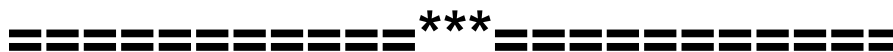


DEPARTMENT OF CHEMISTRY



RESEARCH

S. No.	Title of the Project	Duration	Funding Agency	Amount	Status	Ref. No.
1.	“Ion Conducting Hot Pressed Polymer Electrolytes: Synthesis, Characterization and Application”.	3 Years	Chhattisgarh Council of Science and Technology (CCOST)	5,00,000/-	Completed	2742/CCOST/ MRP/15, Raipur, Dated 24.03.2015
2.	“Investigations of Luminol Based Chemiluminescence System in the Presence of Some Metal Nanoparticles”	3 Years	Rashtriya Uchchatar Shiksha Abhiyan (RUSA), MHRD, Deptt. of Higher Education, Govt. of India.	10,00,000/-	Applied (2016)	-
3.	“Investigations of Luminol Based Chemiluminescence System in the Presence of Some Metal Nanoparticles”	3 Years	UGC, Regional Centre, Bhopal (M. P.)	10.00.000/-	Applied (2018)	

Publications :

Research Paper Published : 16

International : 11

National : 05

Research Paper Published

1. “Silver ion conducting solid polymer electrolytes: Synthesis and ion transport studies”, Angesh Chandra, Archana Chandra, RS Dhundhel, Alok Jain, Kiran Thakur, SS Thakur, Subhashis Basak, MZ Khan, Alok Bhatt, *Indian Journal of Pure & Applied Physics*, 58, (2020), 686-690, ISSN- 0975-1041 (Online) ISSN- 0019-5596 (PRINT).

2. "Current Perspective on Scientific Aspects of Yoga and Meditation", Santosh Singh Thakur, Kiran Thakur, *Recent Researches in Social Sciences & Humanities*, 7 (1), (2020), 35-37.
3. "Solid Polymer Electrolytes: Temperature Dependent Ionic Conductivity and Solid State Battery Fabrication" Kiran Thakur, Angesh Chandra, Archana Chandra, S. S. Thakur *Journal of Chemistry and Chemical Sciences*, Vol.9(5), 170-175, (2019) ISSN 2229-760X (Print) ISSN 2319-7625 (Online).
4. "Nari Sashaktikaran" Santosh Singh Thakur, Kiran Thakur, *Shodhdhara*, 2 (2018), 264-266. ISSN: 0975-3664, UGC: 41386
5. "Synthesis and ion conduction mechanism on hot-pressed sodium ion conducting nano composite polymer electrolytes" - Angesh Chandra, Archana Chandra, **K. Thakur**, *Arabian J. Chemistry*, 9 (2016), 400-407.
6. "Synthesis and Characterization of hot pressed ion conducting solid polymer electrolytes: (1-x) PEO:xNaClO₄" - Angesh Chandra, Archana Chandra, **Kiran Thakur**, *Eur. Phys., J. Appl. Phys.*, 69:20901 (2015).
7. "Synthesis, characterization and polymer battery fabrication of hot-pressed ion conducting nanocomposite polymer electrolytes" - Angesh Chandra, Archana Chandra, **Kiran Thakur**, *Composite Part B*: 60 (2014) 292-296.
8. "Synthesis, characterization and device application of hot-pressed solid polymer electrolytes: (1-x) PEO: x NaHCO₃" - Angesh Chandra, Archana Chandra, **Kiran Thakur**, *Polymer Bulletin*, 10.1007/s00289-013-1053-6 (2013).
9. "Dielectric study of Hot-Pressed Nanocomposite Polymer Electrolytes" - Angesh Chandra, Archana Chandra, **K. Thakur**, *Russian Journal of General Chemistry*, 83,12, (2013) 2375-2379.
10. "Effects of transition metal ions on Chemiluminescence reactions of the hydrazine salts with H₂O₂" – **K. Thakur**, S. S. Thakur, Angesh Chandra, *International J. Chemistry*, 2 (1), 158 (2013).
11. "Preparation and characterization of hot-pressed Na⁺ ion conducting nano-composite polymer electrolytes" - Angesh Chandra, A. Chandra, **K. Thakur**, *Indian J. Pure & Applied Physics*, 51 (2013) 44.

