020.131801](https://doi.org/10.1016/j.tet.2020.131801).
Weblink: <https://www.sciencedirect.com/science/article/abs/pii/S0040402020310449>

- ❑ **S. Mahji***, Diterpenoids: Natural Distribution, Semisynthesis at Room Temperature and Pharmacological Aspects-A Decade Update, *ChemistrySelect*, **2020**, *5*, 12450-12464. IF **2.109**. DOI: [org/10.1002/slct.202002836](https://doi.org/10.1002/slct.202002836).

Weblink: <https://chemistry-europe.onlinelibrary.wiley.com/doi/abs/10.1002/slct.202002836>

- ❑ K. Sinha, S. Chowdhury, B. Mandal, M. Mandal, **S. Mahji**, G. Brahmachari,* S. Banerjee, J. Ghosh, P. C. Sil,* Lupeol alters viability of SK-RC-45 (RCC cell line) by modulating its mitochondrial dynamics, *Heliyon* (Elsevier), **2019**, *5*, e021074. IF **1.860**. DOI: [org/10.1016/j.heliyon.2019.e02107](https://doi.org/10.1016/j.heliyon.2019.e02107).

Weblink: <https://www.sciencedirect.com/science/article/pii/S2405844019357676>

- ❑ G. Brahmachari,* **S. Majhi**, B. Mandal, M. Mandal, A. Kumar, A. K. Srivastava, R. B. Singh, N. Misra, Stigmasterol from the Flowers of *Peltophorum pterocarpum* (DC.) Backer ex K. Heyne (Fabaceae) — Isolation, Spectral Properties and Quantum Chemical Studies, *Journal of Indian Chemical Society*, **2018**, *95*, 1-14. IF **0.45**.

Weblink:

https://www.researchgate.net/publication/330910952_Stigmasterol_from_the_flowers_of_Peltophorum_pterocarpum_DC_Backer_ex_K_Heyne_Fabaceae_Isolation_spectral_properties_and_quantum_chemical_studies

- ❑ **S. Majhi***, Neomangiferin: Semi-synthesis and antidiabetic potential, *Journal of Organic and Biomolecular Chemistry*, **2015**, *3*, 34 - 37.

Weblink: https://drive.google.com/file/d/1TejDtLNoECbgRfHcAux77_yPOPbPxAvt/view?usp=sharing.

- ❑ S. K. Jash, R. K. Singh, **S. Majhi**, A. Sarkar, D. Gorai, *Peltophorum Pterocarpum : Chemical and Pharmacological Aspects*, *International Journal of Pharmaceutical Sciences and Research*, **2014**, *5*, 26-36. DOI: [http://dx.doi.org/10.13040/IJPSR.0975-8232.5\(1\).26-36](http://dx.doi.org/10.13040/IJPSR.0975-8232.5(1).26-36).

Weblink: <https://ijpsr.com/bft-article/peltophorum-pterocarpum-chemical-and-pharmacological-aspects/>

- ❑ Dilip Gorai, Shyamal K. Jash, Raj K. Singh, A. Sarkar, **S. Majhi**, *Chemical and pharmacological aspects of Limnophila rugosa: An update*, *International Journal of Natural Products Research*, **2013**, *3*, 120-124.

- ❑ G. Brahmachari,* L. C. Mandal, R. Roy, S. K. Jash, A. Mondal, **S. Majhi** and D. Gorai, Lupeol, a pharmaceutically potent triterpenoid, from the ripe fruits of *Rauvolfia tetraphylla* L. (Apocynaceae), *Journal of Indian Chemical Society*, **2011**, *88*, 303-305. IF **0.45**.

Weblink: https://jglobal.jst.go.jp/en/detail?JGLOBAL_ID=201202209021507206

- ❑ G. Brahmachari,* L. C. Mandal, D. Gorai, A. Mondal, S. Sarkar, **S. Majhi**, A new labdane diterpene from *Rauvolfia tetraphylla* Linn. (Apocynaceae), *Journal of Chemical Research*, **2011**, *35*, 678-680. IF **0.782**. DOI: [org/10.3184/174751911X13220462651507](https://doi.org/10.3184/174751911X13220462651507).

