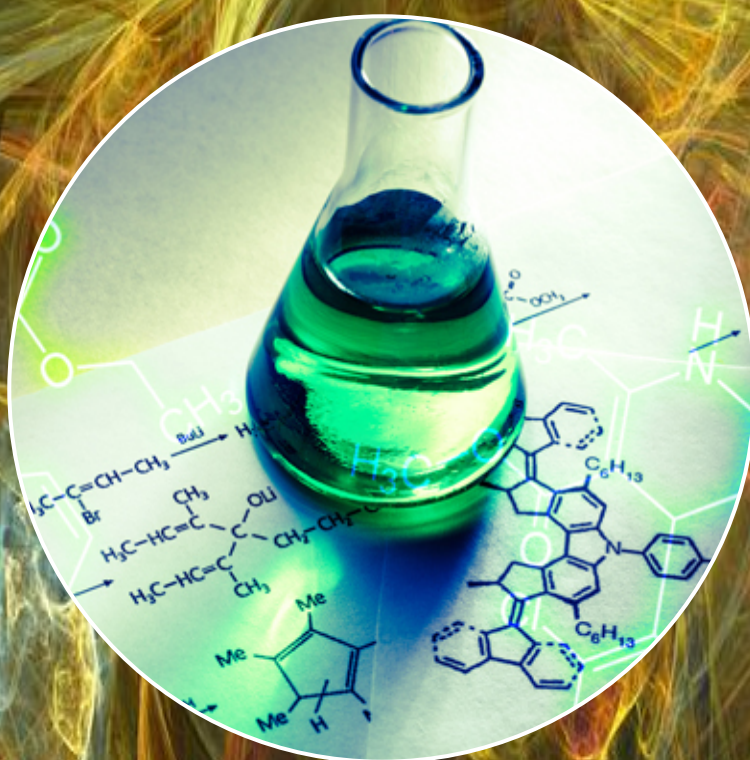


# Modern Approaches in Chemical and Biological Sciences

Volume -2



*Published by:*  
**Lincoln University College, Malaysia**

**Edited by**  
**Hari Shankar Biswas**  
**Sheikh Ahmad Izaddin Sheikh Mohd Ghazali**  
**Sandeep Poddar**  
**Amiya Bhaumik**

**[www.lucp.net](http://www.lucp.net)**

# Modern Approaches in Chemical and Biological Sciences

**Volume -2**

*Edited by*

**Hari Shankar Biswas**

*Assistant Professor and Head Department of Chemistry  
Surendranath College, Kolkata, India*

**Dr. Sheikh Ahmad Izaddin Sheikh Mohd Ghazali**

*Assistant Professor, School of Chemistry and Environmental  
Faculty of Applied Sciences  
University Teknologi MARA Negeri Sembilan Branch  
Kuala Pilah Campus, Malaysia*

**Dr. Sandeep Poddar**

*Deputy Vice Chancellor (Research & Innovation)  
Lincoln University College, Malaysia*

**Dr. Amiya Bhaumik**

*President  
Lincoln University College, Malaysia*

***Published by:***

**Lincoln University College, Malaysia**

**[www.lucp.net](http://www.lucp.net)**

Copyright © 2022

Lincoln University College, Malaysia

All rights reserved

No part of this book can be reproduced or transmitted by any means, electronic or mechanical, including photocopying recording or by any information storage and retrieval system without prior written permission from the publisher.

Published on: 15<sup>th</sup> June, 2022

***Published by:***

**Lincoln University College**

Wisma Lincoln

No. 12-18, Off Jalan, Perbandaran SS 6/12

47301 Petaling Jaya

Selangor Darul Ehsan

Malaysia

Tel.: +603-7806 3478

Fax: +603-7806 3479

Toll Free: 1-300-880-111

E-mail: [lucp@lincoln.edu.my](mailto:lucp@lincoln.edu.my)

Web.: [www.lucp.net](http://www.lucp.net)

ISBN: 978-967-2819-06-6

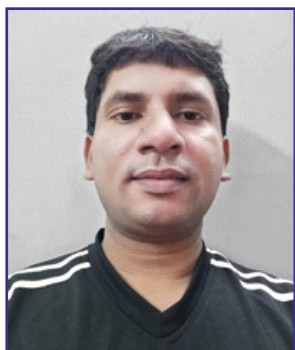
eISBN: 978-967-2819-07-3

doi: 10.31674/

Price: USD 100



## Editors



### **Hari Shankar Biswas**

*Assistant Professor and Head Department of Chemistry  
Surendranath College, Kolkata, India*

Rtn. Dr. Hari Shankar Biswas received has completed his Ph.D in material Science from Saha Institute of Nuclear Physics, University of Calcutta, India. Presently he is Assistant Professor and Head of the Department of Chemistry, Surendranath College, Kolkata. His Research interest is in an interdisciplinary research involving the design and synthesis of nanoscale functional materials, elucidation of the fundamental magnetic, electronic, optical and other physical properties of these materials, and the development of processes that lead to multifunctional objects for specific applications. He is the authored many renowned books and published more than 13 papers in International Journals.



