



Dr. Arijit Das

CURRICULUM VITAE (CV)

DR. DAS ARIJIT

M.Sc., Ph. D. (Inorganic Chemistry), Fellow (IASR, USA), MACS (INVITED, USA), SFICS, FIAFS, FISC (India), MInSc. (India)

Department of Chemistry, Bir Bikram Memorial College (BBMC) (NAAC Gr-B), Agartala, Tripura (W), Tripura, India, Pin: 799004

Email:

arijitdas78chem@gmail.com

Website:

<https://arijitchemistryworld.in/>

ORCID ID: <https://orcid.org/0000-0001-7409-7237>

Youtube Link:

<https://www.youtube.com/c/DRARIJITDASINNOVATIVECHEMISTRYWORLD>

Formerly:

- 1. Head, Dept. of Chemistry, Ramthakur College, Agartala, Tripura(W), Tripura, India, Pin- 799003 – For a period of more than 3 Years.**
- 2. Head, Dept. of Chemistry, Govt. Degree College, Dharmanagar, Tripura(N), Tripura, India – For a period of more than 2 Years.**
- 3. Senior Scientific Officer (Chemical Discipline), Group A Gazetted, Tripura State Forensic Science Laboratory, Home Dept., Govt. of Tripura, Tripura, India – For a period of 09 Months.**

Table of Contents

Item	Page Number
1. Personal Profile	3
2. Educational Qualifications	4
3. Research Field / Project	5-6
4. Description of Experiences	7-8
5. Academic Seminar/Conference/Workshop/Training	8-10
6. Editor and Reviewer Invitation From Abroad (U.K. & USA)	10
7. Fellowship & Membership of Professional Bodies	10-11
8. Innovation of 21 Teaching Methodologies	11
9. Approval of Different Universities and IIT's	12
10. Press Releases (State/National/International)	13-15
11. Interview on Innovation @ Media	16
12. Award / Honour Received	16-18
13. List of publications with indexing	18-24
14. Indexed ERIC & WikiEducator	24-30
15. Educational Software Tool Launched in USA	30-31
16. chem.libretexts.org, University of California, ACS, NY, USA	31-32
17. Book published	32-33
18. ACS Recognition on Invented 38 Formulae 2023	33
19. Copyright Registration from the Govt. of India	34-37
20. World Championship-2018 in Chemical Education	38-39
21. Appreciation Letters received after achieved copyright Registration certificate from the ACS, ICS, ISCA, IIT's etc.	40-46
22. Certificate on the Recognition from the University of California, Davis	47
23. Letter of Appreciations from Different Eminent Personalities	48-55
24. Invitation from China	56
25. Chemistry Editorial Advisory Board Member, Cambridge Scholars, UK	57
26. Honorary Degree of Doctor of Science (D.Sc.)	58
27. Published Book from the Cambridge Scholars, England, UK	59
28. IQAC Member, Tripura University, Tripura, India	60
29. Convener, Integrated M.Sc. (Chemistry), MBB University	61
30. International Scientist Awards, VDGGOOD, Coimbatore, India	62
31. InSc Awards 2020	63
32. 100 Powerful Personalities 2022	64
33. Indexed Stanford University	65-75
34. Reviewers	76

Personal Details:

Name: DR ARIJIT DAS

Date of Birth: 14th March 1978

Nationality: Indian

Gender: Male

Occupation: Associate Professor (Chemistry)

Marital status: Married

Present residence: AdiAksha Bhaban, Barmantilla, Jogendranagar,
(Correspondence) Agartala, West Tripura, Tripura, India, Pin-799004
Mobile- 91-9862211165/ 9436583574 (M)

Address: S/O Late Anil Ranjan Das, Retd. IS
(Permanent) Kacharghat, Kailashahar, Tripura(N),
Tripura, India, Pin-799277.
Phone:-(03824)(222715)/ 9862211165 (M)
E-mail: arijitdas78chem@gmail.com
URL: www.arijitchemistryworld.in
Orcid ID: <http://orcid.org/0000-0001-7409-7237>

Office: Department of Chemistry,
Bir Bikram Memorial College (BBMC)
College Street, Agartala, Tripura(W), Tripura, India
Tripura, India, Pin-799004

Languages: English, Hindi, Bengali

Summary of Educational Qualifications

Degree/Experience	Year	Institution	University	Duration
Post-Doctoral Research Experience (Inorganic Chemistry)	2008 –	1. Dept. Of Chemistry, T.U.,(2008-2009) 2. SFSL, Narsingarh, Agt. (2010) 3. Govt. Degree College, Dharmanagar, North Tripura(N). (2011-2013) 4. <u>'Synthetic Inorganic Research Lab.'</u>, Sponsored by DST, New Delhi, Govt. of India, at Ramthakur College, Agartala, West Tripura, Tripura, India. (2014 -)	1.Tripura University (A Central University) & 2.Under SERB, DST, New Delhi Govt. of India.	>06 Years
Ph.D. (Inorganic Chemistry)	2008	Dept. Of Chemistry, T.U., Tripura, India.	Tripura University	3Yrs 8 months
M.Sc. (Inorganic Chemistry)	2001	Dept. Of Chemistry, T.U., Tripura, India.	Tripura University	2Yrs.
B.Sc.(Hons in Chemistry)	1998	Dept. of Chemistry, R.K.M. College, Kailashahar, Tripura, India.	Tripura University	3Yrs.

Research Field and Research Project

1. Date of Registration of Ph.D. by Dept. of Chemistry, Tripura University: 27/08/2003.

2. (a) Doctoral degree submitted : 28/05/2007
31/03/2008 Tripura Central University
(b) Doctoral degree awarded: Year :..... University

Title of the Ph.D. Thesis:

“SYNTHESIS AND STRUCTURAL CHARACTERIZATION OF MIXED LIGAND COMPLEXES OF SOME TRANSITION METAL IONS WITH NITROGEN AND SULPHUR DONORS.”

Supervisor: PROF.M.K.SINGH, DEPT. OF CHEMISTRY, TRIPURA UNIVERSITY.

3. RESEARCH FIELD INTEREST:

SYNTHETIC INORGANIC CHEMISTRY:

i) Mixed ligand Complexes ii) 1,1-Dithiolates iii) Crystallography Study iv) DFT study v) TGA
vi) Luminescent properties vii) Electrical conductivity over a wide range of temperature
viii) Antibacterial and antifungal activity studies

INNOVATION IN CHEMICAL EDUCATION:

i) Organic Chemistry ii) Inorganic Chemistry iii) Physical Chemistry

4. Research project (Completed / Ongoing):

SERB, DST, Govt. of India, New Delhi : (Ongoing)

2. Title of the project: “Transition Metal Complexes with Nitrogen & Sulphur donors - Synthesis, Crystal Structure, Luminescent Properties and Biological Activity Studies”.

Lab: ‘SERB-DST Research Lab’, Sponsored by SERB-DST, New Delhi, Govt. of India, at Bir Bikram Memorial College, Agartala, West Tripura, Tripura, India, PIN-799004.

Amount: Rs. 34,37,808/- (Rs. Thirty Four Lakh Thirty Seven Thousand Eight Hundred and Eight Only).

Duration: 03 yrs (March-2022 to March-2025).

Sanctioned No: EEQ/2021/000257 dated Feb 25, 2022.

Number of Project Associate: One (01), **Name:** Dr. Paresh Debnath, M.Sc., Ph.D., NET (Inorganic Chem.) @ 33480.00 / month (Duration 3yrs).

SERB, DST, Govt. of India, New Delhi : (Completed)

1. Title of the project: "Synthesis, Characterization, Luminescent Properties and Biological Activity Studies of mixed ligand complexes of some Transition Metal ions with Nitrogen and Sulphur Donors".

Lab: 'Synthetic Inorganic Research Lab.', Sponsored by DST, New Delhi, Govt. of India, at Ramthakur College, Agartala, West Tripura, Tripura, India, PIN-799003

Amount: Rs.12,00,000/- (Rupees twelve lakhs) .

Duration: 02 yrs (Dec-2013 to Dec-2015).

Sanctioned No: SB/EMEQ-014/2013 dated 28/11/2013

Number of Project Fellow: One (01), **Name:** Mr. Sanjit Sutradhar, M.Sc., NET (Inorganic Chem.) @ 14000.00 / month (Duration 2yrs).

Research Collaboration (Abroad & India):

In Abroad:

1. **Dr.R. Sanjeev**, Department of Pharmacy, School of Health Science, University of KwaZulu-Natal, Durban, **South Africa**.
2. **Prof. Adam A. Skelton**, Department of Pharmacy, School of Health Sciences, University of KwaZulu-Natal, Westville Campus, Durban, **South Africa**.
3. **Prof. Raymond J. Butcher**, Department of Inorganic and Structural Chemistry, **Howard University, Washington, DC, USA**.
4. **Prof. DELMAR S. LARSEN**, Department of Chemistry, **University of California**, One Shields Avenue Davis, CA 95616 , Telephone: (530) 754-9075, FAX: (530) 752-8995.
5. **Prof.(Dr.) Edel Garcia**, (Ex-senior researcher at the Microsoft Innovation Center of Puerto Rico, USA) Director & Founder of **Minerazzi.com, USA**, <http://scribecontent.com/dr-edel-garcia/>.
6. **Prof. Antonio Frontera**, *Departament de Química, Universitat de les Illes Balears, Crta. de Valldemossa km 7.5, 07122 Palma de Mallorca (Balears), Spain*.
7. **Prof. Jerry P. Jasinski**, Department of Chemistry, Keene State College, Keene, NH 03435, **USA**.
8. **Prof. Constantin Gabriel Daniliuc**, Organisch-Chemisches Institut, Westfälische Wilhelms-Universität Münster, Corrensstraße 40, D-48149, **Germany**, Münster.
9. **Prof. Jan K. Zaręba**, Advanced Materials Engineering and Modelling Group, Wrocław University of Science and Technology, Wybrzeże Wyspiańskiego 27, 50-370 Wrocław, **Poland**.
10. **Prof. Antonio Bauzá**, Department de Química, Universitat de les Illes Balears, Crta. de Valldemossa km 7.5, 07122 Palma de Mallorca (Balears), **Spain**.
11. **Prof. Waldemar Maniukiewicz**, Institute of General and Ecological Chemistry, Lodz University of Technology, Zeromskiego 116, 90-924 Lodz, **Poland**.
12. **Prof. Neratur Krishnappagowda Lokanath**, Department of Studies in Physics, **University of Mysore**, Mysuru-570006.

DESCRIPTION OF EXPERIENCES

Academic Experiences:

1. **Faculty of Chemistry** at Govt aid Entrance Institute ‘**SCHOOL OF SCIENCE**’, Agartala, Tripura, India, (Institute for IIT-JEE/AIEEE/CBSE-PMT/NDA/NERISTWBJEE/TBJEE) – For a period of **02 years 02 months** (w.e.f. 8.01.2001 to 27.03.2003).
2. **Post Graduate Teacher of Chemistry** of Manughat H. S. School, Govt. of Tripura, Tripura, India - for a period of **3 years 10 months** (w.e.f. 10-01-2006 to 12-11-2009).
3. **Former HOD cum Assistant Professor in Chemistry**, Govt. Degree College, Dharmanagar, Tripura(N), Tripura, India – for a period of more than 02 Years (w.e.f. 10-01-2011 to 03-10-2013).
4. **An External Examiner in B.Sc.(TDC -Pass) Part-I, Part-II & Part-III Practical Examination** at Ram Krishna Mahavidhyalay, Kailashahar on April 2011.
5. **Judge in the Sub-division Level Science Seminar-2011**, Dharmanagar, Tripura(N), organized by Dept. of Science & Technology, Tripura on 23-08-2011.
6. **An External Examiner in B.Sc.(TDC-Hons) Part-I, Part-II & Part-III Practical Examination** at Ram Krishna Mahavidhyalay, Kailashahar on April 2012.
7. **Tripura University Question Setter and Examiner** (2012-2019).
8. **M.B.B. Universty Question Setter and Examiner** (2019-2023).
9. **Organizer, several One-day Symposia in Chemistry and Theoretical Chemistry.**
10. **Principal Investigator of one SERB, DST, New Delhi - Sponsored projects.**
11. **Evaluator Co-ordinator, All Tripura info. Mega Quiz-2013, 2014, 2015 Venue-Rabindra Sata Barshiki Bhawban dated 8th July-2013, 7th Sept-2014, 20th Sept 2015.**
12. **Assistant Professor . Department of Chemistry, Bir Bikram Memorial College (BBMC), College Street, Agartala, Tripura (W) w.e.f. 13th June 2019 to Present.**
13. **Attended as a Resource person and delivered speech on ‘International Year of the Periodic Table (IYPT-2019)’ in the 47th State Level Science, Mathematics and Environment Exhibition, dated Dec 02, 2020 organized by the SCERT, Govt. of Tripura.**
14. **Attended District Level Science Seminar-2022 as Judge**, organized by District Education Office, West District, Venue: DIET HALL, Kunjaban, dated September 23, 2022, Time: 11-4pm.
15. **Attended 49th State Level Science Seminar-2022 as Judge**, organized by SCERT, Govt. of Tripura, Venue: Umakanta Academy, dated Jan 08, 2023, Venue: Umakanta Academy H.S. School, Agartala. *Time: 11-4pm.*
16. **KV No. 1 Kunjaban – Present as Judge in the 50th Jawaharlal Nehru National Science Mathematics & Environment Exhibition and Seminar JNNSMEE- 2022-23 and 50th Rashtriya Bal Vaigyanic Pradarshini (RBVP) for students of all the KVs of Tripura Cluster on 21.04.23 at 11.00 a.m – 4.30pm.**
17. **Question Setter, MBBU (IMD Chemistry / TDP (Hons/GEN), Sem-I to Sem VI Exam) since 2019 to present.**
18. **Present as Judge in the District Level Science Seminar-2023 Organized by the District Education Office, Agartala, West Tripura dated Sept 12 2023.**
19. **Present as Judge in the State Level Science Seminar-2023 organized by the SCERT Department, Govt. of Tripura, dated Sept 20 2023.**
20. **Present as Judge in the 51st Rajyastariya Bal Vaigyanik Pradarshani. Feb 2-3, 2024, Organized by the SCERT, Govt. of Tripura.**
21. **Present as Resource Person in the National Seminar organized by the G.D.C. Dharmanagar along with Indian Science Congress Association and discussed ‘Nuclear Power Production from Th-232’ within the ‘Prototype Fast Breeder’ – Honourable PM of India Shri Narendra Modi on 4th March 2024 came to Kalpakkam, Tamil Nadu to initiate the core loading in the Prototype Fast Breeder Reactor.**

Administrative Experiences:-

1. **Observer of NTA (National Testing Agency) at NEET-2023 dated May 07, 2023.**
2. **Convener, Expert Committee, Integrated M.Sc. in Chemistry, M.B.B. University w.e.f. May 11, 2020 to till March 2023.**
3. **Member, IQAC cell, Tripura University (A Central University), Suaryamaninagar, Tripura for two yrs w.e.f. May 2020 to May 2022.**
4. **Nodal Officer NIRF, Bir Bikram Memorial College, Agartala, Tripura, India (Dec 08, 2020 – present).**
5. **Former HOD cum Assistant Professor . Department of Chemistry, Ramthakur College, Agartala, Tripura (W) w.e.f. 5th Oct-2013 to 12th June 2019 – For a period of 05 years 08 months.**
6. **Co-ordinator, Placement Cell, Ramthakur College, Agartala, West Tripura (2018-19).**
7. **Joint Secretary, Teacher's Council, Ramthakur College, Agartala, Tripura(W), India (July 2014-)**
8. **Course Coordinator FOR PRE-RECRUITMENT COACHING FOR UN-EMPLOYED ST YOUTHS FOR VARIOUS COMPETITIVE EXAMINATIONS and JEEE UNDER SPECIAL PACKAGE FOR THE YEAR 2015-16 under ST Welfare department, Govt. of Tripura for the West District and Sipahijala District.**
9. **Head, Dept. of Chemistry, Govt. Degree College, Dharmanagar, Tripura(N), Tripura, India – for a period of more than 01 Year (w.e.f. 23/08/2011 to till now).**
10. **Senior Scientific Officer (Chemical Discipline) Group A Gazetted, Tripura State Forensic Science Laboratory, Home Dept., Govt. of Tripura, Tripura, India – For a period of 09 Months (w.e.f. 26-04-2010/06-01-2011).**
11. **Observer of TBJEE (Tripura Board of Joint Entrance Examination) at TBJEE-2024 dated May 02, 2024.**

ACADEMIC SEMINAR/ CONFERENCE/ WORKSHOP/ WEBINAR/ SCIENCE TALKS/ TRAINING (NATIONAL & INTERNATIONAL)

1. **National Symposium on “ IMPACT OF CHEMISTRY ON LIFE AND SOCIETY”,** organized by Dept. of Chemistry, Tripura University, Tripura, India, Oct. (1-3), 2004. (PP)
2. **Teacher's Training Programme Under SSA,** organized by Education Dept, Govt. of Tripura, 17-01-06 to 27-01-06 -10 days.
3. **Training on Examination of FICN** organized by TSFSL, Govt. of Tripura, Tripura, w. e. f. 10-05-2010, – 27 days.
4. **State Level Seminar on “Frontier Areas of Chemistry”,** organized by Dept. of Chemistry, Tripura University, Tripura, India, 3rd Sept, 2010.
5. **International Conference on Emerging Areas of Chemistry,** organized by Dept. of Chemistry, Tripura University, Tripura, India, Jan (12-14), 2011. (PP)
6. **One Day Awareness Programme On Chemical weapons Convention (CWC),** 13th March-2011, organized by Dept. of Chemistry, Tripura University, Tripura, India.
7. **Career Counselling Workshop,** organized by UGC Cell, Govt. Degree College, Dharmanagar, Tripura North, Tripura, India, Feb (19-21), 2011.
8. **Tripura Science Congress,** organized by Tripura State Council For Science and Technology, Govt. of Tripura, Sept 8-9, 2011(OP).
9. **15th National Conference On Surfactants, Emulsions and Biocolloids,** organized by Indian Society For Surface Science And Technology (ISSST), Kolkata-700 032 and Dept. of Chemistry, T.U., Tripura, Dec (27-29), 2011. (OP)
10. **Invited Speaker at District Level Seminar, on the topic ‘Vivekananda and Recent India’** Town hall, Dharmanagar, organized by Dept. of Higher Education, Govt. of Tripura, 18th Aug-2012.
11. **National Seminar on Green Chemistry and Nano science Theory and Applications,** Organized by Dept. of Chemistry, NIT, Agartala and Dept. of Chemistry, MBB College, Agartala, Tripura, July (20-21)- 2012 (PP).
12. **50th Annual Convention of Chemists hosted by Department of Chemistry, Panjab University, Chandigarh – 160 014, held during December 04 – 07, 2013, Sponsored by Royal Society of Chemistry, Cambridge, UK, Reliance Industries Limited, Mumbai, Co-Sponsored by DST, New Delhi, CSIR, New Delhi and UGC, New Delhi and Organised by Indian Chemical Society, 92, Acharva Prafulla Chandra Road, Kolkata – 700 009.**
13. **Quality Enhancement in Higher Education in Northeast India: Challenges and Opportunities,** National Seminar, 25th & 26th February 2017 organized by IQAC, Govt. Degree College, Dharmanagar, North Tripura sponsored by NAAC.
14. **Science and Technology for National Development, National Seminar, 23rd March 2017,** organized by Govt. Degree College, Dharmanagar, North Tripura in collaboration with ISCA, Kolkata Chapter.