Weblink: <https://journals.sagepub.com/doi/abs/10.3184/174751911X13220462651507>

- ❑ G. Brahmachari,* N. C. Mandal, S. K. Jash, R. Roy, L. C. Mandal, A. Mukhopadhyay, B. Behera, **S. Majhi**, A. Mondal, A. Gangopadhyay, Evaluation of Antimicrobial Potentiality of Two Flavonoids from *Limnophila* Plants. *Chemistry and Biodiversity*, **2011**, *8*, 1139-1151. IF **2.408**. DOI: [10.1002/cbdv.201000264](https://doi.org/10.1002/cbdv.201000264).

Books and Chapters:

(Write your books & chapters references in the format given below. Please use bullets as below)

- ❑ **Dr. Majhi** is the author of the book entitled '**GREEN CHEMISTRY AND SUSTAINABILITY:- A UNIFIED APPROACH**', ISBN: 978-81-8487-737-3, Narosa Publishing House, Daryaganj, New Delhi, **2022**.
- ❑ **Dr. Majhi** is co-author of the book entitled '**Modern Sustainable Techniques in Total Synthesis of Bioactive Natural Products**', World Scientific publisher, **2022**.
- ❑ **Dr. Majhi** is co-author of the book entitled 'Modern Sustainable Techniques in Total Synthesis of Bioactive Natural Products', World Scientific publisher, 2022 and he is also co-author of the book entitled 'Semisynthesis of Bioactive Compounds and their Biological Activities' Elsevier.
- ❑ **Dr. Majhi** is one of the editors of the book entitled '**Science and Technology: A Concise History and Evolution**' bearing ISBN: 978-81-945060-3-4, KUMUD PUBLICATIONS, Delhi-110053.
- ❑ **S. Majhi***, S. Manickam* G. Cravotto, Recent Advances in Sonochemical Organic Synthesis - A Greener and Sustainable Approach, **2022**, CRC Press. Taylor & Francis Group, LLC.
- ❑ **S. Majhi***, Applications of nanoparticles in organic synthesis under ultrasonication, **2022**, Elsevier, Amsterdam.
- ❑ **S. Majhi***, Drug Discovery and Development—A Lucid Approach Science and Technology: A Concise History and Evolution, **2020**, Delhi, India.
- ❑ **S. Majhi***, Green Chemistry and Prominent Greener Technologies Science and Technology: A Concise History and Evolution, **2020**, Delhi, India.
- ❑ A. K. Dey, **S. Majhi***, Amyrin and its natural derivatives: Biological activities and potential natural inhibitors, **2022**, India.
- ❑ **S. Majhi***, Synthesis of bioactive natural products and their analogs at room temperature—an update, **2022**, De Gruyter, Germany.
- ❑ **S. Majhi***, Recent developments in the synthesis and anti-cancer activity of acridine and xanthine-based molecules, **2022**, De Gruyter, Germany.

Seminars, Webinars and Conferences attended:

- ❑ **Isolation, spectral properties and quantum chemical studies of stigmaterol- a natural phytosterol isolated from a new source Peltophorum pterocarpum (Fabaceae). Sasadhar Majhi**, International Seminar on advancements in chemical sciences: Issues and challenges, February 4-5th 2020, Bidhan Chandra College, Asansol, Paschim Bardhaman, West Bengal, India, PP40.
- ❑ **Stigmaterol from the flowers of Peltophorum pterocarpum (DC.) Backer ex K. Heyne (Fabaceae) — Isolation, spectral properties and quantum chemical studies. Sasadhar Majhi**, Neeraj Misra and Goutam Brahmachari*, International Conference on Chemistry for Human Development (ICCHD-2018), January 8-10th, 2018, Heritage Institute of Technology, Kolkata, W.B., India, P089.
- ❑ **Chemistry of Methyl 2,7-dihydroxy-1-methyl-6-oxo-6H-benzo[c]chromene-9-carboxylate: A New Natural Pigment from Cassia sophera Linn. (Caesalpinaceae). Sasadhar Majhi**, Bhagirath Mandal

and Goutam Brahmachari*, 5-6 April, 2018, *National Seminar On Frontiers in Chemical Sciences (NSFCS-2018)*, Sponsored by SERB (Govt. of India), Trivenidevi Bhalotia College, Raniganj, W.B., PP6.