12. "Synthesis, characterization and ion transport properties of hot-pressed solid polymer electrolytes: (1-x) PEO: x KI" - Angesh Chandra, A. Chandra, **K. Thakur**, Chinese J. Polymer Science, **31 (2013)** 302-308.
13. "Ion transport and polymeric battery studies on hot-pressed solid polymer electrolytes: (1-x) PEO: x KHCO₃"- Angesh Chandra, A. Chandra, **K. Thakur**, International J. Pure and Applied Chemistry, **7(3) (2012)** 237.
14. "Na⁺ ion conducting hot-pressed nano composite polymer electrolytes" – Angesh Chandra, A. Chandra, **K. Thakur**, Portugaliae Electrochimica Acta **30(2) (2012)** 81.
15. "Electrical and electrochemical properties of hot-pressed nano composite polymer electrolytes: (1-x) [70PEO:30KHCO₃] : x SiO₂"- Angesh Chandra, A. Chandra, Alok Bhatt, **K. Thakur**, International J. Chemistry, **1(2) (2012)** 209.
16. "Synthesis and characterization on ion conducting superionic polymeric batteries" Angesh Chandra, A. Chandra, **K. Thakur**, International J. Applied Physics, **2 (2012)** 69.

Book Chapter : 01

S. No	Title	Date of Publication	Book Title editor & Publisher	ISSN/ ISBN No.	Whether Peer Reviewed
1.	"Design and Development of Bimetallic Enantioselective Salen Co Catalysts for the Hydrolytic Kinetic Resolution of Terminal Epoxides"	2020	"Catalysis: Current and Future Development-Fundamentals and Prospects of Catalysis" Volume I, Edited by Gautham Kumar Patra & Santosh Singh Thakur, Published by Benthom Science Publisher Pte. Ltd. Singapore	ISBN: 978-981-14-5849-1	Yes

Book Edited : 02

S.No	Title	Date of Publication	Book Title editor & Publisher	ISSN/ ISBN No.
1.	<i>B. Sc.- II Physical Chemistry</i>	2018	<i>Second Year-Physical Chemistry</i> <i>Editor:</i> <i>Dr. Kiran Thakur</i> <i>Pt. Sundar Lal Sharma Open University,</i> <i>Bilaspur (C. G.)</i>	
2.	<i>Shodhdhara,</i>	2018	<i>Bilaspur Seminar Special edition/ Co- Editor</i>	<i>Vol. 2,</i> <i>Edition 49</i> <i>ISSN 0975-</i> <i>3664</i>

Membership/Fellowship of Professional Societies

- *Indian Association of Nuclear Chemists and Allied Sciences (IANCAS) (Life Membership)*
- *Indian Chemical Society, Kolkata (Ex-Member)*
 - ❖ *Citation Index- range/ average- 173*
 - ❖ *SNIP*
 - ❖ *SJR / i10-index - 07*
 - ❖ *Impact factor – range/average - 0 – 3.5 (Reference -Google Scholar)*
 - H-index - 08*

Research Guidance

- ✚ *Registered as Ph. D. Supervisor at Atal Bihari Vajpayee University, Bilaspur (C. G.)*
- ✚ *Registered as Ph. D. Supervisor at C. V. Raman University, Kota, Bilaspur (C. G.) since 2010-11.*