15. **National Seminar On Reaching the Unreached Through Science And Technology** Sponsored by ISCA, Dated 10th and 11th April 2018, Govt. Degree College, Dharmanagar, Organized by the ISCA Dharmanagar Chapter & Govt. Degree College, Dharmanagar.
16. **International Webinar** on “Pedagogical Approaches to Combat Covid-19 Pandemic: Issues & Challenges”, Organized by Dept. of Chemistry, Govt. Degree College, Dharmanagar in association with NAAC, Govt. Degree College, Dharmanagar & IGNOU Study Centre (2602), Govt. Degree College, Dharmanagar, July 24 & 25, 2020.
17. **One Week Online Workshop On ‘GOODS AND SERVICES TAX (GST)’**, Organised by Ramthakur College, Agartala, Tripura, 22nd to 28th July 2020.
18. **ACS Webinars** on ‘Research Projects: Conceptualisation to Implementation’, Aug 4, 2020, organized by the American Chemical Society (ACS), US.
19. **ACS Science Talks** on ‘Investigating Phase Behavior of Suspensions of Nano-Discs Using Rheology’, 7 August 2020, organized by the American Chemical Society (ACS), US.
20. **ACS Science Talks** on ‘Exploring the Great Unknown: Characterization of Complex Environmental Mixtures’, Aug 12, 2020, organized by the American Chemical Society (ACS), US.
21. **ACS Science Talks** on ‘Organic Chemistry with Proteins Creating Opportunities in Biology and Medicine’, Aug 14, 2020, organized by the American Chemical Society (ACS), US.
22. **ACS Science Talks** on ‘I-III-VI2 Nanocrystals for Optoelectronic Devices’, Aug 21, 2020, organized by the American Chemical Society (ACS), US.
23. **ACS Science Talks** on ‘Molecular Engineering: Small Peptides Mimicking Proteins’, Aug 26, 2020, organized by the American Chemical Society (ACS), US.
24. **ACS Science Talks** on ‘Unravelling Tiny Monstrous Organic Aerosols: Key to Achieve Blue Skies and Human Health’, Aug 28, 2020, organized by the American Chemical Society (ACS), US.
25. **National Webinar**, on ‘National Education Policy-2020’, Aug 20-21, 2020 organized by Bir Bikram Memorial College (BBMC), Agartala, Tripura, India.
26. **ACS Webinars** on ‘Adapting Well Known Chromatographic Techniques for the Analysis of Biomolecules’, September 01, 2020, organized by the American Chemical Society (ACS), US.
27. **ACS Science Talks** on ‘Reversible Chemical Tools to Capture Life in Action’, September 04, 2020, organized by the American Chemical Society (ACS), US.
28. **ACS India Virtual Classroom** on ‘Résumé Development: Marketing Your Brand for an Industrial Chemistry Position’, September 29, 2020, organized by the American Chemical Society (ACS), US.
29. **‘Science Connect: Langmuir’**, 10-12 October 2020, organized by the American Chemical Society (ACS), US.
30. **‘DST & ACS Virtual Workshop’**, 30 October 2020, organized by the Department of Science & Technology, Govt. of India and American Chemical Society (ACS), US.
31. **ACS Webinar** on ‘Managing the Life of an Early Career Researcher’, November 11, 2020, organized by the American Chemical Society (ACS), US.
32. **ACS Science Talks** on ‘Ultra-sensitive sensors that can operate in complex environments’, 4 November 2020, organized by the American Chemical Society (ACS), US.
33. **ACS Science Talks** on ‘Perceiving and delineating the epigenetic modifications by chromatin readers in human diseases’, 6 November 2020, organized by the American Chemical Society (ACS), US.
34. **ACS Science Talks** on ‘Topochemical Azide-Alkyne Cycloaddition (TAAC) reaction for the syntheses of biopolymer mimics’, 13 November 2020, organized by the American Chemical Society (ACS), US.
35. **ACS Science Talks** on ‘Oxidative damage in proteins’, 22 Jan 2021, organized by the American Chemical Society, US.
36. **ACS Science Talks** on ‘Covalent Organic Frameworks and the Morphology [0-1-2-3] Landscape’, 29 Jan 2021, organized by the American Chemical Society (ACS), US.
37. **ACS Science Talks** on ‘Multimetallic Nanocrystals by Design’, 19 Feb 2021, organized by the American Chemical Society, US.
38. **ACS Science Talks** on ‘Designing a Green Chemistry Future’, 26 March 2021, organized by the American Chemical Society (ACS), US.
39. **ACS Science Talks** on ‘Materials Innovation for Better Living’, 16 April 2021, organized by the American Chemical Society (ACS), US.
40. **ACS Science Talks** on ‘Dye-Sensitized Electron Transfer’, 23 April 2021, organized by the American Chemical Society (ACS), US.
41. **ACS Science Talks** on ‘Utilizing Light for Environmental Applications: Photo(electro)catalysis’, 28 May 2021, organized by the American Chemical Society (ACS), US.
42. **ACS (American Chemical Society) Science talk** in 2021 dated Aug 13, Sept 17, Oct 08, 2021.
43. **ACS (American Chemical Society) Seminar** dated Oct 18-19, 2021.
44. **ACS (American Chemical Society) Science talk** in 2022 dated Jan 28 and Sept 16 2022.
45. **ACS Spring, 2023, March 26-29, 2023.**

Training:

FACULTY DEVELOPMENT PROGRAM (FDP) / Workshop: i) One Week (07 days) 'Faculty Development Program' on 'Statistical Analysis in Academics and Research', Organized by: International Journal of Microbial Science (IJMS) In Collaboration with: Sushila Shankarrao Gadhave Mahavidyalaya, Khandala, Dist-Satara, Mumbai, Nov 01-07, 2020. Marks obtained: 70%. ii) Induction Training of Faculty Programme, under PMMNMTT Scheme, MHRD, Govt. of India, Date: 1-30 Nov 2017 – 30 days, Organizer: Faculty Development Centre (FDC), Tripura University, Tripura, India. Grade Obtained: A⁺. iii) One Week Online Workshop On 'GOODS AND SERVICES TAX (GST)', Organised by Ramthakur College, Agartala, Tripura, 22nd to 28th July 2020 iv) 5-day International workshop on 'Academic Writing and Publishing', Organized by the Central Library and Dept. of Library and Information Science, T.U dated Jan 17-21, 2022.

REFRESHER COURSE: i) Two-week Refresher Course on "Rural Development, New Media and Social Change". Date: 14 days (01/07/2019 to 14/07/2019), Organizer: Faculty Development Centre (FDC), Tripura University, Tripura, India. Grade Obtained: A ii) Two-week online Refresher Course on: "Teachers on Using ICT for Online Teaching Learning Process", Date: 14 days (01/12/2020 to 14/12/2020), Organizer: Faculty Development Centre (FDC), Tripura University, Tripura, India in collaboration with MHRD, Govt. of India. Grade Obtained: A⁺. iii) Two-week offline Refresher Course on: "Making Teaching Effective", Duration: 14 days (15/03/2021 to 28/03/2021), Organizer: Faculty Development Centre (FDC), Tripura University, Tripura, India in collaboration with MHRD, Govt. of India. Grade Obtained: A⁺.

EDITOR/EDITORIAL ADVISORY BOARD MEMBER:

i) 'Cambridge Scholars publishing', historic Lady Stephenson Library, Newcastle upon Tyne, United Kingdo (2019 - 2023)

Link: <https://www.cambridgescholars.com/editors/item/2568>

ii) 'WORLD JOURNAL OF CHEMICAL EDUCATION', Science and Education Pub., USA. (Dec 2013 -) (Link: <http://www.sciepub.com/journal/WJCE/EditorialBoard>) (2013-)

REVIEWER:

1. 'INDIAN JOURNAL OF CHEMISTRY - SEC A', CSIR-NISCAIR, New Delhi, India (2020-)
2. 'INORGANIC CHEMISTRY COMMUNICATIONS', ELSEVIER – 1st Reviewer
JOURNAL, USA, ISSN 1387-7003, Impact Factor 1.974 (2010), since 2010
3. 'JOURNAL OF CO - ORDINATION CHEMISTRY' – TAYLOR & FRANCIS 1st Reviewer
4. 'Journal of Indian Chemical Society'- A.P.C., Road, Kolkata, India, since 2013.
5. 'QScience Connect', Qatar, Asia (Since-2013).
6. SAGE, Publication, 2022.

HONORARY DEGREE / FELLOWSHIP/MEMBERSHIP OF PROFESSIONAL BODIES:

1. Honorary Degree of Doctor of Science (D.Sc.) in Chemical Science, Division for Certification and Accreditation, International Agency for Standards and Ratings, US (Nov 8, 2019)
2. Fellow, Directorate of Chemical Science, IASR, USA (Life Time 2nd Oct 2018 -)
3. American Chemical Society (ACS) (Invited, USA) (06-12-2013-)
4. 'Indian Chemical Society', 92, A.P.C. Road, Kolkata-700009 – Senior Fellow / 7158 (2010 -).
5. 'Indian Academy of Forensic Science', 30, Gorachand Road, Kolkata-700014 – A-029 (Life Member) (2011-).
6. 'Indian Science Congress Association', 14, Dr. Biresh Guha Street, Kolkata – 700017, India - L18176 (2011-) (Life Member).
7. IQAC, Member, Tripura University, Agartala, Tripura, India (May 01, 2020-) (Link: <https://www.tripurauniv.ac.in/UploadFile/AdminPanel/IQAC/88f6c7bb-55ca-41d3-9c51-f152d61f67db.pdf>).

8. Professional Member of Institute of Scholars (InSc), Oct-2020, Institute of Scholars, Department of Awards, #1338, 2nd Cross, 7th Block Sir M V Layout, Muddhinapalya Bengaluru-560091, Karnataka, India, Email: awards@insec.in, Phone: +91-7619574868.

Proposed 26 Time Economic Innovative Teaching Methodologies and 40 new formulae in the Field of Chemical Education:

1. **New Innovative Methods for prediction of hybridization State in a very short time.**
2. **New innovative methods for prediction of bond order of mono and atomic molecules, ions and also acid radicals in a very short time.**
3. **New innovative methods for determination of IUPAC nomenclature of spiro and bicyclo compounds in Organic Chemistry.**
4. **New innovative methods for determination of spin multiplicity, spin state and Magnetic properties of diatomic heteronuclear molecules or ions in a very short Interval of time.**
5. **New Innovative methods for prediction of Bond order of mono and diatomic molecules or ions having total number of (1-20)e's in a very short time.**
6. **A rapid and innovative method for the identification of aromatic and anti-aromatic nature of organic compounds.**
7. **A rapid and innovative method for the easy prediction of Magnetic behavior of homo and hetero nuclear mono and diatomic molecules or ions without MOT.**
8. **Simultaneous Equations as a Tool in the Spectrophotometric Analysis of Two Non-interacting Substances in a Binary Mixture: Senior Undergraduate Physical and Physical-Organic Chemistry Laboratory Experiment.**
9. **New methods for prediction of Bond order of mono and diatomic homo and hetero nuclear molecules or ions with (1-20)e's and Oxide based acid radicals - An innovative approach (Review article)**
10. **New Methods for the prediction of Magnetic Moment of homo and hetero nuclear mono and diatomic molecules or ions without MOT-A Rapid Innovative Approach**
11. **Simple Thinking Makes Chemistry Metabolic and Interesting-A Review Article**
12. **Rapid calculation of the number of π -bonds, σ -bonds, single and double bonds in aliphatic unsaturated open chain and cyclic olefinic hydrocarbons.**
13. **Rapid calculation of the number of π -bonds, σ -bonds, single and double bonds in aliphatic unsaturated open chain and cyclic olefinic hydrocarbons.**
14. **Innovative and Time Economic Pedagogical Views In Chemical Education – A review Article.**
15. **Association Behavior of Mono, Di and Tri-hydric Alcohols with Three Carbon Skeleton in a Straight Chain**
16. **Time Economic Innovative Methodology on the Prediction of Hybridization State of Heterocyclic Compounds**
17. **Chemical Bonding: Time Economic Innovative Pedagogies - A Review Article**
18. **Lone Pair Electron Discriminate Hybridization with Aromatic and Anti Aromatic behavior of Heterocyclic Compounds - Innovative Mnemonics**
19. **Innovative Mnemonics in Chemical Education – A Review Article**
20. **Lone Pair of Electrons Discriminate Hybridization with Aromaticity in the Heterocyclic Compounds - Innovative Mnemonics**
21. **A Review of Time Economic Innovative Mnemonics in Chemical Education**
22. **Review of Innovative Mnemonics for Inorganic and Organic Chemical Education**
23. **Innovative Mnemonics in Chemical Education – Review Article**
24. **'Teaching Science in 21st Century' – Review Article.**
25. **Predicting the hybridization state: a comparative study between conventional and innovative formulae.**
26. **IUPAC Nomenclature of Higher Alkanes – Innovative Mnemonics**
27. **Classification of Negative Charge Discriminate Hybridization with Aromatic and Anti-aromatic Behavior of Organic Compounds - Innovative Mnemonics**
28. **Metal Ions Separation Via Paper Chromatography: Enhanced Methods Using Eluting Solutions**

ENDORSEMENT BY DIFFERENT ACADEMICIANS FROM THE DIFFERENT INDIAN UNIVERSITIES AND IIT'S:

1. 'Jadavpur University', Kolkata, W.B., India. (FIVE STAR)
2. 'Calcutta University', Kolkata, W.B., India. (FIVE STAR)
3. 'Osmania University', Hyderabad. (FIVE STAR)
4. 'University of Hyderabad', Hyderabad (FIVE STAR)
5. 'North-Eastern Hill University (NEHU)', Shillong, Meghalaya, India. (FOUR STAR)
6. 'Kalyani University', West Bengal, India. (THREE STAR)
7. 'Burdwan University', Kolkata, W.B., India. (B⁺⁺)
8. 'Tripura Central University', Tripura, India (B)
9. 'I.I.T., Kanpur', India. (RANK-01)
10. 'I.I.T., Kharagpur', West Bengal, India (RANK-04)
11. 'I.I.T., Guwahati', Assam, India. (RANK-06)

APPROVED BY THE DIFFERENT INTERNATIONAL BODIES

1. Stanford University
2. University of California, Davis, US
3. Vinh University, Vietnam
4. Education Resources Information Center (ERIC), Institute of Education Sciences (IES), United States Department of Education.
5. American Chemical Society, NY, US.
6. Federation of African Societies of Chemistry (FASC), Ethiopia, Africa.
7. The City College of New York, US
8. British Library, London, UK.

Press Release (2012-2021)
(National Daily / News Web Portal)

SL. No.	National Daily / News Web Portal	Published Date	Publication Times
1.	'The Telegraph', Calcutta, India (National Daily)	2 nd September-2012, 6 th March-2013 8 th July-2013, 8 th December-2013 14 th February-2014, 3 rd September- 2015, 22 nd February-2016	07
2.	'The Times of India', Calcutta, India (National Daily)	29 th September-2012	01
3.	'United News of India' (UNI), India (National Web)	25 th September-2012 23 rd November-2019, 10 th May 2021	03
4.	'Webindia123', India (National Web)	25 th September-2012	01
5.	'NorthEast Calling', India (National Web)	2 nd September-2015	01
6.	Zee News	9 th July 2021	01
G/T Publications in the English National Daily & News Web Portal: 14 times			

Press Release (2013-2018)
(International News Web Portal)

SL. No.	International News Web Portal	Published Date	Publication Times
1.	USA News Corp (International Web)	12 th November-2018	01
2.	'The Indian EYE. NET', USA (International Web)	21 st October-2015	01
3.	'IR Thoughts', USA (International Web)	18 th September-2015 20 th December-2018	02
4.	'World News.com', USA (International Web)	8 th December-2013 14 th February-2014 3 rd September-2015	03
G/T Publications in the International News Web Portal: 07 times			

Press Release (2012-2024)
(Bengali & English State Daily)

SL. No.	State Daily	Published Date	Publication Times
1.	'Dainik Sambad', Agartala, Tripura (State Bengali Daily)	6 th March-2012, 4 th September-2012, 1 st April-2013, 26 th December-2013, 22 nd August-2015, 19 th December-2015, 6 th April-2018, 9 th August-2018, 14 th November-2018, 22 nd November- 2018, 4 th September-2019, 9 th January-2020, 10 th August-2020.	13
2.	'Ajker Fariad', Agartala, Tripura (State Bengali Daily)	4 th September-2012, 12 th September- 2012, 6 th March-2013, 8 th July-2013 1 st September-2015, 17 th December- 2015, 9 th August-2018, 14 th November- 2018, 22 nd November-2018, 24 th September-2019, 28 th November- 2019, 11 th August-2020.	12
3.	'Ajkal Tripura', Agartala, Tripura (State Bengali Daily)	15 th September-2012, 7 th October-2012 9 th March-2013, 21 st August-2015 17 th December-2015.	05
4.	'Tripura Times', Agartala, Tripura (State English Daily)	5 th October-2012, 25 th November-2018 26 th December-2018, 22 nd February- 2019, 27 th July-2019, 20 th August-2019, 18 th September-2019, 23 rd October- 2019, 23 rd November-2019, 8 th August-2020, Oct 16 2022, Nov 08, 2023, Feb 23, 2024.	13
5.	'NE Colors', Agartala, Tripura (State English Daily)	8 th August-2018, 19 th August-2018, 30 th September-2018, 12 th November- 2018, 21 st November-2018, 27 th December-2018, 22 nd February- 2019, 27 th July-2019, 20 th August-2019, 22 nd September-2019, 23 rd November- 2019, 28 th November-2019, 11 th August-2020, 18 th Dec 2020, 15 th Oct 2022, Nov 08, 2023	16
6.	'SYANDAN', Agartala, Tripura (State Bengali Daily)	20 th March-2013, 18 th August-2018	02
7.	'ICAT- GOVT. OF TRIPURA', (State Govt. Daily)	4 th October-2012, 16 th December-2015	02
8.	'Tripura Today', Govt. of Tripura Eng. Newsletter, Tripura, India	August 2013, Vol-4, Issue-4	01
9.	'Tripura Prabaha', Kailashahar, Tripura. (State Bengali Weekly)	15 th September-2012	01
10.	'GENERAL KNOWLEDGE ESSENTIALS', blogspot.in	20 th March-2014	01
G/T Publications in the Bengali & English State Daily: 66 times			

Press Release (2012-2024)
(State News Web Portal)

SL. No.	State News Web Portal	Published Date	Publication Times
1.	'Tripurainfo.com', Agartala, Tripura (State News Web Portal)	<p>4th September-2012, 29th September-2012, 8th June-2013, 2nd July-2013, 8th July-2013, 20th July-2013, 5th August-2013, 8th December-2013, 10th December-2013, 21st December-2013, 25th December-2013, 30th January-2014, 14th February-2014, 26th February-2014, 23rd July-2014, 31st July-2014, 10th June-2015, 31st July-2015, 17th August-2015, 25th August-2015, 8th September-2015, 14th October-2015, 22nd February-2016, 17th October-2016, 20th June-2017, 30th August-2017, 20th October-2017, 4th April-2018, 8th April-2018, 7th August-2018, 13th August-2018, 22nd August-2018, 22nd August-2018, 28th September-2018, 9th October-2018, 12th November-2018, 20th November-2018, 25th December-2018, 21st February-2019, 26th July-2019, 19th August-2019, 21st August-2019, 17th September-2019, 24th October-2019, 12th November-2019, 14th November-2019, 23rd November-2019, 6th August-2020, 12th Dec 2020, 14th March 2021, 8th May 2021, 11th July 2021, 14th Oct 2022, 16th Nov 2022, 14th Jan 2023, 26th March 2023, 26th Sept & Nov 07, 2023, Dec 18 2023, Feb 05 2024, May 02 2024</p>	61
2.	'newsupdate of tripura.com' (State News Web Portal)	<p>4th April-2015, 31st July-2015, 24th August-2015, 3rd September-2015, 8th September-2015, 7th October-2015, 16th December-2015, 20th June-2017, 17th July-2017, 23rd October-2017, 4th April-2018, 8th August-2018, 12th November-2018, 21st November-2018, 20th August-2019, 22nd September-2019, 26th November-2019, 8th August-2020, 13th Dec 2020</p>	19
G/T Publications in the State News Web Portal: 80 times			

Interview on Innovation at National / Local News Chanel, Tripura India With Date:

<u>Name of News Chanel</u>	<u>Date</u>
1. <u>'Prime Focus'</u> , Agartala, Tripura	05/11/2012
2. <u>'Head Lines Tripura'</u> , Agartala, Tripura	05/11/2012
3. <u>'Akashbani Kailashahar'</u> , Unakoti Tripura	08/11/2012
4. <u>'Tripura Today'</u> , A Govt. of Tripura News Letter, ICAT Dept., Agartala, Tripura.	20/08/2013
5. <u>Prasar Bharati (DDK), Agartala</u>	14/09/18
6. <u>International Agency for Standard and ratings (IASR)</u>	08/11/2019
7. <u>Wiki Bios, UK (from Wikipedia)</u>	04/04/2019
8. <u>Prasar Bharati (DDK), Agartala</u>	26 th Nov, 27 th Nov 2020, Aug 25, 2022

AWARD RECEIVED (2023, 2022, 2021, 2020, 2019, 2018 & 2002):

1. Achieved InSc 'Research Excellence Award-2020', Oct-2020, **Institute of Scholars**, Department of Awards, #1338, 2nd Cross, 7th Block Sir M V Layout, Muddhinapalya Bengaluru-560091, Karnataka, India, **Email:** awards@insc.in, **Phone:** +91-7619574868.
2. Achieved 'Best Researcher Award' @ International Scientist Awards on Engineering, Science and Medicine, organized by the VDGGOOD Professional Association, India, **04th & 05th July 2020**, Coimbatore, India.
3. Received Honorary Degree of Doctor of Science for Outstanding Scientific Contribution in Chemical Science from the Division for Certification and Accreditation, International Agency for Standards and Ratings (IASR), USA, **Email:** plojindexing@gmail.com **dated Nov 8, 2019.**
4. International Award received - World Championship-2018 in Chemical Education (Innovative Mnemonics). The World Championship is organized by International Agency for Standards and Ratings (IASR) at international level. World Champion Dr. Arijit Das is now recognized as 'Father of modern Chemical Education (Innovative Mnemonics)' and 'life time Fellow, Directorate of Chemical Science, IASR', USA.
5. Award received as 'P M L P M R F' - 1st Fellow from Tripura University, Tripura, India- **Duration two(02) years (2002-2004).**
6. **India Prime Quality Education Awards 2021 (Innovation in Chemical Education)**, organized by the FoxClues Marketing & Research Organizations, **Bangalore, Karnataka, India, info@foxclues.com.**
7. **India Prime Author Awards 2021 (Innovation in Chemical Education)**, organized by the FoxClues Marketing & Research Organizations, **Bangalore, Karnataka, India, info@foxclues.com.**
8. **100 Powerful Personalities 2022**, organized by the Glantor X, Frontline Media, India, **info@glantorx.com**
9. **BHARAT EXCELLENCE AWARD 2023**, organized by the Friendship Forum, New Delhi, India.