### **Sheikh Ahmad Izaddin Sheikh Mohd Ghazali**

*Associate Professor School of Chemistry and Environmental Sciences  
Faculty of Applied Sciences, Universiti Teknologi MARA Negeri Sembilan Branch  
Kuala Pilah Campus, Malaysia*

Associate Professor Dr. Sheikh completed his BSc in Petroleum Chemistry at University Putra Malaysia and continued there to attain his Master in Science (Natural Product Chemistry) under the supervision of Prof Dr. Gwendoline Ee Cheng Lian, investigating compounds in *Garcinia Mangostana* and *Mesua Coneri* plants and its antimicrobial studies. He was awarded his Ph.D in nanochemistry(nanoclay chemistry) from Universiti Teknologi MARA Malaysia in 2005. His research involves synthesis, characterization, and controlled release formulation between Layered Double Hydroxide intercalated with herbicide, pesticide, and drugs. He was also received many awards such as Best Researcher Award, Academic Leadership Award, Journal Article Publication Award, Most Promising Academician Award and Most Prolific Writer Award in University Academic Award UiTM Negeri Sembilan Branch. Up to date he has almost 100 publication including books, journals, chapter in book etc.

# Editors



## **Sandeep Poddar**

*Deputy Vice Chancellor (Research & Innovation)*  
Lincoln University College, Malaysia

Prof. Dr. Sandeep Poddar, presently the Deputy Vice Chancellor (Research & Innovation) of Lincoln University College, Malaysia. He also served as Senior Research Director and Executive Editor(Publications), Lincoln University College, Adjunct Faculty (Honorary), Bharat Center Canada. He has graduated from University of Calcutta in 1993 with Honours in Zoology, he has obtained Post Graduate Diploma in Dietetics from All India Institute of Hygiene and Public Health 1995, Master of Science in Zoology with specialization in Biochemical Genetics from Dayalbagh Educational Institute 1998 with distinction. In addition to this he also obtained Master of Business Administration (MBA) from Lincoln University College in 2021. He has completed Ph.D. in Zoology from Vivekananda Institute of Medical Sciences on Cytotoxicity in 2004. After completing Ph.D. he pursued Post Doctoral Research in different projects on Hemoglobinopathies and Oral Cancer mutation. He is serving as reviewer of several International Journals. He has published several research papers, organized international conferences, and edited books in Malaysia, Australia and India. Dr. Sandeep is founder Assistant Secretary of Dr. Tarak Nath Podder Memorial Foundation, Kolkata, India.



## **Amiya Bhaumik**

*President*  
Lincoln University College, Malaysia

Dr. Amiya Bhaumik is the Founder and Former Vice-Chancellor of Lincoln University College. He is purely from the field of education. Dr. Bhaumik is Executive Vice President of the International Education Consulting Group, St. Louis, USA since 1999. Dr. Amiya Bhaumik was Research Fellow of UNESCO, Paris. During this tenure, Dr. Bhaumik has traveled extensively to Europe, Africa, Asia and Latin America. He has served as Professor of Business Administration in University of Lucknow, India and in University of Malaya and many other places. Dr. Amiya Bhaumik is a very dynamic personality. He has authored numerous book chapters and has huge number of publication in many national and international journals. He has also edited several books.

## **CONTENTS**

### **Editorial**

**Polyaniline immobilized palladium: An efficient catalyst for reductive degradation of dyes**

*Moumita Roy*

**Current perspective on relevance and applications of microbial enzymes in industries: a review**

*Baishali Pandit*

**Human impacts on nitrogen cycle**

*Suman Tamang*

**El-nino and it's varied impacts: a review**

*Tarikul Islam Golder*

**Applications of Noble Nanomaterials in Ensuring Food Safety: A Review of Recent Developments**

*Kamala Mitra*

**Waste Production in Aquaculture**

*Tarikul Islam golder*

**Treatment for COVID-19: Current Therapy and Challenges**

*Anwesha Bhattacharjee, Pathoja Maity, Souradip Choudhuri, Suvroma Gupta*

**Role of Probiotics on skin health**

*Shamba Chatterjee, Sucheta Das*

**Antibacterial and antifungal activities of *Azadirachta indica* A. Juss (Neem): A review**

*Sonali Ray*

**A review article on sexual selection in peacocks**

*Pragya Singh, Sonia Nath, Chaitali Barman*

**Ethnomedicinal plants used in different seasons by tribals of Asansol Raniganj coalfield area of West Bengal, India**

*Amit Saha*

**Thorpe-Ingold Effect Assisted Strained Rings Synthesis**

*Biswajit Panda*

**Recent Advances in Oxidative Transformation of Oximes with Hypervalent Iodine (III) Reagents**

*Harisadhan Ghosh*

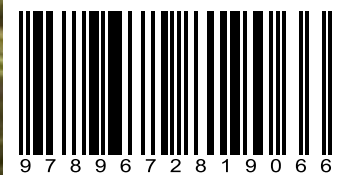
**Micelles and Reverse Micelles: a fascinating Micro-reactor**

*Sisir Debnath*



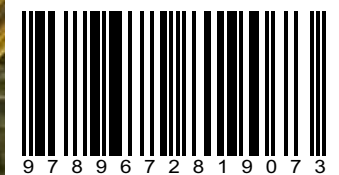
*Published by:*  
**Lincoln University College, Malaysia**

ISBN 978-967-2819-06-6



9 789672 819066

e ISBN 978-967-2819-07-3



9 789672 819073

**[www.lucp.net](http://www.lucp.net)**