<i>Research Guidance</i>	<i>Name of Student</i>	<i>Details of M. Phil./Ph.D. Degree Supervised</i>
<i>Ph. D</i>	<i>Mrs. Archana Chandra</i>	<i>The student has been awarded for Ph. D. Degree on the topic, “Synthesis and Characterization of Some Ion Conducting Hot-Pressed Polymer Electrolytes” from C. V. Raman University, Kota, Bilaspur (C. G.) on 06.05.2016</i>
	<i>Mrs. Vandana Relwani (NET Qualified)</i>	<i>Pursuing on the topic “A Study of Structure, Complexation and Applications of Some Valuable Hydroxamic Acids: Experimental and Theoretical Approach” from Atal Bihari Vajpayee University, Bilaspur (C. G.)</i>
<i>M. Phil.</i>	<i>Ms. Suchitra Dubey</i>	<i>The student has been awarded M. Phil. Degree on the topic “Effects of Transition Metal Ions on Chemiluminescence Reactions of Hydrazine Salts With Inorganic Peroxide” from C.V. Raman University, Kota, Bilaspur (C.G.).</i>

Research Projects

<i>S. No.</i>	<i>Title of the Project</i>	<i>Duration</i>	<i>Funding Agency</i>	<i>Amount</i>	<i>Status</i>	<i>Ref. No.</i>
1.	<i>“Ion Conducting Hot Pressed Polymer Electrolytes: Synthesis, Characterization and Application”.</i>	<i>3 Years</i>	<i>Chhattisgarh Council of Science and Technology (CCOST)</i>	<i>5,00,000/-</i>	<i>Completed</i>	<i>2742/CCOST/MRP/15, Raipur, Dated 24.03.2015</i>
2.	<i>“Investigations of Luminol Based Chemiluminescence System in the Presence of Some Metal Nanoparticles”</i>	<i>3 Years</i>	<i>Rashtriya Uchchatar Shiksha Abhiyan (RUSA), MHRD, Deptt. of Higher Education, Govt. of India.</i>	<i>10,00,000/-</i>	<i>Applied (2016)</i>	<i>-</i>

3.	<i>“Investigations of Luminol Based Chemiluminescence System in the Presence of Some Metal Nanoparticles”</i>	3 Years	UGC, Regional Centre, Bhopal (M. P.)	10.00.000/-	Applied (2018)	
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Interdisciplinary Research

➡ Department of chemistry has successfully completed a mini research project funded by CCOST in collaboration with Deptt. Of Applied Physics, Shri Shankaracharya Institute of Engg. & Professional Management, Sejbahar, is interdisciplinary in nature. The detail of the project is as follows:

Title of the Project	Funding Agency	Ref. No.	PI	Co-PI	Project Fellow
<i>“Ion Conducting Hot Pressed Polymer Electrolytes: Synthesis, Characterization and Application”.</i>	<i>Chhattisgarh Council of Science and Technology (CCOST)</i>	<i>2742/CCOS T/MR P/15, Raipur, Dated 24.03.2015</i>	<i>Dr. (Mrs.) Kiran Thakur Asth. Prof & Head, Deptt. Of Chemistry, Government Pataleshwar College, Masturi, Distt.- Bilaspur (C. G.)</i>	<i>Dr. Angesh Chandra, (Co- PI) Astt. Prof & Head, Deptt. Of Applied Physics, Shri Shankaracharya Institute of Engg. & Professional Management, Sejbahar, Raipur (C. G.)</i>	<i>Karam Singh Sidar, Project Fellow (CCOST)</i>

Training Courses/Conf./Seminar/Workshops

- ✚ National seminar on “Rashtra Vikas ke Vividh Ayam” Organized by IQAC and NAAC Committee of the college on February 2,2018 as Organising Secretary (NAAC Coordinator)
- ✚ National seminar on “Recent Trends in Yoga: Socioeconomic, Scientific and Global Perspective” Organized by IQAC Committee of the college on February 11, 2020 as Organising Secretary (IQAC Coordinator).

Orientation/Refresher Programme : 03

Short Term Course : 01

Conférences : International -07 , National - 20 , State/District Level – 06

Workshops : 14