Honor received from Different Departments and Societies For Invention of New dimensions in Chemistry:

- 1. Invitation received from the prestigious ‘American Chemical Society’(ESTD-135 yrs ago) on 29-11-2013 via postal mail along with their nomination letter bearing Fellow nominated no FN-12047213025 and Candidate Promo Code 1513JA601 to join the ACS network as a member. I joined to the ACS network as ACS member since 06-12-2013.**
- 2. Felicitated with ‘Certificate of Honour’ by Honble Chief Minister, Govt. of Tripura, Mr.Manik Sarkar on behalf of tripurainfo.com @ Agartala Town hall, Agartala, Tripura (w), Tripura, India, dated 7th July-2013.**
- 3. Felicitated with ‘Certificate of Honour’ by Honble Higher Education Minister, Govt. of Tripura, Mr. Anil Sarkar @ Govt. Degree College, Dharmanagar, North Tripura, Tripura, India, dated 27th Sept-2012.**
- 4. Felicitated with ‘Certificate of Honour’ by Department of Chemistry, Govt. Degree College, Dharmanagar, North Tripura, Tripura, India, dated 12-Sept 2012.**
- 5. Felicitated by TCTA Unit Cell, Department of Chemistry, Govt. Degree College, Dharmanagar, North Tripura, Tripura, India dated 25-Sept 2012.**
- 6. Felicitated with ‘Certificate of Honour’ by ‘Saktisangha Club’ , Kailashahar, Unakoti, Tripura, in the Inauguration day of 50th Durga Puja dated 19th – Oct 2012.**
- 7. Felicitated with ‘Certificate of Honour’ by ‘Eikatan Club’, Kailashahar, Unakoti, Tripura, in the Inauguration day of Kali Puja dated 12th – Nov 2012.**
- 8. Honour received from the Ramthakur College (NAAC Gr.-B), Agartala, Tripura (West), Tripura, India on behalf of the Principal and other faculty members of the College on dated 01-01-2014 on the innovation of 14 New teaching methodologies including 34 completely new formulae in the Chemistry World and also on the Invitation along with nomination received from the Prestigious American Chemical Society, USA to join the impressive ACS network.**
- 9. Felicitated with ‘Certificate of Honour’ Organized by Book Fair Committee, Kailashahar on 18-05-2018 for my 'Innovational Research in the Field of Chemistry' - Felicitated by Mr.Nitish De , Convener,Book Fair Committee, Kailashahar – 2018.**
- 10. Felicitated with ‘Certificate of Honour’ by the College of Astrology, Govt. of Tripura, With the title of ‘Jyotish Vigyani Bandhu’ at Press Club Agartala dated 11th Aug 2018.**
- 11. Felicitated with ‘Certificate of Honour’ in the 57th Teacher’s day on dated 5th Sept 2018 at Press club, Agartala, Organized by the Lions Club Agartala, Rajdhani (Dist:322G).**
- 12. Invited and Felicitated as a Keynote speaker in the program of ‘World Ozone Day-2018’ organized by the Department of Science, Technology and Environment, Govt. Of Tripura dated 28th Sept 2018.**
- 22. Received Felicitated from the National Figure Major General G.D.Bakshi, SM,VSM dated 8th Oct 2018 at Rabindra Bhavan, Agartala in the celebration of Platinum Jubilee of Azad Hind Government established by Netaji Subash Chandra Bose, organized by the ‘Elite Society’ Agartala, Tripura, India.**
- 23. Invited and Felicitated as a Keynote speaker in the program of ‘Talk Show on Innovation in Chemical Education’ dated 8th Nov 2018 organized by the Kailashahar Municipal Council and Education Department, Govt. of Tripura at Unakoti Kalakhestra, Kailashahar, Unakoti Tripura.**
- 24. Felicitated with ‘Certificate of Honour’ in the celebration of ‘National Press Day-2018’ dated 16th Nov 2018, Organized by the Tripura Journalist Union, Unakoti District Committee, at Unakoti Kalakhestra, Kailashahar, Unakoti Tripura.**

25. **International Agency For Standards and Ratings (IASR)**, certified me with the title 'Father of Modern Chemical Education (Innovative Mnemonics)' and 'Life Time Fellow of Directorate of Chemical Science, IASR ,USA' among 500 worldwide eminent scientists - 2018 and won the Award 'World Championship 2018 in Chemical Education (Innovative Mnemonics)' among World's 500 Most Influential Experts in Chemical Science for the Year 2018 on Earth dated 2nd Oct 2018.
26. **Invitation as Committee Member in the 2nd International CMER Conference (Chemistry, Materials and Energy) held on Guangzhou, China**, dated October 11-13, 2019 received from the committee of CMER 2019, China dated 23rd July 2019 and joined 26th July 2019 (Link: <https://www.keoaeic.org/CMER2019/committee>).
27. **Dr. Das conferred Honv. D.Sc. in Chemical Science from International Agency for Standards and Ratings (IASR) on Nov 8, 2019.**
28. **Dr. Das invited and delivered his interactive speech (Duration 1Hr) on 'International Year of the Periodic Table (IYPT-2019)' at 47th State Level Science, Mathematics and Environment Exhibition 2019-20, Agartala, Tripura** dated Dec 02, 2020, organized by the SCERT, Govt. of Tripura.
YouTube Link: <https://www.youtube.com/watch?v=pSsrODS63Ko>
29. **Achieved 'Best Researcher Award' in the 'International Scientist Awards on Engineering, Science and Medicine', organized by the VDGOD Professional Association, India, 04th & 05th July 2020, Coimbatore, India.**
30. **Achieved InSc 'Research Excellence Award-2020', Oct-2020, Institute of Scholars**, Department of Awards, #1338, 2nd Cross, 7th Block Sir M V Layout, Muddhinapalya Bengaluru-560091, Karnataka, India, Email: awards@insc.in, Phone: +91-7619574868.

LIST OF PUBLICATIONS (2002-2024):-

1. "Synthesis and characterization of ionic heterobimetallic complexes of Ni(II), Cu(II), Zn(II) and Cd(II) ions containing nitrogen and sulphur donors."
M.K.Singh, R.Laskar & A.Das, *Indian Journal of Chemistry*, 41A, Nov 2002, p 2282. (IF-0.67)
2. "Synthesis and structural characterization of mixed ligand complexes of nickel(II) with 1,1-dicyanoethylene-2,2-dithiolate and some nitrogen donors"
Mahesh K.Singh, Arijit Das and Bijaya Paul, *Trans. Metal Chem*, Sept 2005, 30, p 655. (IF-1.7)
3. "Synthesis and structural characterization of mixed ligand complexes of nickel(II) with 1-cyano-1-carboethoxyethylene-2,2-dithiolate and some nitrogen donors"
Mahesh K.Singh, Arijit Das and Bijaya Paul, *Trans Metal Chem*, Sept 2007, 32, p 732. (IF-1.997)
4. "Synthesis and characterization of mixed ligand complexes of Zn(II) and Cd(II) with 1,1-dicyanoethylene-2,2-dithiolate and some nitrogen donors"
M. K.Singh, A. Das, B. Paul and R. Laskar, *J.Ind.Chem.Soc.*, May 2008, 85, p 485. (IF-0.384)
5. "Synthesis and characterization of mixed ligand complexes of Zn(II) and Cd(II) with 1-cyano-1-carboethoxyethylene-2,2-dithiolate and some nitrogen donors"
M. K. Singh, A. Das, B. Paul and R. Laskar, *J. Ind. Chem. Soc.*, Feb 2009, 86,P-143.
6. "Synthesis and characterization of mixed ligand complexes of cobalt(II) ion with some nitrogen and sulphur donors"
Mahesh K. Singh, Arijit Das and Bijaya Paul, *Journal of Co-ordination Chemistry*, 62(16), Aug 2009, P-2745. (IF-1.932)

7. "New Methods For Determination of Hybridisation State For Organic and Inorganic Molecules or ions in a Very Short Time "
Arijit Das, *Chemistry Today*, May 2011, 20(5), p25, New Delhi, (ISBN-2468).
8. "Synthesis, characterization and Luminescent properties of mixed ligand complexes of nickel (II) with 1,1-dicarboethoxy ethylene-2,2-dithiolate and some nitrogen donors".
M.K.Singh, A. Das, B.Paul, S.Sutradhar and S.Bhattacharjee, *J.Ind.Chem.Soc.*, 89, March 2012, P-421.
9. "New Methods For IUPAC Nomenclature of Bicyclo and Spiro Compounds"
Arijit Das, *Chemistry Today*, April 2012, 21(4), p86-87, New Delhi, (ISBN -2468).
10. "Synthesis, Characterization, Luminescent properties and biological activity studies of mixed ligand complexes of nickel (II) with sulphur and some nitrogen donors"
Mahesh K Singh, Sanjit Sutradhar, Bijaya Paul, D. Barman and Arijit Das* *J. Ind. Chem. Soc.*, 90, Feb - 2013, p-163.
11. "New Methods for prediction of bond order of Molecules, ions and radicals without M.O.T. in a very short time"
Arijit Das and N. Nath, *Chemistry Today*, Feb 2013, 22(2), p13-15, New Delhi, (ISBN-2468).
12. "New Innovative Methods for prediction of hybridization State in a very short time"
Arijit Das, *Ind. Journal of Applied Research*, 3(7), p594, July-2013,
<https://doi.org/10.15373/2249555x/july2013/188> (Crossref Metadata) (IF-0.8215)
Indexed Stanford University:
https://searchworks.stanford.edu/articles/edsair_edsair.doi.dedup.....90483a1acf253b2174b9fd9a181fe05e
13. "New innovative methods for prediction of bond order of mono and diatomic molecules, ions and also acid radicals in a very short time"
Arijit Das, *Indian Journal of Applied Research*, 3(7), p114, July-2013,
<https://doi.org/10.15373/2249555x/july2013/30> (Crossref Metadata) (IF-0.8215)
Indexed Stanford University:
https://searchworks.stanford.edu/articles/edsair_edsair.doi.....b397118b7b7ec0ba1920c8e369978044
14. "New innovative methods for determination of IUPAC nomenclature of spiro and bicyclo compounds in Organic Chemistry"
Arijit Das, *Indian Journal of Applied Research*, 3(7), p596, July-2013,
<https://doi.org/10.15373/2249555x/july2013/189> (Crossref Metadata) (IF-0.8215), **Indexed Stanford University**, Link: https://searchworks.stanford.edu/articles/eric_ED610985
15. "New innovative methods for determination of spin multiplicity, spin state and Magnetic properties of diatomic heteronucler molecules or ions in a very short Interval of time"
Arijit Das, *Indian Journal of Applied Research*, 3(8), p67, Aug-2013,
<https://doi.org/10.15373/2249555x/aug2013/21> (Crossref Metadata) (IF-0.8215)
Indexed Stanford University:
https://searchworks.stanford.edu/articles/edsair_edsair.doi.dedup.....7814003569841c47e4b864cbbcf15370
16. "A rapid and innovative method for the identification of aromatic and anti-aromatic nature of organic compounds"
Arijit Das, Suman Adhikari, Bijaya Paul, V. Jaggannadam and R.Sanjeev, *World Journal of Chemical Education*, 1(1), p6, Sept-2013, SEP, USA, DOI:10.12691/wjce-1-1-2, **Indexed Stanford University**, Link: https://searchworks.stanford.edu/articles/eric_ED610995.

17. "A rapid and innovative method for the easy prediction of Magnetic behavior of homo and hetero nuclear mono and diatomic molecules or ions without MOT"
 Arijit Das, *Indian Journal of Applied Research*, 3(10), p1, Oct-2013,
<https://doi.org/10.15373/2249555x/oct2013/13> (Crossref Metadata) (IF-0.8215)
Indexed Stanford University: Link:
https://searchworks.stanford.edu/articles/edsair_edsair.doi.dedup.....7814003569841c47e4b864cbbcf15370
18. "New methods for prediction of Bond order of mono and diatomic homo and hetero Nuclear molecules or ions with (1-20)e⁻s and Oxide based acid radicals – An innovative approach"
 Arijit Das, *Ind. J. of Applied Research*, 3(11), pp41-43 Nov-2013, (IF-0.8215)
Indexed Stanford University:
https://searchworks.stanford.edu/articles/edsair_edsair.doi.dedup.....16bd4464d1175bd201d3900668d1d415
19. "Simple Thinking Makes Chemistry Metabolic and Interesting - A Review Article"
 Arijit Das, *IOSR-Journal of Applied Chemistry (IOSR-JAC) TIE UP WITH NASA and ANED*, e-ISSN: 2278-5736. Volume 6, Issue 4 (Nov. – Dec. 2013), PP 08-15, DOI-10.9790/5736-0640815, USA.
Indexed Stanford University:
https://searchworks.stanford.edu/articles/edsair_edsair.doi.....8a8181b923391c07320a00e2809ecdad
20. "Simultaneous Equations as a Tool in the Spectrophotometric Analysis of Two Non-interacting Substances in a Binary Mixture: Senior Undergraduate Physical and Physical-Organic Chemistry Laboratory Experiment"
 R. Sanjeev, V. Jagannadham, R. Ravi, R. Veda Vraath, Arijit Das
Journal of Laboratory Chemical Education, 2013, 1(4),p59-64,SAP,,USA, DOI: 0.5923/j.jlce.20130104.01
21. "New Methods for the prediction of Magnetic Moment of homo and hetero nuclear mono and diatomic molecules or ions without MOT-A Rapid Innovative Approach"
 Arijit Das, *International Journal of Advance Research in Applied Chemistry*, SCI Pub.,01(10), Oct-2013, pp1-7, ISSN(online): 2320-9178, USA.
22. "Rapid calculation of the number of π -bonds, σ -bonds, single and triple bonds in aliphatic unsaturated open chain and cycloalkynes"
 Arijit Das, Suman Adhikari, Debapriya Paul, Bijaya Paul, V. Jagannadham and R.Sanjeev,
World Journal of Chemical Education, 2014, 2(1), pp1-3, SEP, USA, DOI:10.12691/wjce-2-1-1,
Indexed Stanford University, Link: https://searchworks.stanford.edu/articles/eric_ED610994
23. "Supramolecular Chemistry and its application" (Review Article)
 Suman Adhikari, Arijit Das & Basu Maan Daas, Prayas, *Journal of Multidisciplinary Area*, Vol-01(01), pp 72-78, Feb-2014 Online ISSN 2348-618X.
24. "Rapid calculation of the number of π -bonds, σ -bonds, single and double bonds in aliphatic unsaturated open chain and cyclic olefinic hydrocarbons"
 Arijit Das, Debapriya Pal, Bijaya Paul, R. Sanjeev and V. Jagannadham, *Education in Chemical Science and Technology*, published by *Ind. Chem. Soc.*, Aug-2014, 2(1), pp 41-46
Indexed Stanford University:
https://searchworks.stanford.edu/articles/edsair_edsair.doi.dedup.....82605d8b4a6b30f248dae88821885581
25. "Synthesis and Characterization of mixed ligand complexes of Co(II) ion with some N and S donor" Mahesh K. Singh*, Ranajoy Laskar, Sanjit Sutradhar, Bijaya Paul, S. Bhattacharjee and Arijit Das*, *IOSR Journal of Applied Chemistry (IOSR-JAC) e-ISSN: 2278-5736. Volume 7, Issue 4 (1), (Apr. 2014), PP 24-29, DOI: 10.9790/5736-07412429, ANED DDL(American National Engineering Database Digital Data link) no: 23.5736/iosr-jac-E07412429*
26. "Innovative And Time Economic Pedagogical Views In Chemical Education - A Review Article"
 Arijit Das, R.Sanjeev and V.Jagannadham, *World Journal of Chemical Education*, 2014,

- Vol. 2, No. 3, 29-38, Science and Education Publishing , USA, DOI:10.12691/wjce-2-3-1.
Indexed Stanford University: Link: https://searchworks.stanford.edu/articles/eric_ED609695
27. "Association Behavior of Mono, Di and Tri-hydric Alcohols with Three Carbon Skeleton in a Straight Chain"
 R. Sanjeev, V. Jagannadham, Adam A. Skelton, Arijit Das, *World Journal of Chemical Education*, 2014, Vol. 2, No. 3, 39-41, Science and Education Publishing, USA, DOI:10.12691/wjce-2-3-2.
 28. "Time Economic Innovative Methodology on the Prediction of Hybridization State of Heterocyclic Compounds"
 Arijit Das, Bijaya Paul, R.Sanjeev and V.Jagannadham
IOSR Journal of Applied Chemistry (IOSR-JAC) e-ISSN: 2278-5736. Volume 7, Issue 8 (2), (Aug-2014), PP 38-39, DOI: 10.9790/5736-07412429.
Indexed Stanford University:
https://searchworks.stanford.edu/articles/edsair_edsair.doi.....163b173556164ad77ee822824fccb6a5
 29. "Synthesis, Crystal Structure And Antifungal Activity Studies of a Newly Synthesized Polymeric Mixed Ligand Complex of Zn (II) With 1,1-dithiolate and Nitrogen donors"
 Mahesh Kumar Singh, Sanjit Sutradhar, Bijaya Paul, Suman Adhikari, Raymond J. Butcher, Sandeep Acharya and Arijit Das*
J.of Co-ordination Chemistry, Taylor & Francis Pub.(London),Vol.67,No.22,3613–3620, 2014
<http://dx.doi.org/10.1080/00958972.2014.972388> (IF-2.223)
 30. Cd(II) complexation With 1,1-dithiolate and Nitrogen donors: Synthesis, Luminescence, Crystal Structure And Antifungal Activity Study
 Mahesh Kumar Singh, Sanjit Sutradhar, Bijaya Paul, Suman Adhikari, Raymond J. Butcher, Sandeep Acharya and Arijit Das*
J.of Co-ordination Chemistry, 2015, Vol. 68, No. 8, 1423–1432, Taylor & Francis Pub.(London)
<http://dx.doi.org/10.1080/00958972.2015.1013946>
 31. Time Economic Innovative Pedagogies In Chemical Science - A Review Article
 Arijit Das* and Bijaya Paul, *Education in Chemical Science and Technology, Ind.Chem.Soc., Vol-3, No.1, PP 1-28, Aug-2015.*
Indexed Stanford University: Link:
https://searchworks.stanford.edu/articles/edsair_edsair.doi.dedup.....cc94683bf601ac348efedd716862353e
 32. 'HYDROCARBONS PARSER TOOL' Arijit Das, Edel Garcia, A.I.Malah and K.I.Quach, Minerazzi.Com, USA, 24 Aug 2015. <http://www.minerazzi.com/tools/hydrocarbons/parser.php>
 33. Six-coordinate cadmium (II) complex containing a bridging dithiolate ligand: Synthesis, Crystal Structure and Antifungal Activity Study
 Mahesh Kumar Singh, Sanjit Sutradhar, Bijaya Paul, Suman Adhikari, Raymond J. Butcher, Sandeep Acharya and Arijit Das*
J.of Co-ordination Chemistry, Taylor & Francis Pub.(London),UK (online published 3rd Nov-2015)
 Volume 69, Issue 1, January 2016, pages 168-175.
 34. Synthesis and Structural Characterization of Mixed Ligand Complexes of Manganese (II) With Some Nitrogen and Sulphur Donors by Magnetic and Spectroscopic Methods
 M.K.Singh, Bijaya Paul , Arijit Das, *IOSR-JAC*, 9, 2(1),p42-48, Feb-2016
 35. Manganese(II) Complexation with 1,1-dithiolate and Nitrogen donors – Synthesis, magnetic properties and spectroscopic studies
 Mahesh K. Singh, Bijaya Paul and Arijit Das, *IOSR-JAC*, Vol 9, Issue 11(11), p1-7 Nov-2016
 36. Synthesis, TGA, Luminescent and Antifungal Activity Studies of Nickel (II) Complexes of 1,1-dithiolate - Mahesh K. Singh, Sanjit Sutradhar, Arijit Das and Sandeep Acharya, *Asian J. of Chemistry*, Vol 29, No 5, 1023-1028, 2017
 37. A new Cadmium(II) complex with bridging dithiolate ligand: synthesis, crystal structure and antifungal activity study
 Mahesh Kumar Singh, Sanjit Sutradhar, Bijaya Paul, Suman Adhikari, F.Laskar, Raymond J.

- Butcher, Sandeep Acharya and Arijit Das*, *Journal of Molecular Structure, Elsevier Pub.*, Vol 1139, 5 July 2017, Pages 395–399, <https://doi.org/10.1016/j.molstruc.2017.03.073>.
38. Synthesis and Structural characterization of mixed ligand complexes of nickel(II) with 1, 8-diaminonaphthalene and 1-cyano-1-carboethoxyethylene-2,2-dithiolate
M. K. Singh, Sanjit Sutradhar and Arijit Das, *J. of the Indian Chem. Soc.*, pp 497-502, May 2017.
 39. Bond-order and Magnetic Behavior of Diatomic Species without Molecular Orbital Theory Arijit Das, *World Journal of Chemical Education*, Book Chapter, vol. 5, no. 4, 19th June 2017, pp 128-131, doi:10.12691/wjce-5-4-2, **Indexed Stanford University**, Link: https://searchworks.stanford.edu/articles/eric_ED610993
 40. Chemical Bonding: Time Economic Innovative Pedagogies - A Review Article Arijit Das, *Global Journal of Science Frontier Research Chemistry (GJSFR B)*, Vol 17, Issue 2 (1), 28th Nov 2017, pp 1-16, doi:10.17406/GJSFR
 41. Mixed-ligand complexes of zinc(II) with 1,1-dicyanoethylene-2,2-dithiolate and N-donor ligands: A combined experimental and theoretical study
Arijit Das *et al.* *Journal of Molecular Structure, Elsevier*, 1164, July 2018, pp 334-343, <https://doi.org/10.1016/j.molstruc.2018.03.073>.
 42. Time Economic Innovative Mnemonics In Chemical Education - A Review Article Arijit Das, *International Journal of Physics & Chemistry Education (Eurasian Journal of Physics and Chemistry Education - EJPCE)*, 10(1), June 2018, pp 27-40, (<https://doi.org/10.12973/ijpce/81589>)
 43. Lone Pair Electron Discriminate Hybridization with Aromatic and Anti Aromatic behavior of Heterocyclic Compounds - Innovative Mnemonics
Arijit Das, *World Journal of Chemical Education*, vol. 6, no. 2, 4th April 2018, pp95-101, DOI: 10.12691/wjce-6-2-4, **Indexed Stanford University**, Link: https://searchworks.stanford.edu/articles/eric_ED609311
 44. Time Economic Innovative Mnemonics in Chemical Education - A Review Article Arijit Das, *American Journal of Chemistry and Applications, Open science*, 5(1), pp 19-32, 2018.
 45. Lone Pair of Electrons Discriminate Hybridization with Aromaticity in the Heterocyclic Compounds - Innovative Mnemonics
Arijit Das, *World Journal of Chemical Education*, vol. 6, no. 3, 27th April 2018, pp107-112, DOI: 10.12691/wjce-6-3-1.
 46. Review of Innovative Mnemonics for Inorganic and Organic Chemical Education
Arijit Das, *Chemistry Journal*, published by the American Institute of Science (AIS), Vol. 4, No. 2, 2018, pp. 11-31, **Indexed Stanford University**, Link: https://searchworks.stanford.edu/articles/eric_ED610991
 47. INNOVATIVE MNEMONICS IN CHEMICAL EDUCATION: REVIEW ARTICLE
Arijit Das, *African Journal of Chemical Education (AJCE)*, *AJCE*, 2018, 8(2), pp144-189, July 2018 Issue, ISSN 2227-5835
Indexed Stanford University: Link: https://searchworks.stanford.edu/articles/edsair_edsair.78975075580c..51d5907555b6d138677e0b9ee360e7ca
 48. Innovative Mnemonics Make Chemical Education Time Economic – A Pedagogical Review Article Special Issue "Teaching Science in the 21st Century", Arijit Das, *World Journal of Chemical Education*, vol. 6, no. 4, pp154-174, 25th Sept 2018 DOI:10.12691/wjce-6-4-2, **Indexed Stanford University**, Link: https://searchworks.stanford.edu/articles/eric_ED609695 .
 49. ‘Bond Order Tool’ Arijit Das, Edel Garcia, A.I.Malah and K.I.Quach, Minerazzi.Com, USA, 20 Dec 2018, <http://www.minerazzi.com/tools/bond-order/calculator.php>.
 50. ‘Modern Educational Tools’, Arijit Das, *TPSC Interview Guide Book*, Book Chapter, *Tripurainfo.com*, Nov 2019, pp 308-313.
 51. ‘Predicting the hybridization state: a comparative study between conventional and innovative formulae’ Arijit Das, *Journal of Education and Learning (EduLearn)*, Vol. 14, No. 2, May 2020, pp. 272-278, ISSN: 2089-9823, Published by the Universitas Ahmad Dahlan (UAD) in collaboration with Institute of Advanced Engineering and Science (IAES), Indonesia, DOI: <http://dx.doi.org/10.11591/edulearn.v14i2.14078>,