- ❑ **Chemistry of stigmasterol - A bioactive natural phytosterol.** Sasadhar Majhi and Goutam Brahmachari*, *National Symposium on Recent Advances in Chemistry Research(RACR- 2018)*, 11th March, 2018, Dept. of Chemistry, Visva-Bharati, Santiniketan, W.B., India, P85.

- ❑ **GC-MS analysis of *Cassia sophera* Linn.(Caesalpinaceae) flower and root extracts and evaluation of their antimicrobial potential,** Sasadhar Majhi, Goutam Brahmachari*, *National Seminar on Recent Trends in Chemistry Research*, March 25-26, 2017, Dept. of Chemistry, Visva-Bharati, Santiniketan, W.B., India, P31.

- ❑ **Isolation and Characterization of a Steroidal compound from *Peltophorum pterocarpum* (DC.) Backer ex K. Heyne (Fabaceae), an Indian Traditional Plant,** Sasadhar Majhi, Brahmachari*, *National Symposium on Recent Advances in Chemistry Research*, March 4th 2016, Dept. of Chemistry, Visva-Bharati, Santiniketan, W.B., India, P73.

- ❑ **Evaluation of antimicrobial property of 5,6 dihydroxy 7,8,4' trimethoxy-flavone of natural origin.** Shaymal K. Jash, Lalan C. Mandal, Partha P. Ghosh, Sadhan Mondal, Avijit Mondal, Rajiv Roy, **Sasadhar Majhi**, Arindam Gangopadhyay and Goutam Brahmachari* February 26, 2010, Dept. of Chemistry, University of Kalyani, Kalyani, W.B., India. P15.

- ❑ **An α -Glucosidase Inhibitory Flavonoid from *Limnophila indica*: A promising lead in antiviral chemotypes;** Lalan C. Mandal, Shyamal K. Jash, **Sasadhar Majhi**, Ritendra Roy and Goutam Brahmachari*; *Proceedings of the National Symposium on Current Trends in Chemistry-III*, 20-21st March, 2009, Dept. of Chemistry, University of Kalyani, Kalyani, W.B., India, OP-07.

- ❑ **A Novel and Optically Active Secondary Alkane-3,20-diol from *Argemone mexicana* (Papaveraceae).** Lalan C. Mandal, Rajiv Roy, Avijit Mondal, **Sasadhar Majhi**, Shyamal K. Jash, Dilip Gorai, Sadhan Mondal and Brahmachari*, *Proceedings of the National Symposium on Current Trends in Chemistry-V*, 20-21st March, 2011, Dept. of Chemistry, University of Kalyani, Kalyani, W.B., India, OP-09.

- ❑ Attended 98th Indian Science Congress on Quality Education and Excellence in Scientific Resesarch in Indian Universities at Chennai and presented a poster on **"A New Pentacyclic triterpene form *Limnophila Indica*"** during 03-07th January, 2011.

- ❑ Attended **"Chemical Research in the First Decade of 21st Century"**, Symposium –IX organized by the Dept. of Chemistry, Visva-Bharati University, Santiniketan, on 06th August, 2011.

- ❑ Attended **"Recent Advances in Chemical Sciences"**, National Seminar organized by the Dept. of Chemistry, The University of Burdwan, Burdwan, on 15-17th March, 2012.

- ❑ Attended National Conference on Green and Sustainable Chemistry at Pilani, Rajasthan and presented a poster on **"Bioactive Triterpenoids from *Rauvaolfa Tetraphylla* – A useful Indian Medicinal plant"** during 19-21st February, 2010.

- ❑ Attended National Seminar on “**Current Trends in Chemistry – IV**” at Kalyani University and presented a poster on 26th February, 2010.
- ❑ Attended “**Recent Advances in Chemistry**”, National Seminar organized by the Dept. of Chemistry, Visva-Bharati University, Santiniketan, on 9th March, 2014.
- ❑ Attended “**Impact of Chemistry on Our Lives**”, National Seminar organized by the Dept. of Chemistry, Visva-Bharati University, Santiniketan, on 25th March, 2011.
- ❑ Attended “**Chemistry Today**”, National Seminar organized by the Dept. of Chemistry, The University of Burdwan, Burdwan, on 18-20th March, 2010.
- ❑ Attended **99th Indian Science Congress Association**, KIIT University on 03-07th January, 2012.

Others/ Miscellaneous:

Special Interest: Music, Cinema