- (Indexed Stanford University), Link: https://searchworks.stanford.edu/articles/eric_EJ1266632.
52. ‘Bimetallic and Trimetallic Cd(II) and Hg(II) Mixed-Ligand Complexes with 1,1-dicyanoethylene-2,2-dithiolate and Polyamines: Synthesis, Crystal structure, Hirshfeld Surface analysis, and Antimicrobial study’, Suman Adhikari, Tirtha Bhattacharjee, Priyatosh Nath, Arijit Das, Jerry P. Jasinski, Raymond J. Butcher, Debasish Maiti, *Inorganica Chimica Acta*, 512 (2020), pp 119877, Available online 11 July 2020, doi: <https://doi.org/10.1016/j.ica.2020.119877>.
53. ‘On the supramolecular properties of neutral, anionic and cationic cadmium complexes harvested from dithiolate–polyamine binary ligand systems’, Suman Adhikari, Tirtha Bhattacharjee, Arijit Das, Subhadip Roy, Constantin Gabriel Daniliuc, Jan K. Zaręba, Antonio Bauzá g and Antonio Frontera, *CrystEngComm, Royal Society of Chemistry*, October 2020, DOI: 10.1039/d0ce01233e.
54. IUPAC Nomenclature of Higher Alkanes – Innovative Mnemonics, (Indexed Stanford University), Link: https://searchworks.stanford.edu/articles/eric_ED611724
Arijit Das, *World Journal of Chemical Education*, Vol. 9, No. 2, pp 42-45, 2021
55. Classification of Negative Charge Discriminate Hybridization with Aromatic and Anti-aromatic Behavior of Organic Compounds - Innovative Mnemonics (Indexed Stanford University), Link: https://searchworks.stanford.edu/articles/eric_ED613509
Arijit Das, *World Journal of Chemical Education*, Vol. 9, No. 2, pp 57-63, 2021
56. Exploring dithiolate-amine binary ligand systems for the supramolecular assemblies of Ni(II) coordination compounds: Crystal structures, theoretical studies, cytotoxicity studies, and molecular docking studies
Tirtha Bhattacharjee, Suman Adhikari, , Sharmila Bhattacharjee, Sourav Debnath, Arijit Das, Constantin Gabriel Daniliuc , Krishnan Thirumoorthy, Sarubala Malayaperumal, Antara Banerjee, Surajit Pathak, Antonio Frontera, *Inorganica Chimica Acta*, 543 (Dec 2022), 121157, DOI: <https://doi.org/10.1016/j.ica.2022.121157>
57. Mixed Ligand Complexes of Cobalt (II) – Synthesis, Reactivity, Physico-chemical and Spectroscopic studies, ARIJIT DAS, PARESH DEBNATH, BIJAYA PAUL, KARTICK LAL BHOWMIK, ABHIJIT BHATTACHARYA, and BANTI GANGULY, *Asian Journal of Chemistry*, 2023, 35(4), pp 910-916, <https://doi.org/10.14233/ajchem.2023.27479> (SCOPUS Indexed).
58. Metal Ions Separation Via Paper Chromatography: Enhanced Methods Using Eluting Solutions. Arijit Das, Digvijaya Sarmaa, Paresh Debnath and Bijaya Paul, *World Journal of Chemical Education*. Nov 2023; 11(4):134-140. doi: 10.12691/wjce-11-4-2 (SCOPUS Indexed).
59. Cd(II) and Zn(II) complexes with 2-mercaptopyridine: Synthesis, crystal structure, Hirshfeld surface analysis, luminescent properties, aggregation behaviours, current-voltage characteristic and antibacterial assay, Arijit Das, Syed Arshad Hussain, Hritinava Banik, Debasish Maiti, Tamanna Aktar, Bijaya Paul, Pratima Debnath, Leslaw Sieron, Abhijit Bhattacharya, Kartick Lal Bhowmik , Waldemar Maniukiewicz, Paresh Debnath, *Polyhedron* (Elsevier), 247, 11674, 2024, <https://doi.org/10.1016/j.poly.2023.116747>.
60. Metal-Based Drugs in Cancer Therapy, Sourav Nath, Abhijit Datta, Arijit Das and Suman Adhikari, *Int. J. Exp. Res. Rev.*, Vol. 37: 159-173 (2024), DOI: <https://doi.org/10.52756/ijerr.2024.v37spl.014>, International Academic Publishing House (IAPH).
61. Multifunctional Transition Metal Complexes: Design, Synthesis, Luminescent Features, Electrical Behaviour, Nanostructure Morphology and Bioactive Properties with 1,1- Dicyanoethylene-2,2-dithiolate and p-Phenylenediamine Ligands, Arijit Das, Syed Arshad Hussain, Hritinava Banik, Debasish Maiti, Tamanna Aktar, Sandeep Acharya, Paresh Debnath, *Asian Journal of Chemistry*, Volume 36 (2024). (Accepted).
62. Advanced Methods for the Separation and Identification of p and d block elements by Paper Chromatography, Arijit Das, Digvijaya Sarmaa, Rupak Das, Bijaya Paul, Pratima Debnath, Suman Adhikari, Arnab Bhattacharya, and Paresh Debnath, (Book Chapter), "A Basic Handbook of Science,

Technology and Innovation for Inclusive Development (Volume-1)", International Academic Publishing House (IAPH) (2024) (Accepted).

63. Separation and Identification of Metal ions by Paper Chromatography: Improved Qualitative Inorganic Analysis, Arijit Das, Paresh Debnath, Digvijaya Sarmaa, Rupak Das 2 , Bijaya Paul 3 and Pratima Debnath, African Journal of Chemical Education (AJCE), Vol. 14, No. 1, July 2024 (Accepted).

Indexing and Citation:

- 1) Stanford University (<https://searchworks.stanford.edu/view/14279378>)
- 2) American Chemical Society (<https://doi.org/10.1021/scimeetings.3c00021>)
- 3) ERIC Department of Education, Govt. of US (<https://eric.ed.gov/?q=Arijit+Das>)
- 4) chem.libretexts.org, University of California, Davis, US
(<https://chem.libretexts.org/Special:Search?qid=&fpid=230&fpth=&query=Arijit+Das&type=wiki>)
- 5) Indian Chemical Society, A.P.C. Road, Kolkata, India - Aug-2015
- 6) Mendeley, Elsevier: <https://www.mendeley.com/profiles/arijit-das12/>
- 7) SCOPUS : <https://www.scopus.com/authid/detail.uri?authorId=55340308600>
- 8) KUDOS, Taylor & Francis: <https://www.growkudos.com/profiles/23247>
- 9) ResearchGate : https://www.researchgate.net/profile/Arijit_Das36
- 10) Google Scholar : <https://scholar.google.com/citations?hl=en&user=Ml64gJcAAAAJ>
- 11) Academia.Edu, USA: <https://tripurauniversity.academia.edu/ArijitDas>
- 12) Orcid : <https://orcid.org/0000-0001-7409-7237>
- 13) WikiEducator (OER), Otago Polytechnic, New Zealand
(<https://wikieducator.org/User:Arijitdas78chem>)

Education Resources Information Center (ERIC), US Department of Education Indexed Articles:

Innovative Teaching Methodologies (21) and Formulae (40) indexed by the Education Resources Information Center (ERIC), US Department of Education

Link: <http://www.sciepub.com/journal/WJCE/eric>

ERIC Indexed Articles **(2013-2021)**

ERIC is an **online library of education research and information**, sponsored by the **Institute of Education Sciences (IES)** of the **U.S. Department of Education**.

1. IUPAC Nomenclature of Higher Alkanes -- Innovative Mnemonics

ERIC Number: ED611724 Pub Year: 2021

ERIC Link: <https://eric.ed.gov/?q=Arijit+Das+chemistry&id=ED611724>

2. Classification of Negative Charge Discriminate Hybridization with Aromatic and Anti-Aromatic Behavior of Organic Compounds - Innovative Mnemonics

ERIC Number: ED613509

ERIC Link: <https://eric.ed.gov/?q=arijit+chemistry&id=ED613509>

Pub Year: 2021

3. Predicting the Hybridization State: A Comparative Study between Conventional and Innovative Formulae **ERIC Number: EJ1266632**

ERIC Link: <https://eric.ed.gov/?q=Hybridization&id=EJ1266632>

Pub Year: 2020

4. Lone Pair Electron Discriminate Hybridization with Aromatic and Anti Aromatic Behavior of Heterocyclic Compounds - Innovative Mnemonics

ERIC Number: ED609311

ERIC Link: <https://eric.ed.gov/?q=Arijit+Das+chemistry&id=ED609311>

Pub Year: 2018

5. Innovative Mnemonics Make Chemical Education Time Economic -- A Pedagogical Review Article **ERIC Number: ED609695**

ERIC Link:

<https://eric.ed.gov/?q=Arijit+Das+World+Journal+of+Chemical+Education&id=ED609695>

Pub Year: 2018

6. Review of Innovative Mnemonics for Inorganic and Organic Chemical Education

ERIC Number: ED610991

ERIC Link: <https://eric.ed.gov/?q=Mnemonics&pg=2&id=ED610991>

Pub Year: 2018

7. Bond-Order and Magnetic Behavior of Diatomic Species without Molecular Orbital Theory **ERIC Number: ED610993**

ERIC Link:

<https://eric.ed.gov/?q=Arijit+Das+World+Journal+of+Chemical+Education&id=ED610993>

Pub Year: 2017

8. Rapid Calculation of the Number of [Pi]-Bonds, [Sigma]-Bonds, Single and Triple Bonds in Aliphatic Unsaturated Open Chain and Cycloalkynes

ERIC Number: ED610994

ERIC Link: <https://eric.ed.gov/?q=Arijit+Das+chemistry&id=ED610994>

Pub Year: 2014

9. A Rapid and Innovative Method for the Identification of Aromatic and Anti-Aromatic Nature of Organic Compounds ERIC Number: ED610995

ERIC Link: <https://eric.ed.gov/?q=Arijit+Das+chemistry&id=ED610995>

Pub Year: 2013

10. New Innovative Methods for IUPAC Nomenclature of Bicyclo and Spiro Compounds in Organic Chemistry

ERIC Number: ED610985

ERIC Link: <https://eric.ed.gov/?q=Spiro+and+bicyclo&id=ED610985>

Pub Year: 2013

Authorship, WikiEducator, Open Educational Resource (OER) Foundation, Otago Polytechnic, Dunedin, New Zealand:

Dr. Das is a regular author on the 'WikiEducator' page since May 06, 2021.

WikiEducator Page Link: <https://wikieducator.org/User:Arijitdas78chem>.

Uploaded Chapters Link: <https://wikieducator.org/Special:WhatLinksHere/User:Arijitdas78chem>

Published Chapters in WikiEducator (OER)

CHEMICAL BONDING

Chapter 1 - PREDICTION OF THE HYBRIDIZATION STATE OF SIMPLE MOLECULES or IONS, pp 1-22

Link: https://wikieducator.org/File:Chapter_1-

[PREDICTION OF THE HYBRIDIZATION STATE OF SIMPLE MOLECULES or IONS.pdf](https://wikieducator.org/File:Chapter_1-PREDICTION_OF_THE_HYBRIDIZATION_STATE_OF_SIMPLE_MOLECULES_or_IONS.pdf)

Pub Date: May 06, 2021

Chapter 2 - PREDICTION OF THE HYBRIDIZATION STATE OF ORGANIC COMPOUNDS, pp 23-34

Link: https://wikieducator.org/File:Chapter_2_-

[PREDICTION OF THE HYBRIDIZATION STATE OF ORGANIC COMPOUNDS pp 23-34.pdf](https://wikieducator.org/File:Chapter_2-PREDICTION_OF_THE_HYBRIDIZATION_STATE_OF_ORGANIC_COMPOUNDS_pp_23-34.pdf)

Pub Date: May 06, 2021

Chapter 3 - Prediction Of The Hybridization State - A Comparative Study Between Conventional and Innovative Formulae, pp 35-43

Link: https://wikieducator.org/File:Chapter_3_-

[Prediction Of The Hybridization State %E2%80%93 A Comparative Study Between Conventional and Innovative Formulae pp 35-43.pdf](https://wikieducator.org/File:Chapter_3-Prediction_Of_The_Hybridization_State_%E2%80%93_A_Comparative_Study_Between_Conventional_and_Innovative_Formulae_pp_35-43.pdf)

Pub Date: May 06, 2021

Chapter 4 - BOND ORDER OF DIATOMIC SPECIES WITHOUT MOLECULAR ORBITAL THEORY (MOT), pp 44-54

Link: [https://wikieducator.org/File:Chapter-4 BOND ORDER OF DIATOMIC SPECIES WITHOUT MOLECULAR ORBITAL THEORY \(MOT\) pp 44-54.pdf](https://wikieducator.org/File:Chapter-4 BOND ORDER OF DIATOMIC SPECIES WITHOUT MOLECULAR ORBITAL THEORY (MOT) pp 44-54.pdf)

Pub Date: May 06, 2021

Chapter 5 - PREDICTION OF THE BOND ORDER OF OXIDE BASED ACID RADICALS, pp 55-58

Link: <https://wikieducator.org/File:Chapter 5 - PREDICTION OF THE BOND ORDER OF OXIDE BASED ACID RADICALS pp 55-58.pdf>

Pub Date: May 06, 2021

Chapter 6 - PREDICTION OF THE MAGNETIC BEHAVIOUR AND BOND ORDER OF DIATOMIC SPECIES WITHOUT MOLECULAR ORBITAL THEORY (MOT), pp 59-68

Link: [https://wikieducator.org/File:Chapter-6 - PREDICTION OF THE MAGNETIC BEHAVIOUR AND BOND ORDER OF DIATOMIC SPECIES WITHOUT MOLECULAR ORBITAL THEORY \(MOT\) pp 59-68.pdf](https://wikieducator.org/File:Chapter-6 - PREDICTION OF THE MAGNETIC BEHAVIOUR AND BOND ORDER OF DIATOMIC SPECIES WITHOUT MOLECULAR ORBITAL THEORY (MOT) pp 59-68.pdf)

Pub Date: May 07, 2021

Chapter 7 - INNOVATIVE METHOD FOR THE PREDICTION OF SPIN MULTIPLICITY, pp 69-80

Link: <https://wikieducator.org/File:Chapter 7 - INNOVATIVE METHOD FOR THE PREDICTION OF SPIN MULTIPLICITY pp 69-80.pdf>

Pub Date: May 08, 2021

AROMATICITY

Chapter 8 - INNOVATIVE METHODS FOR THE PREDICTION OF AROMATIC ANTI-AROMATIC AND NON-AROMATIC BEHAVIOUR OF SIMPLE ORGANIC COMPOUNDS, pp 81-91

Link: <https://wikieducator.org/File:Chapter 8 - INNOVATIVE METHODS FOR THE PREDICTION OF AROMATIC ANTI-AROMATIC AND NON-AROMATIC BEHAVIOUR OF SIMPLE ORGANIC COMPOUNDS pp 81-91.pdf>

Pub Date: May 10, 2021

Chapter 9 - INNOVATIVE METHODS FOR THE PREDICTION OF AROMATIC, ANTI-AROMATIC AND NON AROMATIC BEHAVIOUR OF HETEROCYCLIC COMPOUNDS, pp 92-109

Link: [https://wikieducator.org/File:Chapter 9 -
_INNOVATIVE METHODS FOR THE PREDICTION OF AROMATIC, ANTI-
_AROMATIC AND NON AROMATIC BEHAVIOUR OF HETEROCYCLIC COMPOUNDS pp 92-
_109.pdf](https://wikieducator.org/File:Chapter_9_-_INNOVATIVE_METHODS_FOR_THE_PREDICTION_OF_AROMATIC,_ANTI-AROMATIC_AND_NON_AROMATIC_BEHAVIOUR_OF_HETEROCYCLIC_COMPOUNDS_pp_92-109.pdf)

Pub Date: May 15, 2021

HYDROCARBONS

Chapter 10 - INNOVATIVE METHODS FOR THE CALCULATION OF CHEMICAL BONDS IN ALKENES, pp 110-113

Link: [https://wikieducator.org/File:Chapter 10 -
_INNOVATIVE METHODS FOR THE CALCULATION OF CHEMICAL BONDS IN ALKENES pp
_110-113.pdf](https://wikieducator.org/File:Chapter_10_-_INNOVATIVE_METHODS_FOR_THE_CALCULATION_OF_CHEMICAL_BONDS_IN_ALKENES_pp_110-113.pdf)

Pub Date: May 19, 2021

Chapter 11- INNOVATIVE MNEMONICS FOR THE CALCULATION OF CHEMICAL BONDS IN ALKYNES, pp 114-117

Link: [https://wikieducator.org/File:Chapter 11-
_INNOVATIVE MNEMONICS FOR THE CALCULATION OF CHEMICAL BONDS IN ALKYNES p
_p 114-117.pdf](https://wikieducator.org/File:Chapter_11-_INNOVATIVE_MNEMONICS_FOR_THE_CALCULATION_OF_CHEMICAL_BONDS_IN_ALKYNES_p_p_114-117.pdf)

Pub Date: Aug 09, 2021

ORGANIC IUPAC NOMECLATURE

Chapter 12 - INNOVATIVE METHODS FOR THE IUPAC NOMENCLATURE OF BICYCLO AND SPIRO COMPOUNDS, pp 118-124

Link: [https://wikieducator.org/File:Chapter 12 -
_INNOVATIVE METHODS FOR THE IUPAC NOMENCLATURE OF BICYCLO AND SPIRO CO
_MPOUNDS pp 118-124.pdf](https://wikieducator.org/File:Chapter_12_-_INNOVATIVE_METHODS_FOR_THE_IUPAC_NOMENCLATURE_OF_BICYCLO_AND_SPIRO_COMPOUNDS_pp_118-124.pdf)

Pub Date: Aug 11, 2021

Chapter 13 - IUPAC Nomenclature of Higher Alkanes - Innovative Method, pp 125-130

Link: [https://wikieducator.org/File:Chapter 13 -
_IUPAC Nomenclature of Higher Alkanes %E2%80%93 Innovative Method pp 125-
_130.pdf](https://wikieducator.org/File:Chapter_13_-_IUPAC_Nomenclature_of_Higher_Alkanes_%E2%80%93_Innovative_Method_pp_125-130.pdf)

Pub Date: Nov 21, 2021

Chapter 14 - Classification of Negative charge discriminate hybridization with aromatic and anti-aromatic behavior of organic compounds - Innovative Methods, pp 131-143

Link: [https://wikieducator.org/File:Chapter 14 -](https://wikieducator.org/File:Chapter_14_-_Classification_of_Negative_charge_discriminate_hybridization_with_aromatic_and_anti-aromatic_behavior_of_organic_compounds_-_Innovative_Methods_pp_131-143.pdf)

[Classification of Negative charge discriminate hybridization with aromatic and anti-aromatic behavior of organic compounds - Innovative Methods pp 131-143.pdf](https://wikieducator.org/File:Chapter_14_-_Classification_of_Negative_charge_discriminate_hybridization_with_aromatic_and_anti-aromatic_behavior_of_organic_compounds_-_Innovative_Methods_pp_131-143.pdf)

Pub Date: Nov 23, 2021

CHEMICAL BONDING

Chapter 15 - PREDICTION OF BOND ANGLE OF POLYATOMIC MOLECULES, pp 144-147

Link: [https://wikieducator.org/File:Chapter 15 -](https://wikieducator.org/File:Chapter_15_-_PREDICTION_OF_BOND_ANGLE_OF_POLYATOMIC_MOLECULES_pp_144-147.pdf)

[PREDICTION OF BOND ANGLE OF POLYATOMIC MOLECULES pp 144-147.pdf](https://wikieducator.org/File:Chapter_15_-_PREDICTION_OF_BOND_ANGLE_OF_POLYATOMIC_MOLECULES_pp_144-147.pdf)

Pub Date: Nov 25, 2021

INFRARED SPECTROSCOPY (IR)

Chapter 16 - Infrared spectroscopy (Theory & Principle), pp 148-150

Link: [https://wikieducator.org/File:Chapter-](https://wikieducator.org/File:Chapter-16_Infrared_spectroscopy_(Theory_%26_Principle)_pp_148-150.pdf)

[16 Infrared spectroscopy \(Theory %26 Principle\) pp 148-150.pdf](https://wikieducator.org/File:Chapter-16_Infrared_spectroscopy_(Theory_%26_Principle)_pp_148-150.pdf)

Pub Date: Nov 28, 2021

Chapter 17 - Infrared spectroscopy (Vibrational Modes), pp 151-155

Link: [https://wikieducator.org/File:Chapter-](https://wikieducator.org/File:Chapter-17_Infrared_spectroscopy_(Vibrational_Modes)_pp_151-155.pdf)

[17 Infrared spectroscopy \(Vibrational Modes\) pp 151-155.pdf](https://wikieducator.org/File:Chapter-17_Infrared_spectroscopy_(Vibrational_Modes)_pp_151-155.pdf)

Pub Date: Dec 06, 2021

Chapter 18 - Infrared spectroscopy (FINGERPRINT REGION), pp 156-158

Link: [https://wikieducator.org/File:Chapter-](https://wikieducator.org/File:Chapter-18_Infrared_spectroscopy_(FINGERPRINT_REGION)_pp_156-158.pdf)

[18 Infrared spectroscopy \(FINGERPRINT REGION\) pp 156-158.pdf](https://wikieducator.org/File:Chapter-18_Infrared_spectroscopy_(FINGERPRINT_REGION)_pp_156-158.pdf)

Pub Date: Dec 17, 2021

Chapter 19 - Infrared spectroscopy (Bond Parameter & Hybridization), pp 159-160

Link: [https://wikieducator.org/File:Chapter-](https://wikieducator.org/File:Chapter-19_Infrared_spectroscopy_(Bond_Parameter_%26_Hybridization)_pp_159-160.pdf)

[19 Infrared spectroscopy \(Bond Parameter %26 Hybridization\) pp 159-160.pdf](https://wikieducator.org/File:Chapter-19_Infrared_spectroscopy_(Bond_Parameter_%26_Hybridization)_pp_159-160.pdf)

Pub Date: Dec 25, 2021

Chapter 20 - Infrared spectroscopy (Identifying Compounds or ligands), pp 161-173

Link: [https://wikieducator.org/File:Chapter-](https://wikieducator.org/File:Chapter-20_Infrared_spectroscopy_(Identifying_Compounds_or_ligands)_pp_161-173.pdf)

[20 Infrared spectroscopy \(Identifying Compounds or ligands\) pp 161-173.pdf](https://wikieducator.org/File:Chapter-20_Infrared_spectroscopy_(Identifying_Compounds_or_ligands)_pp_161-173.pdf)

Pub Date: Dec 30, 2021

Coordination Chemistry

Chapter 21 - Coordination Chemistry (Introduction), pp 174-178

Link: [https://wikieducator.org/File:Chapter-21_Coordination_Chemistry_\(Introduction\)_pp_174-178.pdf](https://wikieducator.org/File:Chapter-21_Coordination_Chemistry_(Introduction)_pp_174-178.pdf)

Pub Date: Jan 12, 2022

Chapter 22 - Coordination Chemistry (Structural Isomerism), pp 179-187

Link: [https://wikieducator.org/File:Chapter_22_-_Coordination_Chemistry_\(Structural_Isomerism\)_pp_179-187.pdf](https://wikieducator.org/File:Chapter_22_-_Coordination_Chemistry_(Structural_Isomerism)_pp_179-187.pdf)

Pub Date: Jan 19, 2022

Chapter 23 - Coordination Chemistry (Geometrical Isomerism), pp 188-196

Link: [https://wikieducator.org/File:Chapter_23_-_Coordination_Chemistry_\(Geometrical_Isomerism\)_pp_188-196.pdf](https://wikieducator.org/File:Chapter_23_-_Coordination_Chemistry_(Geometrical_Isomerism)_pp_188-196.pdf)

Pub Date: Jan 25, 2022

Chapter 24 - Coordination Chemistry (Optical isomerism), pp197-203

Link: [https://wikieducator.org/File:Chapter-24_Coordination_Chemistry_\(Optical_isomerism\)_pp197-203.pdf](https://wikieducator.org/File:Chapter-24_Coordination_Chemistry_(Optical_isomerism)_pp197-203.pdf)

Pub Date: March 14, 2022

Chapter 25 - Coordination Chemistry (IUPAC Nomenclature), pp 204-208

Link: [https://wikieducator.org/File:Chapter-25_Coordination_Chemistry_\(IUPAC_Nomenclature\)_pp_204-208.pdf](https://wikieducator.org/File:Chapter-25_Coordination_Chemistry_(IUPAC_Nomenclature)_pp_204-208.pdf)

Pub Date: March 19, 2022

Chapter 26 - Coordination Chemistry - Crystal Field Theory (CFT), pp 209-220

Link: [https://wikieducator.org/File:Chapter-26_Coordination_Chemistry_-_Crystal_Field_Theory_\(CFT\)_pp_209-220.pdf](https://wikieducator.org/File:Chapter-26_Coordination_Chemistry_-_Crystal_Field_Theory_(CFT)_pp_209-220.pdf)

Pub Date: Sept 05, 2022

File:Chapter-27 Coordination Chemistry - Crystal Field Stabilization Energy (CFSE) pp 221-228

Link: [https://wikieducator.org/File:Chapter-27_Coordination_Chemistry_-_Crystal_Field_Stabilization_Energy_\(CFSE\)_pp_221-228.pdf](https://wikieducator.org/File:Chapter-27_Coordination_Chemistry_-_Crystal_Field_Stabilization_Energy_(CFSE)_pp_221-228.pdf)

Pub Date: Dec 02, 2022

File: Chapter-28 Paper Chromatography-Separation of mixtures of ions (Pb²⁺ & Ag⁺) by Paper Chromatographic Technique pp 229-231

Link: [https://wikieducator.org/File:Paper_Chromatography-Separation_of_mixtures_of_ions_\(Pb%2B%20%26_Ag%2B\)_by_Paper_Chromatographic_Technique_pp_229-231.pdf](https://wikieducator.org/File:Paper_Chromatography-Separation_of_mixtures_of_ions_(Pb%2B%20%26_Ag%2B)_by_Paper_Chromatographic_Technique_pp_229-231.pdf)

Pub Date: Dec 02, 2022

EDUCATIONAL SOFTWARE TOOL LAUNCHED IN USA

1.HYDROCARBONS PARSER TOOL LAUNCHED IN THE USA:

On 24th Aug-2015 a new and practical applications of my 14 new formulae and 04 innovative teaching time-economic methodologies on 'Number of Chemical bonds in Hydrocarbon' came in the form of a tool namely 'Hydrocarbon Parser' made by Dr.Edel Garcia, a multidisciplinary scientist and Administrator of Minerazzi.com, Bayamon, Puerto Rico, USA to calculate and discriminate of chemical bonds in hydrocarbons. Dr.Garcia the creator of the Minerazzi Project, which started at the now defunct local Microsoft Innovation Center. Minerazzi (<http://www.minerazzi.com>) is a platform owned by Dr.Garcia and for building topic-specific search engines on any field or knowledge domain in USA.

This tool parses an input chemical formula and predicts the number and types of chemical bonds present in them with its normal boiling point and few other things. The predicted data can then be comparing with experimental results.The tool works without consulting molecular orbital theory (MOT) or a chemical database. Just enter a set of formulae 'C_xH_y'.

'Hydrocarbons Parser' tool freely accessible online in the Tools section of Minerazzi at <http://www.minerazzi.com/tools/hydrocarbons/parser.php>.

2.Bond Order Calculator TOOL LAUNCHED IN THE USA:

On 20th Dec-2018, a new and practical applications of my 04 invented formulae and 01 innovative teaching time-economic methodologies on 'Calculation of Bond Order without Molecular orbital theory (MOT)' came in the form of a tool namely 'Bond Order Calculator' made by Dr.Edel Garcia, a multidisciplinary scientist and Administrator of Minerazzi.com, Bayamon, Puerto Rico, USA to calculate and discriminate of chemical bonds in hydrocarbons. Dr.Garcia the creator of the Minerazzi Project, which started at the now defunct local Microsoft Innovation Center. Minerazzi (<http://www.minerazzi.com>) is a platform owned by Dr.Garcia and for building topic-specific search engines on any field or knowledge domain in USA. This tool computes bond orders of diatomic species having up to 20 electrons, without using Molecular Orbital Theory. This software tool is useful for chemistry educators, scholars, and students interested in bond order theory and its applications.'Bond Order Calculator' tool freely accessible online in the Tools section of Minerazzi at <http://www.minerazzi.com/tools/bond-order/calculator.php>. **Tools Indexed in the 'City College of New York',US**
Link : [Computational - Chemistry - LibGuides at City College Libraries \(cuny.edu\)](#).

chem.libretexts.org, **University of California, UC DAVIS, USA, Digital Link:**

Innovative Time Economic Teaching methodologies indexed in the American Chemical Society's Digital index, USA and also in the 'ChemWiki' by the Prof. Delmar Larsen, Founder and Director of the 'ChemWiki', Department of Chemistry, University of California, USA based upon the work supported by

the National Science Foundation (NSF) under Grant Number 1246120 under the supervision of Prof. Delmar S Larsen, Associate Prof. and Principal Investigator of the 'ChemWiki' Project, University of California, Davis (23rd University as per 2015 World Ranking among top 200 universities). NSF are the funding source for approximately 24 percent of all federally supported basic research conducted by America's colleges and universities.

Digital Links:

1.PREDICTING THE BOND-ORDER OF DIATOMIC SPECIES

https://chem.libretexts.org/Core/Physical_and_Theoretical_Chemistry/Electronic_Structure_of_Atoms_and_Molecules/Predicting_the_Bond-Order_of_Diatomic_Species

2.PREDICTING THE HYBRIDIZATION OF SIMPLE MOLECULES

https://chem.libretexts.org/Core/Physical_and_Theoretical_Chemistry/Electronic_Structure_of_Atoms_and_Molecules/Predicting_the_Hybridization_of_Simple_Molecules

3.PREDICTING THE HYBRIDIZATION OF HETEROCYCLIC COMPOUNDS

https://chem.libretexts.org/Core/Organic_Chemistry/Fundamentals/Bonding_in_Organic_Compounds/Predicting_the_Hybridization_of_Heterocyclic_Compounds

4.MAGNETIC BEHAVIOR OF DIATOMIC SPECIES

https://chem.libretexts.org/Core/Physical_and_Theoretical_Chemistry/Electronic_Structure_of_Atoms_and_Molecules/Magnetic_Behavior_of_Diatomic_Species

5.CALCULATING OF π -BONDS, Σ -BONDS, SINGLE AND DOUBLE BONDS IN STRAIGHT CHAIN AND CYCLOALKENE SYSTEMS

https://chem.libretexts.org/Core/Organic_Chemistry/Fundamentals/Bonding_in_Organic_Compounds/Calculating_of_%CF%80-bonds%2C_%CF%83-Bonds%2C_single_and_double_bonds_in_Straight_Chain_and_Cycloalkene_Systems

6.IDENTIFYING AROMATIC AND ANTI-AROMATIC COMPOUNDS

https://chem.libretexts.org/Core/Organic_Chemistry/Fundamentals/Bonding_in_Organic_Compounds/Identifying_Aromatic_and_Anti-Aromatic_Compounds

7.PREDICTING THE BOND-ORDER OF OXIDES BASED ACID RADICALS

https://chem.libretexts.org/Core/Physical_and_Theoretical_Chemistry/Electronic_Structure_of_Atoms_and_Molecules/Predicting_the_Bond-Order_of_Oxides_based_Acid_Radicals

8.EVALUATING SPIN MULTIPLICITY

https://chem.libretexts.org/Core/Physical_and_Theoretical_Chemistry/Electronic_Structure_of_Atoms_and_Molecules/Evaluating_Spin_Multiplicity

9. Prediction of Aromatic, Anti Aromatic and Non Aromatic Character of Heterocyclic Compounds along with their Omission Behavior- Innovative Mnemonics

https://chem.libretexts.org/Core/Physical_and_Theoretical_Chemistry/Electronic_Structure_of_Atoms_and_Molecules/Prediction_of_Aromatic%2C_Anti_Aromatic_and_Non_Aromatic_Character_of_Heterocyclic_Compounds_along_with_their_Omission_Behavior- Innovative_Mnemonics

BOOK PUBLISHED:

1.TITLE: 'Innovative Mnemonics in Chemical Education: A Handbook for Classroom Lectures'

Publication Date: 11Sept 2019 (Online) & 1st Nov-2019 (Hard Back)

Publisher: Cambridge Scholars Publishing, Lady Stephenson Library, Newcastle upon Tyne,NE6 2PA, UK, ISBN (10): 1-5275-3922-9; ISBN (13): 978-1-5275-3922-8

Link: <https://www.cambridgescholars.com/innovative-mnemonics-in-chemical-education>.

Indexed:

British Library Cataloguing in Publication Data. A catalogue record for this book is available from the British Library.

Link:

https://bll01.primo.exlibrisgroup.com/discovery/search?query=any,contains,Arijit%20Das%20Innovative%20Mnemonics%20in%20Chemical%20Education:%20A%20Handbook%20for%20Classroom%20Lectures&tab=LibraryCatalog&search_scope=Not_BL_Suppress&vid=44BL_INST:BLL01&lang=en&offset=0

Stanford University, US: <https://searchworks.stanford.edu/view/14279378>

2. TITLE: 'Mixed Ligand complexes of 1,1-dithiolates and Nitrogen Donors',

Publication Year: 2016.

Publisher: Lambert Academic Publishing (LAP), Germany,

ISBN- 978-3-659-90980-1

American Chemical Society (ACS) Conferred Recognition to Dr. Arijit Das's Invented 38 Formulae in the ACS Spring-2023

Entitled 'Formulae Based Time Economic Mnemonics in Chemical Education' in the ACS conference 'ACS Spring 2023' on March 26, 2023. The virtual presentation of Dr. Das in the ACS Spring 2023 indexed in the ACS scimeetings ([Link: https://doi.org/10.1021/scimeetings.3c00021](https://doi.org/10.1021/scimeetings.3c00021)).



THIS IS TO CERTIFY THAT

Arijit Das

ATTENDED

ACS SPRING 2023

AND PRESENTED THE FOLLOWING PAPER

Title: CHED 3807510: Formulae based time economic mnemonics in chemical education

Session: General Posters

Location: Virtual Only Virtual Session



Date and Time: 3/26/2023 12:00:00 PM

Presentation Type: Poster - Virtual



LIZ HUH
DIRECTOR, MEETINGS AND EVENTS


Copyright office, Govt. of India, New Delhi:

On 7th Aug 2018, 13th Nov 2019, Nov 22, 2023, and Dec 06 2023 Copyright office, Govt. of India, New Delhi gave me three copyright registration for innovational research work in field of Chemical Education on my all invented 34 formulae bearing Registration number L-77140/2018, L-86934/2019, L-136608/2023, and L-137193/2023 respectively.

  **Extracts
from the Register
of Copyrights**

Dated : 07/08/2018



1. Registration Number	: L-77140/2018
2. Name, address and nationality of the applicant	: DR. ARIJIT DAS, ASSISTANT PROFESSOR, DEPT OF CHEMISTRY, RAMTHAKUR COLLEGE, AGARTALA, TRIPURA-799003INDIAN
3. Nature of the applicant's interest in the copyright of the work	: OWNER
4. Class and description of the work	: LITERARY/ DRAMATIC WORK
5. Title of the work	: INNOVATION OF PEDAGOGIES IN THE FIELD OF CHEMICAL EDUCATION
6. Language of the work	: ENGLISH
7. Name, address and nationality of the author and if the author is deceased, date of his decease	: DR. ARIJIT DAS, ASSISTANT PROFESSOR, DEPT OF CHEMISTRY, RAMTHAKUR COLLEGE, AGARTALA, TRIPURA-799003INDIAN
8. Whether the work is published or unpublished	: PUBLISHED
9. Year and country of first publication and name, address and nationality of the publisher	: 2013 USASCIENCE AND EDUCATION PUBLISHING - WORLD JOURNAL OF CHEMICAL EDUCATION, SCIENCE AND EDUCATION PUBLISHING ADDRESS: 10 CHESWOLD BLVD., 1D, NEWARK, DE, 19713, UNITED STATES.- 19713USA
10. Years and countries of subsequent publications, if any, and names, addresses and nationalities of the publishers	: 2014 USASCIENCE AND EDUCATION PUBLISHING - WORLD JOURNAL OF CHEMICAL EDUCATION, SCIENCE AND EDUCATION PUBLISHING ADDRESS: 10 CHESWOLD BLVD., 1D, NEWARK, DE, 19713, UNITED STATES.-019713-19713USA 2013 INDIAINTERNATIONAL ORGANIZATION OF SCIENTIFIC RESEARCH- IOSR JAC, OSR JOURNALS DANSA, GHAZIABAD, UP, PIN: 201015, INDIA-201015INDIAN 2017 USAGLOBAL JOURNALS INC. - GLOBAL JOURNAL OF SCIENCE FRONTIER RESEARCH B CHEMISTRY, GLOBAL JOURNALS™ HEADQUARTERS 945TH CONCORD STREETS FRAMINGHAM MASSACHUSETTS PIN: 01701 UNITED STATES OF AMERICA-1701USA 2015 INDIAINDIAN CHEMICAL SOCIETY, 92, ACHARYA PRAFULLA CHANDRA ROAD KOLKATA-700 009, WEST BENGAL, INDIA-700009INDIAN
11. Names, addresses and nationalities of the owners of various rights comprising the copyright in the work and the extent of rights held by each, together with particulars of assignments and licences, if any	: DR. ARIJIT DAS, ASSISTANT PROFESSOR, DEPT OF CHEMISTRY, RAMTHAKUR COLLEGE, AGARTALA, TRIPURA-799003INDIAN
12. Names, addresses and nationalities of other persons, if any, authorised to assign or licence of rights comprising the copyright	: N.A.
13. If the work is an 'Artistic work', the location of the original work, including name, address and nationality of the person in possession of the work. (In the case of an architectural work, the year of completion of the work should also be shown).	: N.A.
14. If the work is an 'Artistic work', whether it is registered under the Designs Act 2000 if yes give details.	: N.A.
15. If the work is an 'Artistic work', capable of being registered as a design under the Designs Act 2000 whether it has been applied to an industrial process and, if yes, the number of times	: N.A.
16. 	: 17436/2017-CO/L 06/12/2017 Date 06/12/2017


DEPUTY REGISTRAR OF COPYRIGHTS

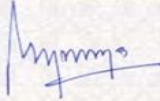


Dated : 13/11/2019

1. Registration Number	: L-86934/2019
2. Name, address and nationality of the applicant	: DR ARIJIT DAS , DEPARTMENT OF CHEMISTRY, BIR BIKRAM MEMORIAL COLLEGE (BBMC), AGARTALA, TRIPURA (W), TRIPURA, INDIA, PIN: 799004 -799004 INDIAN
3. Nature of the applicant's interest in the copyright of the work	: OWNER
4. Class and description of the work	: LITERARY/ DRAMATIC WORK
5. Title of the work	: LONE PAIR ELECTRON DISCRIMINATE HYBRIDIZATION WITH AROMATIC AND ANTI AROMATIC BEHAVIOR OF HETEROCYCLIC COMPOUNDS - INNOVATIVE MNEMONICS
6. Language of the work	: ENGLISH
7. Name, address and nationality of the author and if the author is deceased, date of his decease	: DR ARIJIT DAS , DEPARTMENT OF CHEMISTRY, BIR BIKRAM MEMORIAL COLLEGE (BBMC), AGARTALA, TRIPURA (W), TRIPURA, INDIA, PIN: 799004 -799004 INDIAN
8. Whether the work is published or unpublished	: PUBLISHED
9. Year and country of first publication and name, address and nationality of the publisher	: 2018 USA WORLD JOURNAL OF CHEMICAL EDUCATION , SCIENCE AND EDUCATION PUBLISHING, 10 CHESWOLD BLVD., NEWARK, DE, UNITED STATES.- US
10. Years and countries of subsequent publications, if any, and names, addresses and nationalities of the publishers	: 2018 USA WORLD JOURNAL OF CHEMICAL EDUCATION , SCIENCE AND EDUCATION PUBLISHING, 10 CHESWOLD BLVD., NEWARK, DE, UNITED STATES.- US
11. Names, addresses and nationalities of the owners of various rights comprising the copyright in the work and the extent of rights held by each, together with particulars of assignments and licences, if any	: DR ARIJIT DAS , DEPARTMENT OF CHEMISTRY, BIR BIKRAM MEMORIAL COLLEGE (BBMC), AGARTALA, TRIPURA (W), TRIPURA, INDIA, PIN: 799004 -799004 INDIAN
12. Names, addresses and nationalities of other persons, if any, authorised to assign or licence of rights comprising the copyright	: N.A.
13. If the work is an 'Artistic work', the location of the original work, including name, address and nationality of the person in possession of the work. (In the case of an architectural work, the year of completion of the work should also be shown).	: N.A.
14. If the work is an 'Artistic work' which is used or capable of being used in relation to any goods or services, the application should include a certification from the Registrar of Trade Marks in terms of the provision to Sub-Section (i) of Section 45 of the Copyright Act, 1957.	: N.A.
15. If the work is an 'Artistic work', whether it is registered under the Designs Act 2000 if yes give details.	: N.A.
16. If the work is an 'Artistic work', capable of being registered as a design under the Designs Act 2000 whether it has been applied to an article, or to an industrial process and ,if yes ,the number of times	: N.A.
17.	



12880/2019-CO/L
13/08/2019
Da 13/08/2019



DEPUTY REGISTRAR OF COPYRIGHTS

World Championship-2018 in Chemical Education (Innovative Mnemonics):

International Media: USA News CORP Published NEWS -

[Link: USA NEWS CORP Dr. Arijit Das from India wins World Championship - 2018 in Chemical Education \(Innovative Mnemonics\) out of 86 countries](#)

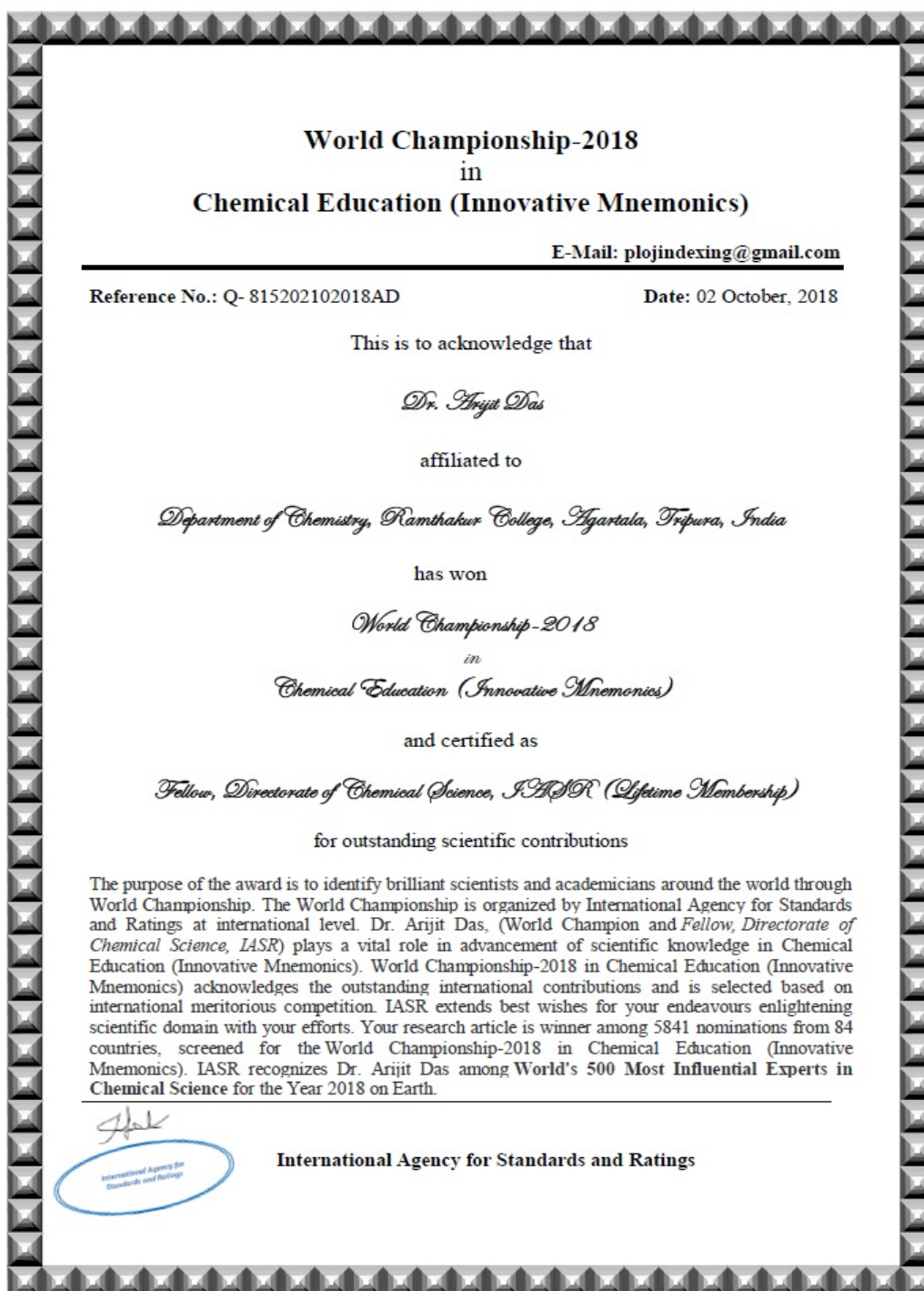
World Champion Dr. Arijit Das is most important asset for India in Chemical Education (Innovative Mnemonics) India in Chemical Education (Innovative Mnemonics), recognized by International Agency for Standards and Ratings. World Champion Dr. Arijit Das is now recognized as Father of modern Chemical Education (Innovative Mnemonics).

The purpose of the award is to identify brilliant scientists and academicians around the world through World Championship. **The World Championship is organized by International Agency for Standards and Ratings at international level. Dr. Arijit Das, (World Champion and Fellow, Directorate of Chemical Science, IASR) plays a vital role in advancement of scientific knowledge in Chemical Education (Innovative Mnemonics).**

World Championship-2018 in Chemical Education (Innovative Mnemonics) acknowledges the outstanding international contributions and is selected based on international meritorious competition. IASR extends best wishes for your endeavours enlightening scientific domain with your efforts. Your research article is winner among 5841 nominations from 84 countries, screened for the World Championship-2018 in Chemical Education (Innovative Mnemonics). IASR recognizes Dr. Arijit Das among World's 500 Most Influential Experts in Chemical Science for the Year 2018 on Earth.

World champion Dr. Arijit Das endorses scientific meetings and conferences on Chemical Education (Innovative Mnemonics), and can be contacted for key note speeches on Chemical Education (Innovative Mnemonics) and industrial collaborations. The World Championship is organized by International Agency for Standards and Ratings at international level. **Universities are in a race to reconstruct their syllabus by adding applications of scientific contribution by World champion- Dr. Arijit Das.** Under expert guidance of World champion Dr. Arijit Das, Universities can now contribute better in nation building. Proper supervision by World champion Dr. Arijit Das will help to allocate public funds and research grants more focused. **Universities**

can contact world champion Dr. Arijit Das for selection committees/ board on promotion and recruitment. The world champion Dr. Arijit Das can be contacted for execution of programs related to Chemical Education (Innovative Mnemonics). Researchers and students can enjoy expert career guidance on latest trends, jobs and career opportunities from world champion Dr. Arijit Das.



Appreciation Letters received through email from the different scientific societies and from the different eminent fellow of IIT's and four (04) different Abroad & Indian Universities after achieved the Copyright registration Certificate from the Govt.of India through innovational research in the field of Chemical Education

Appreciation Letter Received from the American Chemical Society, NY, USA:

8/15/2018

Gmail - Re: Cordial request to send your most valuable feedback on getting my Copyright registration certificate from the Govt. of India {1...



DR ARIJIT DAS <arijitdas78chem@gmail.com>

Re: Cordial request to send your most valuable feedback on getting my Copyright registration certificate from the Govt. of India {1182158}

ACS MemberServices <service@acs.org>
To: arijitdas78chem@gmail.com

Tue, Aug 14, 2018 at 7:39 PM

Dear Dr. Das,

Congratulations on attaining your copyright registration. Thank you for notifying us of your accomplishment.

We appreciate your service to the society and the importance of your copyright to the benefit of the chemistry enterprise and its practitioners. We believe that members play a vital role in fulfilling the society's mission of improving people's lives through the transforming power of chemistry. You have certainly contributed to that mission.

We wish you continued success and look forward to your future contributions.

Best regards,

Michael Fry
American Chemical Society
Member Services
service@acs.org
phone:1-800-333-9511
fax: 1-614-447-3671

From the Vinh University, Ministry of Education and Training, Vinh City, Vietnam:

**Ministry of Education and Training
Vinh University
School of Natural Science
Department of Teaching Methods of Chemistry
182 - Le Duan Street, Vinh City, Vietnam**



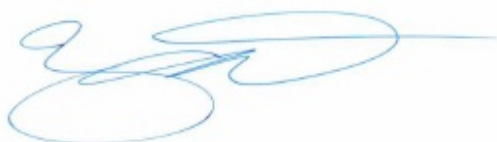
**Assoc. Prof., Cao Cu Giac, PhD.
giacc@vinhuni.edu.vn
Head of Department of Teaching Methods of Chemistry
Chief Guest Editor of the Special Issue:
Teaching Science in the 21st Century
World Journal of Chemical Education (WJCE), USA
<http://www.sciepub.com/journal/wjce>**

August 20, 2018

Dear Dr., Arijit Das,
Assistant Professor,
Deptt. of Chemistry,
Ramthakur College, Agartala, Tripura(W),
Tripura, India, Pin-799003.

We are very pleased to inform you that your article was published by the WJCE in a special issue titled "Teaching Science in the 21st Century." Your contributions in the article have greatly boosted the teaching of chemistry. We hope you will have more research in the near future, contributing to the development of the journal.

Best regards,



Cao Cu Giac

From the Indian Chemical Society (ICS):

22/08/2018 Cordial request to send your most valuable feedback on getting my Copyright registration certificate from the Govt. of India - arijitdas78c...



INDIAN CHEMICAL SOCIETY

to me

Aug 21 (1 day ago)

Dr.Arijit Das, Ph.D.(Inorganic Chemistry)
MACS (Invited,USA), FICS, FISC, FIAFS (India)
Assistant Professor,
Deptt.of Chemistry,
Ramthakur College, Agartala, Tripura(W),
Tripura, India, Pin-799003

Dear Professor Das,

This is indeed a matter of pride and privilege to acknowledge that you, Dr. Arijit Das being a member (F/ 7158) of the Indian Chemical Society has achieved such an honour of having the **Ownership from the copyright office, Govt. of India, New Delhi**. I, on behalf of the Indian Chemical Society wish you all successes in future in order to uphold the name and fame of the Indian Chemical Society.

Dr. Rahul Bhattacharya
Executive Officer
Indian Chemical Society

From the Indian Science Congress Association (ISCA):

8/16/2018

Gmail - Cordial request to send your most valuable feedback on getting my Copyright registration certificate from the Govt. of India



DR ARIJIT DAS <arijitdas78chem@gmail.com>

Cordial request to send your most valuable feedback on getting my Copyright registration certificate from the Govt. of India

Dr. P.P. Mathur <ppmathur@hotmail.com>
To: DR ARIJIT DAS <arijitdas78chem@gmail.com>

Wed, Aug 15, 2018 at 11:36 PM

Dear Dr. Das:

Hearty Congratulations. I hope you will be doing more innovations.

Regards,

Sincerely,

PP Mathur

Prof. Premendu P. Mathur
General Secretary, ISCA,
(Scientific Activities)
(Professor & Head, Department of Biochemistry & Molecular Biology)
School of Life Sciences, Pondicherry University,
Kalapet, Puducherry - 605 014

From School of Chemistry, University of Hyderabad:

8/13/2018

Gmail - Response from Samar K. Das: Request to send your most valuable feedback on getting my Copyright registration certificate from...



DR ARIJIT DAS <arijitdas78chem@gmail.com>

Response from Samar K. Das: Request to send your most valuable feedback on getting my Copyright registration certificate from the Govt. of India

samar das <samar439@gmail.com>

Sun, Aug 12, 2018 at 12:22 PM

To: DR ARIJIT DAS <arijitdas78chem@gmail.com>

To:

Dr.Arijit Das, Ph.D.(Inorganic Chemistry)
MACS (Invited,USA), FICS, FISC, FIAFS (India)
Assistant Professor,
Deptt.of Chemistry,
Ramthakur College, Agartala, Tripura(W),
Tripura, India, Pin-799003.

Dear Arijit:

I must begin with my heartiest congratulations to you, on achieving ownership from the copyright office, Govt. of India, New Delhi bearing registration number L-77140/2018 for your 19 innovative teaching methodologies and 39 invented formulas in Chemistry under the title "INNOVATION OF PEDAGOGIES IN THE FILED OF CHEMICAL EDUCATION".

I feel that it is a great achievement! Keep it up. I wish that you get a regular faculty position (associate professor) at Tripura University.

Congratulations again.

All the best.

With best wishes,

Sir

Professor Samar K. Das, FASc.
School of Chemistry
University of Hyderabad
Hyderabad - 500046
India

Phone:

Cell: (0)9959425259

+91-40-2313-4853 (work)

+91-40-2301-0536 (residence)

From IIT Kanpur:

8/13/2018 Gmail - Copyright Registration Certificate of Dr Arijit Das for his 39 invented formulae under the title "INNOVATION OF PEDAGOGIES IN...



DR ARIJIT DAS <arijitdas78chem@gmail.com>

Copyright Registration Certificate of Dr Arijit Das for his 39 invented formulae under the title "INNOVATION OF PEDAGOGIES IN THE FILED OF CHEMICAL EDUCATION"

RNM <mm@iiserkol.ac.in>
To: DR ARIJIT DAS <arijitdas78chem@gmail.com>

Sun, Aug 12, 2018 at 6:05 PM

Dear Dr Das,
Hearty Congratulations!
Best wishes,
Yours sincerely,

Prof. R. N. Mukherjee
Emeritus Fellow, Department of Chemistry
Indian Institute of Technology Kanpur
Kanpur 208 016, INDIA
Tel.: +91 512 259 7437
Fax: +91 512 259 7436
<http://home.iitk.ac.in/~rnm>

(Sent using a mobile device)
[Quoted text hidden]

From IIT Kharagpur:

8/13/2018 Gmail - Copyright Registration Certificate of Dr Arijit Das for his 39 invented formulae under the title "INNOVATION OF PEDAGOGIES IN...



DR ARIJIT DAS <arijitdas78chem@gmail.com>

Copyright Registration Certificate of Dr Arijit Das for his 39 invented formulae under the title "INNOVATION OF PEDAGOGIES IN THE FILED OF CHEMICAL EDUCATION"

Pratim Chattaraj <pratim.chattaraj@gmail.com>
To: DR ARIJIT DAS <arijitdas78chem@gmail.com>

Tue, Aug 7, 2018 at 8:59 PM

Congrats !
[Quoted text hidden]

Prof. P. K. Chattaraj, FASc, FNA, FNASc

J. C. Bose National Fellow

Professor, Department of Chemistry

Convener: Centre for Theoretical Studies, Kharagpur local chapter of INSA

Indian Institute of Technology Kharagpur

Kharagpur – 721302. Email: pratim.chattaraj@gmail.com

From University of Calcutta:

8/13/2018 Gmail - Copyright Registration Certificate of Dr Arijit Das for his 39 invented formulae under the title "INNOVATION OF PEDAGOGIES IN...



DR ARIJIT DAS <arijitdas78chem@gmail.com>

Copyright Registration Certificate of Dr Arijit Das for his 39 invented formulae under the title "INNOVATION OF PEDAGOGIES IN THE FILED OF CHEMICAL EDUCATION"

gurunath mukherjee <mukherg@rediffmail.com>
To: DR ARIJIT DAS <arijitdas78chem@gmail.com>

Wed, Aug 8, 2018 at 10:50 AM

Congratulations Dr Arijit
Please go ahead
Best wishes
Yours
G N Mukerjee

Prof. G. N. Mukherjee (Retd-)

Sir Rashbehary Ghose Professor of Chemistry

Department of Chemistry

University of Calcutta, 92, A. P. C. Road, Kolkata 700 009

India. Email: mukherg@rediffmail.com

From University of Kalyani:

8/13/2018 Gmail - Copyright Registration Certificate of Dr Arijit Das for his 39 invented formulae under the title "INNOVATION OF PEDAGOGIES IN...



DR ARIJIT DAS <arijitdas78chem@gmail.com>

Copyright Registration Certificate of Dr Arijit Das for his 39 invented formulae under the title "INNOVATION OF PEDAGOGIES IN THE FILED OF CHEMICAL EDUCATION"

Nilashis Nandi <nilashisnandi@yahoo.com>
Reply-To: Nilashis Nandi <nilashisnandi@yahoo.com>
To: DR ARIJIT DAS <arijitdas78chem@gmail.com>

Wed, Aug 8, 2018 at 4:24 PM

Congratulations for your achievement. Wish you all the best for future.

best regards
N. Nandi

Dr. Nilashis Nandi

Professor

Department of Chemistry

University of Kalyani

Kalyani, Nadia, West Bengal, 741235

India

Alternate e-mail: nilashisnandi@rediffmail.com ;

nilashisnandi@gmail.com

Website: <https://sites.google.com/site/nilashisnandi/>

M: 9433056943 (India: +91)

[Quoted text hidden]



DEPARTMENT OF CHEMISTRY

DAVIS, CALIFORNIA 95616

ASSOC. PROFESSOR DELMAR S. LARSEN

Department of Chemistry
University of California
One Shields Avenue
Davis, CA 95616
Telephone: (530) 754-9075
FAX: (530) 752-8995

e-mail Address: dlarsen@ucdavis.edu

Dr. Arijit Das, Ph.D.
Assistant Professor, Department of Chemistry
Ramthakur College
Agartala, Tripura (West), Tripura, India, Pin-799003

Dear Prof. Das:

As the founder and current Director of the University of California, Davis ChemWiki project, I would like to give my cordial congratulations to you for your all innovative teaching methodologies and formulae that you have formulated within the field of Chemical Education. I am especially appreciative of you donating these materials to the ChemWiki earlier this year.

I have gone through your all methodologies (Predicting the Bond-Order of Diatomic Species without MOT, Hybridization of Simple Molecules and Heterocyclic Compounds, Magnetic Behavior of Diatomic Species, Bond-Order of Oxides based Acid Radicals, Evaluating Spin Multiplicity, Identifying Aromatic and Anti-Aromatic Compounds, Calculating of π -bonds, σ -bonds, single and double bonds in Straight Chain and Cycloalkene Systems) and found that they are very much helpful for teaching at undergraduate, senior undergraduate as well as post graduate level students to make chemical education metabolic, simplest and time economic. I have attached the current ChemWiki URLs that link to your content in this letter.

While I do not have solid numbers indicating the efficacy of your pages specifically, a recent Chemistry Education Research and Practice (DOI: 10.1039/c5rp00084j) shows that the Wikitexts constructed from ChemWiki content like yours was statistically capable of substituting for conventional textbooks. Since integration of your content into the ChemWiki, it has garnered approximately 0.01% of our traffic. While this may appear a small and perhaps a negligible impact, it is very much not. With our current 80 million annual visitor traffic, your content has been accessed by close to 8,000 visitors to date each with your name and the Ramthakur College affiliation clearly indicated. As the traffic to the ChemWiki and Steve's content grows, the dissemination of your (and Ramthakur College) educational efforts correspondingly increase.

I look forward to many positive future discussions. Thank you.

Regards,

Delmar Larsen

Letter of Appreciations from Different Eminent Personalities

Dr. V. Jagannadham Ph.D., D.Sc.

91-9866987955

jagannadham1950@yahoo.com

Editor-in-Chief

World Journal of Chemical Education

(Science & Educational Publishing, USA)

http://www.sciepub.com/journal/WJCE/EditorialBoard#.Ui6C2tI_duI

Professor (Retired)

Department of Chemistry

Osmania University


Hyderabad-500007

India

November 3, 2015

To whomsoever it may concern

I have great pleasure in saying about **Dr. Arjit Das** a few words. He is doing highly commendable job for the field of chemical education. May God bless him for more success in the coming years. His painstaking efforts in this direction will benefit the freshmen students a lot. I wish him all success.



V. Jagannadham

From:

Prof. G. N. Mukherjee

**Sir Rashbehary Ghose Professor of Chemistry (Retired)
University College of Science, University of Calcutta
92, Acharya Prafulla Chandra Road, Kolkata-700 009
e - mail: mukherg@rediffmail.com**

Date: 03-11-2015

To whom it may concern

Recent publications of **Dr. Arijit Das, M.Sc., Ph.D.**, in the field of Chemical Education deserve high appreciation. The innovative methodologies and formulas derived by Dr. Das are useful for both teaching and learning processes.

I like to see him doing further works in this field and at the same time venturing into the new emerging areas of chemistry.



Prof. G. N. Mukherjee

Residence: Ramakrishna Dham, 11, Snuff Mill Street, Belgharia, Kolkata-700 056. India. Ph: 033-2564-4215



School of Chemistry
University of Hyderabad
Hyderabad - 500 046

Prof. Sa
FASc, FAPAS

Fax : +91-(0)40-2301-2460
Email : skdas@uohyd.ac.in
Web : <http://chemistry.uohyd.ac.in/~skd/>

To
Dr. Arijit Das, Ph.D. (Inorganic Chemistry)
MACS (Invited, USA), FICS, FISC, FIAFS (India)
Assistant Professor, Deptt. of Chemistry,
Ramthakur College, Agartala, Tripura(W),
Tripura, India, Pin-799003.

November 04, 2015

Dear Dr. Das,

First of all, I would like to express my cordial congratulations to you and also your appreciative efforts to make Chemical Education interesting and time economic by establishing your innovative 16 time economic teaching methodologies and 36 new formulae, that you have formulated within the field of Chemical Education.

I have gone through these documents and found that they are very helpful for teaching undergraduate as well as post graduate chemistry students.

In fact, I have forwarded these documents to my colleagues here (School of Chemistry, University of Hyderabad), so that these innovations of teaching methodology can be introduced in our regular (teaching) syllabus.

I wish that these new innovative methods would come in Inorganic and Organic text books of undergraduate, senior under graduate and post graduate levels.

Lastly, I convey my best wishes for taking the initiative to make the book 'Press Review' (**Time Economic Informatics Database In Chemical Education**) and I think, this book will stimulate our next generation to carry out their research work in the field of Chemical Education.

Let me congratulate to you once again for your all appreciative works in the field of Chemical Education for our next generation.

With best wishes.

Sincerely yours,

S.K. Das
(Samar K. Das) 04/11/2015

Prof. Samar K. Das
School of Chemistry
University of Hyderabad
Hyderabad-500 046, INDIA.

Prof. R.K.Nath. M.Sc. Ph.D. (Cal)
DEPARTMENT OF CHEMISTRY
TRIPURA UNIVERSITY
(A Central University)
Suryamaninagar 799022
West Tripura
India



Phone:0381-2379076
Fax: 0381- 2374802
Ph:09436508446
Email:rkmath1995@gmail.com

To
Dr.Arijit Das,Ph.D.
MACS (Invited,USA), FICS (India)
Assistant Professor, Deptt.of Chemistry,
Ramthakur College, Agartala, Tripura(W),
Tripura, India, Pin-799003.

Date:05.11.2015

Dear Dr. Arijit Das,

First of all I would like to give my cordial congratulations to you for your enthusiastic effort to make Chemical Education metabolic interesting and time economic by established innovative 16 time economic teaching methodologies and 36 new formulae.

I have gone through your all documents and found that they are very helpful for teaching and learning at undergraduate, senior undergraduate as well as post graduate level.

I desire that these new methods will come in Inorganic and Organic text books of UG and PG level.

Lastly I express my best wishes for taking this initiative to make the book 'Press Review'(Time Economic Informatics Database In Chemical Education) for our next generation.

My best wishes are always with you. Pl move forward.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'R.K. Nath'.

Professor R.K.Nath
(HEAD)
Department of Chemistry
Tripura University
Suryamaninagar, India

TRIPURA UNIVERSITY

(A CENTRAL UNIVERSITY)

Suryamaninagar, Agartala

Tripura

INDIA

PIN - 799130



Phone : (0381) 237 4801

237 5454

237 4805

237 5355

Fax : (0381) 237 4802

237 4807

e-mail : tripurauniversity@rediffmail.com

website : www.tripurauniversity.in

LETTER OF APPRECIATION

It is my pleasure to appreciate the works being done by Dr. Arijit Das, Assistant Professor in Chemistry in Ram Thakur College, Agartala. He was my direct student of M.Sc. and Ph.D. Dr. Das has potential to do some thing for easy understanding and time saving in tackling the problems in chemistry for students of different standards. He has research attitude and able to think and materialize new ideas in chemistry. He has hard working and goal achieving nature.

I wish him success in his all endeavours in present and future.

Prof. M. K. Singh

Department of Chemistry

Tripura University

Suryamaninagar-799 022

Tripura West

Dr. M. K. Singh

Professor

Department of Chemistry

Tripura University

Suryamaninagar, Tripura, India.



University of Kalyani
FACULTY OF SCIENCE
Department of Chemistry

✉ Dr. Nilashis Nandi
Professor
Department of Chemistry
Kalyani, 741 235, West Bengal, India

To
Dr. Arijit Das,
Deptt. of Chemistry,
Ramthakur College, Agartala, Tripura(W),
Tripura, India, Pin-799003.

16.11.2015

Dear Dr. Das,

Thanks for your email, the attached index and preface of your forthcoming book titled 'Press Review' (Time Economic Informatics Database in Chemical Education). I understand that you summarized here the press releases on your works on the methodology of study and learning chemistry, starting from high school level which includes development of teaching methodologies and formulae development. It is very important to raise eagerness about chemistry among young students and I hope this book will be of benefit of students. I wish you all the best in your endeavor.

Thanking you,
Sincerely yours,

Nilashis Nandi

Nilashis Nandi.

'Letter of Merit and Appreciation from the founder and Head, Dr.Edel Garcia, minerazzi.com, USA'

December 26, 2018

Dr. Arijit Das, Ph.D.
Assistant Professor, Department of Chemistry
Ramthakur College
Agartala, West Tripura, India

RE: Letter of Merit and Appreciation

Dear Professor Das:

As the founder and head of Minerazzi.com, I would like to acknowledge that we have built two of our software tools, The Hydrocarbons Parser and The Bond Order Calculator, inspired in your set of innovative and time economic formulae for chemical education.

Your methodologies are certainly novel. More important, they are suitable for designing computer-based learning (CBL) activities and for developing computer programs for solving chemistry problems.

We believe that students who know how to write computer programs for solving chemistry problems are better prepared when taking quantitative courses like analytical chemistry, instrumental analysis, chemometrics, and computational chemistry. They are in general better prepared for multidisciplinary research and post-doctoral work.

Serve this Letter of Merit and Appreciation to describe our gratitude towards you. We look forward to develop new tools inspired in your methodologies, for educators, scholars, and chemistry students to enjoy.

Regards

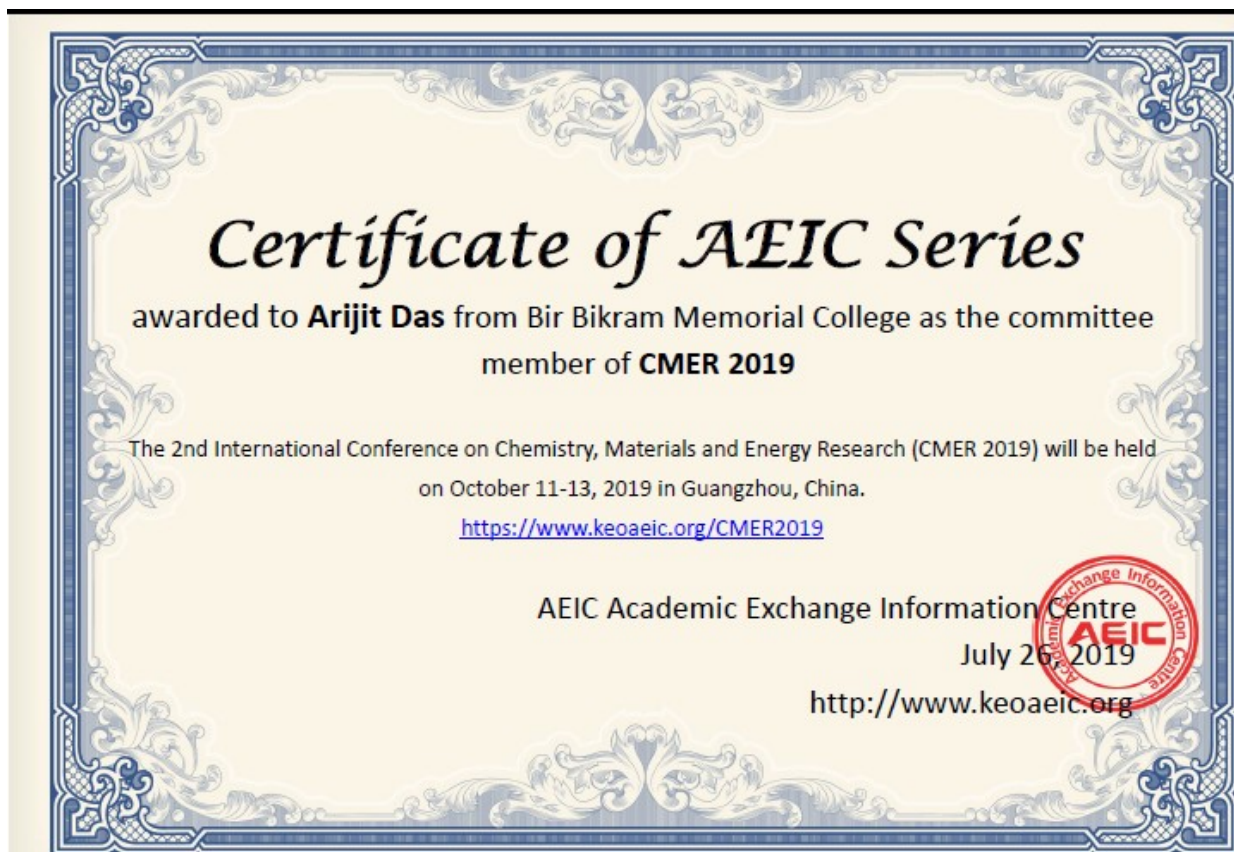
Dr. Edel Garcia, Ph.D.
Founder, Minerazzi.com
admin@minerazzi.com

02/08/2019 12:03:17

Place: Hyderabad, India

August 07, 2019

Invitation as Committee Member in the 2nd International CMER Conference (Chemistry, Materials and Energy) held on Guangzhou, China, dated October 11-13, 2019 received from the committee of CMER 2019, China dated 23rd July 2019 and joined 26th July 2019 .



**Cambridge
Scholars
Publishing**

Lady Stephenson Library
Newcastle upon Tyne
NE6 2PA
United Kingdom

admin@cambridgescholars.com
www.cambridgescholars.com
Fax +44 (0)191 265 2056

Cambridge Scholars
Publishing is registered
in the United Kingdom.
Companies House
Reg. Number: 4329778
VAT Number: 278590787

Helen Edwards
Cambridge Scholars Publishing
Lady Stephenson Library
Newcastle-upon-Tyne
NE6 2PA

October 8th 2019

To whom it may concern,

This letter is to confirm that Dr. Arijit Das has been listed as a member of our Chemistry Editorial Advisory Board since October 2019, after his application was found to meet all of our requirements.

These boards have been established to help CSP expand their current author community and scope of titles.

If you have any further queries please do not hesitate to contact me.

Kind regards,

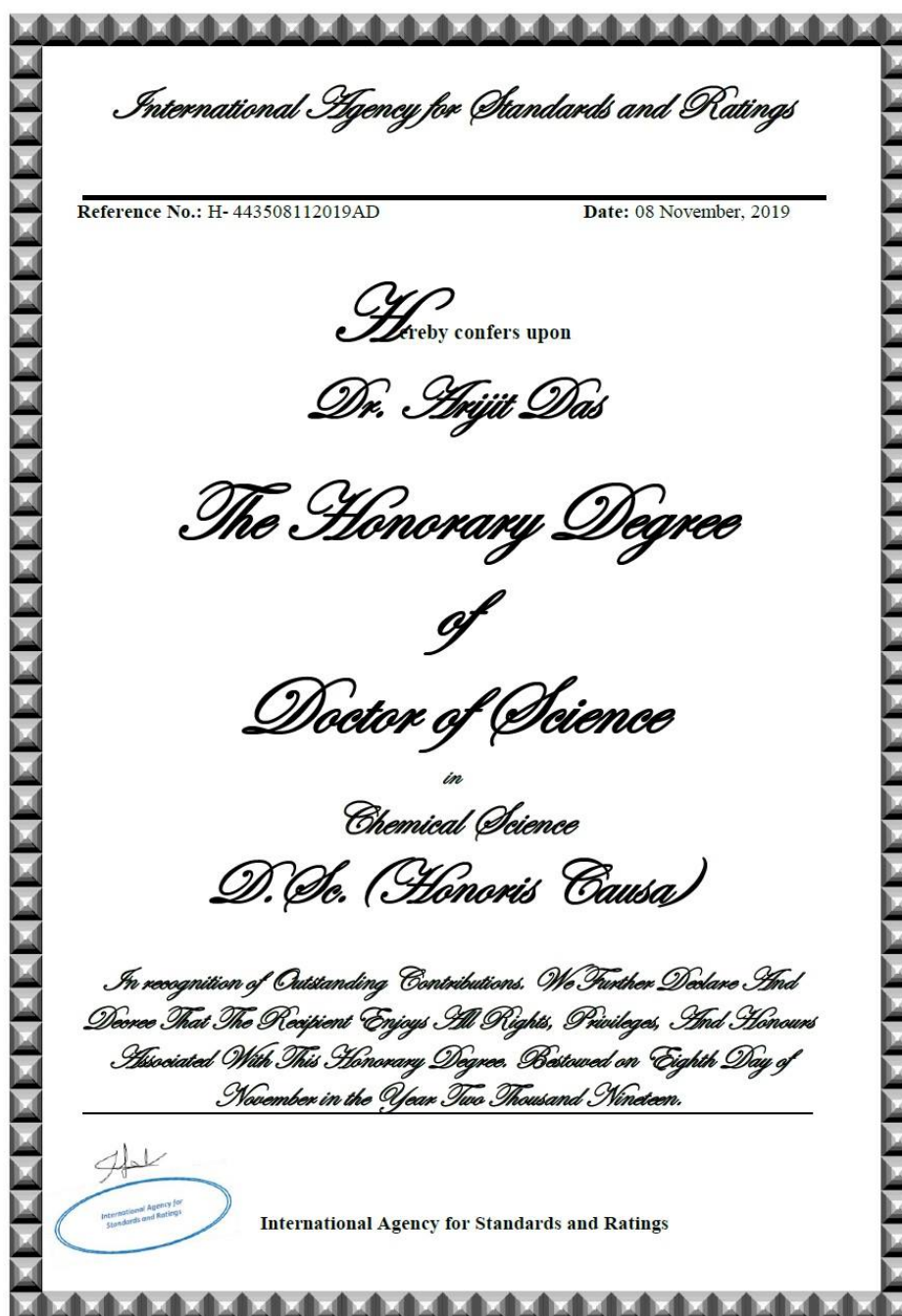


Helen Edwards
Commissioning Editor
helen.edwards@cambridgescholars.com
Cambridge Scholars Publishing



**Dr. Arijit Das conferred with Honorary Degree of Doctor
of Science for Outstanding Scientific Contribution in Chemical
Science from the IASR**


Link: <https://sites.google.com/site/honorarydegreeacademics/list-of-highest-qualifications-after-phd-admission-for-dsc>



Cover Page of the Published Book from the Cambridge Scholars, England, UK Nov 01, 2019

Link: <https://www.cambridgescholars.com/innovative-mnemonics-in-chemical-education>

Cambridge Scholars Publishing



Health Sciences ▾

Life Sciences ▾

Physical Sciences ▾

Social Sciences ▾

Newsletter

Subscribe to our newsletter

email@example.com

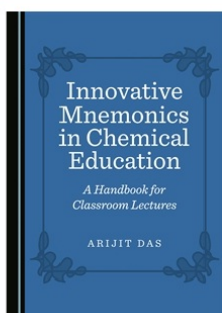
View all our newsletters

Cambridge Scholars Publishing. Innovative Mnemonics in Chemical Education

[Home](#) [Register](#) [Log in](#) [My Order \(0\)](#) [Wishlist \(0\)](#)

[About us](#) [Publishing your work](#) [Advisory board](#) [News](#) [FAQs](#) [Contact us](#) [Search](#)

HOME / PHYSICAL SCIENCES / INNOVATIVE MNEMONICS IN CHEMICAL EDUCATION



Innovative Mnemonics in Chemical Education

A Handbook for Classroom Lectures

Author(s):
Arijit Das

Book Description

This book details formulae-based, time-economic, and innovative learning techniques in chemistry, which serve to help students grow an interest in chemistry, and memorise specific aspects of the subject. It highlights the limitations of conventional methods and solves them in innovative ways.

The volume also provides different chemical applications and problems, which will encourage students to solve multiple choice-type questions (MCQs), and highlights some attractive, free educational chemistry tools, which can be used in solving a number of different problems.

Hardback

ISBN-13:
978-1-5275-3922-8

ISBN-10:
1-5275-3922-9

Date of Publication:
01/11/2019

Pages / Size:
330 / A5

Price:
£58.99

Quantity:

Biography

Dr Arijit Das is an Assistant Professor in the Department of Chemistry at Bir Bikram Memorial College (BBMC), India, having received his PhD from Tripura Central University, India, in 2008. He is a member of the Chemical Education Division of the American Chemical Society, and a Lifetime Fellow of the Directorate of Chemical Science, as recognised by the International Agency for Standards and Ratings, which also mentioned him among the world's "500 Most Influential Experts in Chemical Science" in 2018.


Cambridge Scholars Publishing | Registration Number: 04333775
Copyright © 2019 Cambridge Scholars Publishing. All rights reserved.

[Privacy Policy](#)

<https://www.cambridgescholars.com/innovative-mnemonics-in-chemical-education>

DR. ARIJIT DAS, IQAC Member, Tripura University, INDIA
(Duration two (02) yrs: May 2020-May 2022)

[\(Link:](#)

त्रिपुरा विश्वविद्यालय TRIPURA UNIVERSITY (केन्द्रीय विश्वविद्यालय / A Central University) सूर्यमणिनगर, अगरतला / Suryamaninagar, Agartala त्रिपुरा(प.)/Tripura(W.), पिन/PIN – 799022, भारत/INDIA		दूरभाष / Phone : (0381) 237 9003 237 4803 फैक्स / Fax : (0381) 237 4802/3 ई-मेल / E-Mail: registrar@tripurauniv.in वेबसाइट / Website : www.tripurauniv.in
--	---	---

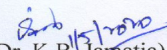
No.F.TU/IQAC/02/2013

Date: 01.05.2020

NOTIFICATION

The Hon'ble Vice-Chancellor (In-charge), Tripura University has been pleased to re-constitute the IQAC, Tripura University with the following members for a period of 2 (two) years with effect from the date of notification, as per the guidelines of UGC, October 2013.

1. The Vice Chancellor, TU - Chairperson
2. Senior Administrative officers
 - (a) Pro-Vice Chancellor, TU - Member
 - (b) Dean, Faculty of Science, TU - Member
 - (c) Dean, Faculty of Arts & Commerce, TU - Member
3. Three to Eight teachers
 - (a) Prof. Chinmoy Roy, Dept. of Commerce, TU - Member
 - (b) Prof. Swapan Majumdar, Dept. of Chemistry, TU - Member
 - (c) Prof. Ashish Nath, Dept. of Economics, TU - Member
 - (d) Dr. Sipra Ray, Dept. of Sanskrit, TU - Member
 - (e) Dr. B.M. Pandey, Dept. of Law, TU - Member
4. One member from the management.
Sri M.M. Reang, Joint Registrar (Admin), TU - Member
5. One/two nominees from local societies, students and alumni
 - (a) Dr. Arijit Das, Asst. Prof., Dept. of Chemistry, BBM College, Agt - Member
 - (b) Mr. Subrata Pal, Alumni, Law Department - Member
6. One/two members from employers/Industrialists/Stake holders (to be nominated) - Member
7. Prof. B.C. Tripathy, Dept. of Mathematics, TU - Director cum Member Secretary


(Dr. K.B. Jamatia)
Registrar (i/c)

To
All members of the committee
.....

Copy to:

1. The Head/Head (i/c), Department of _____, T.U. with a request to circulate the Notification among the faculty members/staff/students.
2. All Officers of the University
3. Sri Suman Das, Sr. Technical Assistant, T.U. for uploading the Notification in T.U. website.
4. P.S. to the Vice-Chancellor, T.U. for kind information of Hon'ble Vice-Chancellor.

**DR. ARIJIT DAS, Convener, Integrated M.Sc.
(Chemistry), MBB University, Agartala, Tripura, India
(May 11, 2020)**



MAHARAJA BIR BIKRAM UNIVERSITY

P.O.: Agartala College- 799 004

Dial : (0381) 251 2250, 251 2252, 251 2254

Email: mbbuniversityagt@gmail.com

No.F.15(27)/MBBU/Academic/IMD/Sc./2020/194-200

May 11, 2020

NOTIFICATION

An Expert Committee is hereby constituted with the following members to prepare the syllabus, model questions for Entrance Test and other modalities of 5 years Integrated Master Degree in Chemistry to be introduced in the MBB University:

- | | |
|--|-----------------|
| 1. Professor R.N. Dutta Purkayastha,
Professor, Deptt. of Chemistry, Tripura University
Email: rndp@tripurauniv.in, rndp09@gmail.com
Mobile: 9402137040 | <i>Chairman</i> |
| 2. Dr. Bhabatosh Saha, President,
Tripura Board of Secondary Education
Mobile: 7005889315 | Member |
| 3. Dr. Kashinath Das,
Retired Reader
Email: kndbenz@rediffmail.com
Mobile: 9366825921 | Member |
| 4. Dr. Asish Mitra, Associate Professor,
Deptt. of Chemistry, Maharaja Bir Bikram College
Email: amiprall963@gmail.com
Mobile: 9436125541 | Member |
| 5. Dr. Arijit Das, Assistant Professor,
Deptt. of Chemistry, Bir Bikram Memorial College
Email: arijitdas78chem@gmail.com
Mobile: 9862211165 | <i>Convener</i> |

The Committee is requested to submit its report to the undersigned latest by **May 25, 2020**.

This issues with the approval of the Vice-Chancellor, MBB University.

Sumanta
11/05/2020
(Dr. Sumanta Chakrabarti)
Registrar

To

1. Professor R.N. Dutta Purkayastha, Professor, Deptt. of Chemistry, Tripura University, Suryamaninagar, Agartala.
2. Dr. Bhabatosh Saha, President, Tripura Board of Secondary Education, Agartala.
3. Dr. Kashinath Das, Retired Reader, Agartala.
4. Dr. Asish Mitra, Associate Professor, Deptt. of Chemistry, Maharaja Bir Bikram College, Agartala.
5. Dr. Arijit Das, Assistant Professor, Deptt. of Chemistry, Bir Bikram Memorial College, Agartala with a request to convene the meeting at the earliest.

Achieved 'Best Researcher Award' @ International Scientist Awards on Engineering, Science and Medicine, organized by the VDGGOOD Professional Association, India, 04th & 05th July 2020, Coimbatore, India



International Scientist Awards
on
Engineering, Science and Medicine
04 & 05-Jul-2020 | Coimbatore, India



Best Researcher Award
Presented to
Dr. Arijit Das
Assistant Professor,
Department of Chemistry,
Bir Bikram Memorial College,
Tripura, India.

M. Dinesh
Mr.M.Dinesh
Association Director
VDGOOD Professional Association, India

**Achieved InSc 'Research Excellence Award-2020', Oct-2020,
Institute of Scholars, Department of Awards, #1338, 2nd
Cross, 7th Block Sir M V Layout, Muddhinapalya Bengaluru-
560091, Karnataka, India, Email: awards@insc.in,
Phone: +91-7619574868.**

InSc Awards 2020

Connecting Scholars Since 2014

Institute of Scholars

An ISO 9001:2015 certified Institute by International Accurate Certification, Accredited by UASL

Bringing ideas into reality.....



Certificate

Research Excellence Award 2020

awarded to

Dr. Arijit Das

Ph.D.

Assistant Professor
Department of Chemistry
Bir Bikram Memorial College (Bbmc)
Tripura.

For the work with following details:

Publication Title: Journal
Paper Title: Bimetallic and Trimetallic Cd(II) and Hg(II) Mixed-Ligand
Complexes with 1,1-dicyanoethylene-2,2- dithiolate and Polyamines: Synthesis,
Crystal structure, Hirshfeld Surface analysis, and Antimicrobial study
Journal name : Inorganica Chimica Acta, Elsevier
Volume: 512
Month of publication : July
Year : 2020
Page No: 119877
ISSN: 0020-1693

Nanjesh Bennur
Director, InSc

100 Powerful Personalities 2022, presented by the Glantor X, Frontline Media, India Email: info@glantorx.com



Ten (20) articles and one (01) book related to my Innovative Teaching Methods included in the Stanford University (World Rank 02) till in the field of Chemical Education (UG-PG)

Articles Indexed Links:

Article 1: https://searchworks.stanford.edu/articles/eric_ED613509

Article 2: https://searchworks.stanford.edu/articles/eric_ED611724

Article 3: https://searchworks.stanford.edu/articles/eric_EJ1266632

Article 4: https://searchworks.stanford.edu/articles/eric_ED610991

Article 5: https://searchworks.stanford.edu/articles/eric_ED609695

Article 6: https://searchworks.stanford.edu/articles/eric_ED609311

Article 7: https://searchworks.stanford.edu/articles/eric_ED610993

Article 8: https://searchworks.stanford.edu/articles/eric_ED610994

Article 9: https://searchworks.stanford.edu/articles/eric_ED610995

Article 10: https://searchworks.stanford.edu/articles/eric_ED610985

Article 11:

https://searchworks.stanford.edu/articles/edsair_edsair.doi.dedup.....7814003569841c47e4b864cbbcf15370

Article 12:

https://searchworks.stanford.edu/articles/edsair_edsair.doi.dedup.....ea1e8733e85c699def79fbd0578e0b8

Article 13:

https://searchworks.stanford.edu/articles/edsair_edsair.doi.dedup.....16bd4464d1175bd201d3900668d1d415

Article 14:

https://searchworks.stanford.edu/articles/edsair_edsair.doi.....b397118b7b7ec0ba1920c8e369978044

Article 15:

https://searchworks.stanford.edu/articles/edsair_edsair.doi.dedup.....90483a1acf253b2174b9fd9a181fe05e

Article 16:

https://searchworks.stanford.edu/articles/edsair_edsair.doi.....8a8181b923391c07320a00e2809ecdad

Article 17:

https://searchworks.stanford.edu/articles/edsair_edsair.doi.dedup.....82605d8b4a6b30f248dae88821885581

Article 18:

https://searchworks.stanford.edu/articles/edsair_edsair.doi.dedup.....cc94683bf601ac348efedd716862353e

Article 19:

https://searchworks.stanford.edu/articles/edsair_edsair.doi.....163b173556164ad77ee822824fccb6a5

Article 20:

https://searchworks.stanford.edu/articles/edsair_edsair.78975075580c..51d5907555b6d138677e0b9ee360e7ca

BOOK Indexed:

Link: <https://searchworks.stanford.edu/view/14279378>

First 10 indexed Articles were displayed in the next 10 pages:

Stanford University

[World University Ranking-02(2024)]

Article 1: https://searchworks.stanford.edu/articles/eric_ED613509

4/29/24, 9:26 PM Classification of Negative Charge Discriminate Hybridization with Aromatic and Anti-Aromatic Behavior of Organic Compounds - In...

Stanford LIBRARIES Login

SearchWorks articles+

All fields articles, e-books, & other e-resources

Help Connection problem?

[Back to results](#) Cite

Classification of Negative Charge Discriminate Hybridization with Aromatic and Anti-Aromatic Behavior of Organic Compounds - Innovative Mnemonics

Best source

[Full Text from ERIC](#)

About this article

Authors: [Das, Arijit](#)
Source: *Online Submission*. 2021 9(2):57-63.
Publication Date: 2021-01-01
Language: English

Abstract

Abstract: In this approach, formulae-based mnemonics by using the classification of charge (localized or delocalized) have been highlighted by innovative and economic way to enhance interest of students' who belong to paranoia zor chemistry for the prediction of hybridization state of carbon atom containing charge (one or more) and aromatic, anti-aromatic, non-aromatic behavior of organic compounds. Here, I have tried to hub three (03) time economic mnemonics including three (03) formulae for the prediction of hybridization state of carbon atom containing negative charge, aromatic, anti-aromatic, and non-aromatic behavior of organic compounds. Educators can use these mnemonics in their teaching classroom lectures after discussing conventional methods and its limitation. This chemistry intriguing. This article encourages students to solve multiple choice questions (MCQs) on 'Aromaticity of negative charge containing organic compounds' in different competitive examinations in a time economic ground.

Details

Format: Academic Journal
Database: ERIC
Journal: Online Submission
Volume: 9
Issue: 2
Page Start: 57
Page Count: 7
Document Type: Journal Articles and Reports - Research

Stanford LIBRARIES [Hours & locations](#) [My Account](#) [Ask us](#) [System status](#)

Stanford University [Stanford Home](#) [Maps & Directions](#) [Search Stanford](#) [Emergency Info](#)
[Terms of Use](#) [Privacy](#) [Copyright](#) [Trademarks](#) [Non-Discrimination](#) [Accessibility](#)
© Stanford University, Stanford, California 94305.

Stanford University

[World University Ranking-02(2024)]

Article 2: https://searchworks.stanford.edu/articles/eric_ED611724

4/29/24, 9:30 PM

IUPAC Nomenclature of Higher Alkanes – Innovative Mnemonics in SearchWorks catalog

Stanford LIBRARIES

Login

SearchWorks articles+

All fields articles, e-books, & other e-resources

Help

Connection problem?

Back to results

Cite

IUPAC Nomenclature of Higher Alkanes – Innovative Mnemonics

Best source

[Full Text from ERIC](#)

About this article

Authors: Das, Arijit
Source: *Online Submission*. 2021 9(2):42-45.
Publication Date: 2021-01-01
Language: English

Abstract

Abstract: IUPAC nomenclature of lower alkanes (1C to 10C) is quite common and di students face problems remembering and predict IUPAC word-root during nomenclature of higher alkanes (C >11). Here in this innovative article, I h focus IUPAC nomenclature of higher alkanes (11C to 90C) through the pre IUPAC word root by using innovative mnemonics to make the concept una simpler, time economic, and interesting.

Details

Format: Academic Journal
Database: ERIC
Journal: Online Submission
Volume: 9
Issue: 2
Page Start: 42
Page Count: 4
Document Type: Journal Articles and Reports - Research



Stanford LIBRARIES

[Hours & locations](#) [My Account](#) [Ask us](#) [System status](#)

Stanford University

[Stanford Home](#) [Maps & Directions](#) [Search Stanford](#) [Emergency Info](#)
[Terms of Use](#) [Privacy](#) [Copyright](#) [Trademarks](#) [Non-Discrimination](#) [Accessibility](#)

© Stanford University, Stanford, California 94305.

Stanford University

[World University Ranking-02(2024)]

Article 3: https://searchworks.stanford.edu/articles/eric_EJ1266632

4/29/24, 9:31 PM

Predicting the Hybridization State: A Comparative Study between Conventional and Innovative Formulae in SearchWorks catalog

Stanford LIBRARIES Login

SearchWorks articles+

All fields ▾ articles, e-books, & other e-resources

Help Connection problem?

[Back to results](#) Cite

Predicting the Hybridization State: A Comparative Study between Conventional and Innovative Formulae

Best source

[Full Text from ERIC](#)

About this article

Authors: [Das, Arijit](#)
Source: *Journal of Education and Learning (EduLearn)*. May 2020 14(2):272-278.
Publication Date: 2020-05-01
Language: English

Abstract

Abstract: In previous published articles, formulae-based mnemonics by counting the number of sigma bonds with a lone pair of electrons (LP), a localized negative charge (L), a localized lone pair of electrons (LLP) and subtracting one (O1) from this total (TSLP, TSLNC, or TSLLP) to predict the power of the hybridization state of molecules or ions and organic compounds, including heterocyclic compounds, have been discussed. These are the innovative and time-efficient methods of great student interest. Here, in this new article, the limitations of conventional methods for comparison to the use of innovative formulae have been discussed along with the application of the hybridization state in different fields of chemical education encourages students to solve multiple choice type questions (MCQs) at different competitive examinations in a time economic ground on the prediction of the hybridization state of simple molecules or ions to know their normal and subnormal geometry. The prediction of hybridization state of hetero atom in different heterocyclic compounds, which is very essential factor for predicting the planarity of the compounds, which is very essential factor for predicting the aromaticity of heterocyclic compounds. Educators can use this comparative study in their classroom lectures to make chemistry authentic and intriguing. Because mnemonics in classroom lectures is an essential tool to become a distinguished educator.

Details

Format: Academic Journal
Database: ERIC
Journal: Journal of Education and Learning (EduLearn)
Volume: 14
Issue: 2
Page Start: 272
Page Count: 7
ISSN: 2089-9823
Document Type: Journal Articles and Reports - Research

Stanford LIBRARIES [Hours & locations](#) [My Account](#) [Ask us](#) [System status](#)

Stanford University [Stanford Home](#) [Maps & Directions](#) [Search Stanford](#) [Emergency Info](#)
[Terms of Use](#) [Privacy](#) [Copyright](#) [Trademarks](#) [Non-Discrimination](#) [Accessibility](#)
© Stanford University, Stanford, California 94305.

4/29/24, 9:32 PM

Review of Innovative Mnemonics for Inorganic and Organic Chemical Education in SearchWorks catalog

Stanford LIBRARIES Login

SearchWorks articles+

All fields articles, e-books, & other e-resources

Help Connection problem?

[Back to results](#)

Review of Innovative Mnemonics for Inorganic and Organic Chemical Education

Best source

[Full Text from ERIC](#)

About this article

Authors: [Das, Arijit](#)
Source: *Online Submission*. 2018 4(2):11-31.
Publication Date: 2018-01-01
Language: English

Abstract

Abstract: In this review article, formulae based innovative mnemonics have been discussed to create interest and remove phobia of students in the field of inorganic and organic chemistry. Educators can use these numerous mnemonics in their teaching classroom lectures after discussing conventional methods to make chemistry more interesting. Here, I have tried to focus some time economic mnemonics by including the new formulae in the field of chemical education. It will encourage students to answer multiple choice type questions (MCQs) at different competitive examination levels. This review article emphasizes chemical education in the form of a variety of mnemonic techniques to make inorganic and organic chemistry more time economic and intriguing for students because the use of mnemonics in classroom lectures is an essential tool to become a distinguished educator.

Details

Format: Academic Journal
Database: ERIC
Journal: *Online Submission*
Volume: 4
Issue: 2
Page Start: 11
Page Count: 21
ISSN: 2381-7674
Document Type: Journal Articles and Reports - Evaluative



Stanford LIBRARIES

[Hours & locations](#) [My Account](#) [Ask us](#) [System status](#)

Stanford University

[Stanford Home](#) [Maps & Directions](#) [Search Stanford](#) [Emergency Info](#)
[Terms of Use](#) [Privacy](#) [Copyright](#) [Trademarks](#) [Non-Discrimination](#) [Accessibility](#)

© Stanford University, Stanford, California 94305.

4/29/24, 9:33 PM

Innovative Mnemonics Make Chemical Education Time Economic -- A Pedagogical Review Article in SearchWorks catalog

 Login

SearchWorks *articles+*

All fields

Help Connection problem?

[Back to results](#)

[Cite](#)

Innovative Mnemonics Make Chemical Education Time Economic -- A Pedagogical Review Article

Best source

[Full Text from ERIC](#)

About this article

Authors: Das, Arijit
Source: *Online Submission*. 2018 6(4):154-174.
Publication Date: 2018-01-01
Language: English

Abstract

Abstract: In this review article, formulae based on innovative mnemonics have been created to create interest and remove phobia of students in the field of chemical education. Educators can use these numerous mnemonics in their teaching style in their lectures after discussing conventional methods to make chemistry intriguing. We have tried to focus some time economic mnemonics by including thirty-three formulae in the field of chemical education. It will encourage students to solve choice type questions (MCQs) at different competitive examinations in a fair ground. This review article emphasizes chemical education in the light of a mnemonic techniques to make it metabolic, time economic and intriguing because the use of mnemonics in classroom lectures is an essential tool for a distinguished educator.

Details

Format: Academic Journal
Database: ERIC
Journal: *Online Submission*
Volume: 6
Issue: 4
Page Start: 154
Page Count: 21
Document Type: Journal Articles and Reports - Research



Stanford
LIBRARIES

[Hours & locations](#) [My Account](#) [Ask us](#) [System status](#)

Stanford
University

[Stanford Home](#) [Maps & Directions](#) [Search Stanford](#) [Emergency Info](#)
[Terms of Use](#) [Privacy](#) [Copyright](#) [Trademarks](#) [Non-Discrimination](#) [Accessibility](#)

© Stanford University, Stanford, California 94305.

Stanford LIBRARIES Login

SearchWorks articles+

All fields

[Help](#) [Connection problem?](#)

[Back to results](#) [Cite](#)

Lone Pair Electron Discriminate Hybridization with Aromatic and Anti Aromatic Behavior of Heterocyclic Compounds - Innovative Mnemonics

Best source

[Full Text from ERIC](#)

About this article

Authors: [Das, Arijit](#)
Source: [Online Submission](#). 2018 6(2):95-101.
Publication Date: 2018-01-01
Language: English

Abstract

Abstract: In this approach, formulae based mnemonics by counting lone pair of electrons (localized or delocalized) have been highlighted by innovative and time economic enhance interest of students' who belong to paranoia zone of chemistry for prediction of Hybridization state of hetero atom and Aromatic, Anti aromatic behavior of different heterocyclic compounds. Here, I have tried to (03) time economic mnemonics by including three (03) formulae for the prediction of hybridization of hetero atom, aromatic and anti aromatic behavior of heterocyclic compounds. This article encourages students to solve multiple choice type (MCQs) on 'Aromaticity of Heterocyclic compounds' at different competitive examinations in a time economic ground.

Details

Format:	Academic Journal
Database:	ERIC
Journal:	Online Submission
Volume:	6
Issue:	2
Page Start:	95
Page Count:	7
Document Type:	Journal Articles and Reports - Descriptive

Stanford LIBRARIES [Hours & locations](#) [My Account](#) [Ask us](#) [System status](#)

Stanford University

[Stanford Home](#) [Maps & Directions](#) [Search Stanford](#) [Emergency Info](#)
[Terms of Use](#) [Privacy](#) [Copyright](#) [Trademarks](#) [Non-Discrimination](#) [Accessibility](#)
© Stanford University, Stanford, California 94305.

Stanford University

[World University Ranking-02(2024)]

Article 7: https://searchworks.stanford.edu/articles/eric_ED610993

4/29/24, 9:34 PM

Bond-Order and Magnetic Behavior of Diatomic Species without Molecular Orbital Theory in SearchWorks catalog

Stanford LIBRARIES Login

SearchWorks articles+

All fields articles, e-books, & other e-resources

Help Connection problem?

[Back to results](#)

Bond-Order and Magnetic Behavior of Diatomic Species without Molecular Orbital Theory

Best source

[Full Text from ERIC](#)

About this article

Authors: [Das, Arijit](#)
Source: *Online Submission*. 2017 5(4):128-131.
Publication Date: 2017-01-01
Language: English

Abstract

Abstract: In this chapter text-based learning approaches have been highlighted by ir time economic way to enhance the interest of students who belong to the p in Electronic Structure of Atoms and Molecules beneath Inorganic Chemist chemical science. In this pedagogical survey, I have tried to hub two (02) t pedagogies by including seven (07) new formulae in the field of chemical e This chapter explores the results and gives implications for context-based learning and assessment.

Details

Format: Academic Journal
Database: ERIC
Journal: Online Submission
Volume: 5
Issue: 4
Page Start: 128
Page Count: 4
Document Type: Journal Articles and Reports - Evaluative

Stanford LIBRARIES [Hours & locations](#) [My Account](#) [Ask us](#) [System status](#)

Stanford University [Stanford Home](#) [Maps & Directions](#) [Search Stanford](#) [Emergency Info](#)
[Terms of Use](#) [Privacy](#) [Copyright](#) [Trademarks](#) [Non-Discrimination](#) [Accessibility](#)
© Stanford University, Stanford, California 94305.

[Stanford University](https://www.stanford.edu)

[\[World University Ranking-02\(2024\)\]](#)

Article 8: https://searchworks.stanford.edu/articles/eric_ED610994

5/2/24, 6:43 AM

Rapid Calculation of the Number of [Pi]-Bonds, [Sigma]-Bonds, Single and Triple Bonds in Aliphatic Unsaturated Open Chain a...



SearchWorks articles+

All fields articles, e-books, & other e-resources

Help

[Back to results](#)

Rapid Calculation of the Number of [Pi]-Bonds, [Sigma]-Bonds in Aliphatic Unsaturated Open Chain and Cyclo

Best source

[Full Text from ERIC](#)

About this article

Authors: [Das, Arijit](#), [Adhikari, Suman](#), [Pal, Debapriya](#), [Paul, Bijaya](#), [Sanjeev, R.](#), [Jagannadham, V.](#)

Source: *Online Submission*. 2014 2(1):1-3

Publication Date: 2014-01-01

Language: English

Abstract

Abstract: Prediction of number of [Pi]-bonds unsaturated open-chain and cyclo chemistry at undergraduate and g regarding different chemical reacti innovative method for easy calcul and triple bonds with the help of c

Details

Format: Academic Journal

Database: ERIC

Journal: Online Submission

Volume: 2

Issue: 1

Page Start: 1

Page Count: 3

Document Type: Journal Articles and Reports - Ev



Stanford
LIBRARIES

[Hours & Locations](#) [My Account](#) [Ask us](#) [System status](#)

Stanford
University

[Stanford Home](#) [Maps & Directions](#) [Search Stanford](#) [Emergency Info](#)
[Terms of Use](#) [Privacy](#) [Copyright](#) [Trademarks](#) [Non-Discrimination](#) [Accessibility](#)
© Stanford University, Stanford, California 94305.

[Stanford University](#)

[\[World University Ranking-02\(2024\)\]](#)

Article 9: https://searchworks.stanford.edu/articles/eric_ED610995

5/2/24, 6:40 AM

A Rapid and Innovative Method for the Identification of Aromatic and Anti-Aromatic Nature of Organic Compounds in SearchW...



SearchWorks articles+

All fields articles, e-books, & other e-resources

Help

[Back to results](#)

A Rapid and Innovative Method for the Identification of Aromatic and Anti-Aromatic Nature of Organic Compounds

Best source

[Full Text from ERIC](#)

About this article

Authors: [Das, Arijit](#), [Adhikari, Suman](#), [Paul, Bijaya](#), [Sanjeev, R.](#), [Jagannadham, V.](#)

Source: *Online Submission*, 2013 1(1):6-8

Publication Date: 2013-01-01

Language: English

Abstract

Abstract: Prediction of aromatic and anti-aromatic nature of organic compounds is an important tool for students of chemistry. In this manuscript we try to present a simple and effective method for the prediction of aromatic and anti-aromatic nature excluding Huckel's rule of 4n+2.

Details

Format: Academic Journal

Database: ERIC

Journal: Online Submission

Volume: 1

Issue: 1

Page Start: 6

Page Count: 3

Document Type: Journal Articles and Reports - Descriptive



Stanford
LIBRARIES

[Hours & Locations](#) [My Account](#) [Ask us](#) [System status](#)

Stanford
University

[Stanford Home](#) [Maps & Directions](#) [Search Stanford](#) [Emergency Info](#)
[Terms of Use](#) [Privacy](#) [Copyright](#) [Trademarks](#) [Non-Discrimination](#) [Accessibility](#)

© Stanford University, Stanford, California 94305.



SearchWorks articles+

All fields ▾ articles, e-books, & other e-resources

Help

[Back to results](#)

New Innovative Methods for IUPAC Nomenclature of Organic Chemistry

Best source

[Full Text from ERIC](#)

About this article

Authors: [Das, Arijit](#)
Source: *Online Submission*, Jul 2013 3(7):
Publication Date: 2013-07-01
Language: English

Abstract

Abstract: IUPAC nomenclature of bicyclo ar organic chemistry in graduate and method has to be introduced for th bicyclo and spiro compounds in a

Details

Format: Academic Journal
Database: ERIC
Journal: Online Submission
Volume: 3
Issue: 7
Page Start: 596
Page Count: 2
ISSN: 2249-555X
Document Type: Journal Articles and Reports - Res



Stanford LIBRARIES

[Hours & Locations](#) [My Account](#) [Ask us](#) [System status](#)

Stanford University

[Stanford Home](#) [Maps & Directions](#) [Search Stanford](#) [Emergency Info](#)
[Terms of Use](#) [Privacy](#) [Copyright](#) [Trademarks](#) [Non-Discrimination](#) [Accessibility](#)

© Stanford University, Stanford, California 94305.

Stanford University
[World University Ranking-02(2024)]
BOOK Indexed:

Link: <https://searchworks.stanford.edu/view/14279378>

4/29/24, 9:35 PM

Innovative mnemonics in chemical education : a handbook for classroom lectures in SearchWorks catalog

Login

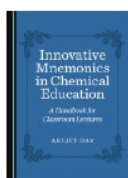
Stanford LIBRARIES

SearchWorks catalog All fields books & media

Help Advanced search Course reserves

[Back to results](#)

Innovative mnemonics in chemical education : a handbook for classroom lectures



Responsibility by Arijit Das.
Imprint Newcastle-upon-Tyne : Cambridge Scholars Publishing, 2019.
Physical description 1 online resource (182 pages)

Online

Available online

[EBSCO Academic Comprehensive Collection](#)

[Report a connection problem](#)

More options

[Find it at other libraries via WorldCat](#)

[Google Preview](#) (Limited preview)

Description

Creators/Contributors

Author/Creator
Das, Arijit, author.

Contents/Summary

Publisher's summary

This book details formulae-based, time-economic, and innovative learning techniques in chemistry which serve to help students grow an interest in chemistry, and memorise specific aspects of the subject. It highlights the limitations of conventional methods and solves them in innovative ways. This volume also provides different chemical applications and problems, which will encourage student solve multiple choice-type questions (MCQs), and highlights some attractive, free educational chemistry tools, which can be used in solving a number of different problems.
(source: Nielsen Book Data)

Subjects

Subjects
[Chemistry > Textbooks.](#)
[Mnemonics.](#)
[Mnémotechnique.](#)
[Education.](#)
[Chemistry.](#)

Genre
[Textbooks.](#)

Bibliographic information

Publication date
2019

ISBN
9781527540651 (electronic bk.)
1527540650 (electronic bk.)
9781527539228

Reviewers:

1. Prof. R. N. Mukherjee

Former Director and Professor of chemistry
Indian Institute of Science Education and Research (IISER), Kolkata
Email: rnm@iitk.ac.in.

2. Prof. G. N. Mukherjee (Retd-)

Sir Rashbehary Ghose Professor of Chemistry
Department of Chemistry
University of Calcutta, 92, A. P. C. Road, Kolkata 700 009
India. Email: mukherg@rediffmail.com

3. Prof. R. A. Lal,

(Former Head)

Dept. of Chemistry,
NEHU University, Shillong. Email: ralal@rediffmail.com

4. Prof. Arabinda Kumar Das (Retd), Ex-VC, Kalyani University

Department of Chemistry
The University of Burdwan
Burdwan – 713104, West Bengal, INDIA.
Email: arabindakdas@rediffmail.com

5. Dr. P. K. Chattaraj, FASc, FNA, FNASc

J. C. Bose National Fellow

Professor, Department of Chemistry

Convener: Centre for Theoretical Studies, Kharagpur local chapter of INSA

Indian Institute of Technology Kharagpur

Kharagpur – 721302. Email: pratim.chattaraj@gmail.com

6. Prof. Samar K. Das, FASc.

School of Chemistry
University of Hyderabad
Hyderabad – 500046, India. Email: samar439@gmail.com

7. Dr. Delmar Larsen

Associate Professor

Department of Chemistry, University of California, Davis

One Shields Avenue, Davis, CA 95616

dlarsen@ucdavis.edu, <http://LarsenLab.ucdavis.edu>

<http://ChemWiki.ucdavis.edu>

8. Dr. Edel Garcia

Administrater of [minerazzi.com](http://www.minerazzi.com)

URL: <http://www.minerazzi.com> , Email: admin@minerazzi.com

Disclaimer: The research papers provided here are for the scientific use of individuals involved in academic research only. The copyrights rest with the publishers of the journals.