


Personal Profile		
Name	DR. AJAY KUMAR SHARMA	
Address with email	<i>Present Add: Bidhan Chandra College, Asansol</i> <i>Permanent Add: Bidhan Chandra College, Asansol</i>  Email: ajay@bccollegeasansol.ac.in	
Date of Joining	13/05/2017	
Teaching Experience	15 Years	
Topics Taught	Electromagnetic Theory, Statistical Mechanics, Quantum Mechanics, Classical Mechanics, Electricity and Magnetism Etc.	
Research Experience	9 Years	
Research Area	Solid State Physics, Bio-Physics, Electronics etc.	
Award and Recognition (if any)	National Education Excellence Achievers Award (2022), The Educationist of The Year-2022, Rashtriya Pratishtha Purushkar (2022), Paryavaran Dronaacharya Award (2015), Shodh-Guru Award (2022).	
Membership	Indian Association of Physics Teachers, IEOM Society International, Institute for Engineering, Research and Publication (IFERP), Indian Institute of Engineers (IEI), Multidimensional Educational Technical & Research Society, International Association of Academic Plus Corporate.	
Other Activity	1. Editorial Team Member of the journal “International Journal of Research and Review (ISSN: 2349-9788)”. 2. Editorial Board Member of the journal “Journal for Innovative Development in Pharmaceutical and Technical Science (ISSN: 2581- 6934)”. 3. Editorial Board Member of the journal “International Journal of Research in Engineering, Science, Management (ISSN:-2581-5792)”. 4. Editorial Board Member of the journal “International Journal of Scientific &	

	Engineering Research -IJSER (ISSN 2229-5518)". 5. Editorial Board Member of the Journals "INSC/IEAE/ISRASE"
List of Publications	<p><b>Papers Published:</b></p> <ol style="list-style-type: none"> <li>1. "An Empirical Bulk Modulus of Ternary Chalcopyrite Structure Solids" Sanjay Kumar Gorai, Guruprasad Parida, <b>Ajay Kumar Sharma</b>, Rasayan Journal of Chemistry, 2017, Volume- 10 (3), 751-758.</li> <li>2. "An Empirical Relation for Calculation of Plasmon Energy of Ternary-Chalcopyrite Semi-conductors" <b>Ajay Kumar Sharma</b>, International Journal for Research in Applied Science &amp; Engineering Technology, 2018, Volume-6, Issue-IV, 981-94.</li> <li>3. "An Empirical Micro-hardness of <math>A^I B^{III} C_2^{VI}</math> &amp; <math>A^{II} B^{IV} C_2^V</math> type Ternary Chalcopyrite Semiconductors", <b>Ajay Kumar Sharma</b>, Journal of Applied Science and Computations, 2018, Volume-5 (7), 165-170.</li> <li>4. "An Empirical Relation Showing the Variation of Refractive Index With Energy Gap for <math>A^I B^{III} C_2^{VI}</math> &amp; <math>A^{II} B^{IV} C_2^V</math> Type Ternary Chalcopyrite Semiconductors" <b>Ajay Kumar Sharma</b>, International Journal of Innovation Research in Technology, 2018, Volume-5(4), 85-88.</li> <li>5. "An Empirical Relation for the Calculation of Ionicity of Ternary Chalcopyrite Semi-Conductors" <b>Ajay Kumar Sharma</b>, Shraddha Prasad, Sanjay Kumar Gorai, International Journal of Innovation Research in Technology, 2019, Volume- 5(8), 137-139.</li> <li>6. "Relation of Lattice Energy with Electronegativity and Principal Quantum number for Ternary Chalcopyrite Semiconductors", <b>Ajay Kumar Sharma</b>, Shraddha Prasad, Sanjay Kumar Gorai, International Journal of Creative and Innovative Research In All Studies, 2019, Volume-1(10), 37-41.</li> <li>7. "Plasmon Energy and Lattice Energy of Ternary Chalcopyrite Semi-Conductors", <b>Ajay Kumar Sharma</b>, Shraddha Prasad, Sanjay Kumar Gorai, International Journal of Innovation Research in Technology, 2019, Volume-6(1), 216-218.</li> <li>8. "HOMO and LUMO Approach of Bulk Modulus of Ternary Chalcopyrites", <b>Ajay Kumar Sharma</b>, Shraddha Prasad, Sanjay Kumar Gorai, Journal of Resource Management and Technology, 2020, Volume-11(2), 71-75.</li> </ol>

9. "Role of Ternary Chalcopyrites in enhancing Green Technologies and Innovation", **Ajay Kumar Sharma**, Shraddha Prasad, Sanjay Kumar Goarai, Akshar Wangmay, 2020, Special Issue-I, 208-210.
10. "Heat of Formation of I-III-VI<sub>2</sub> and II-IV-V<sub>2</sub> Type Ternary Chalcopyrites on the Basis of Optical Electronegativity," **Ajay Kumar Sharma**, Sanjay Kumar Goarai, Journal of Multidimensional Research and Review (JMRR), Vol.1, Iss.2, pp.15-22, 2020.
11. "Electronic Susceptibility of I-III-VI<sub>2</sub> and III-V-V<sub>2</sub> type Ternary Chalcopyrite Semiconductors," **Ajay Kumar Sharma** & Sanjay Kumar Goarai, Journal of Multidimensional Research and Review (JMRR), Vol.1, Iss.3, pp.61-67, 2020.
12. "Best Model for the calculation of Bulk Modulus of Ternary Chalcopyrites: A Comparative Study", **Ajay Kumar Sharma**, Sanjay Kumar Goarai & Shraddha Prasad, Journal of Multidimensional Research and Review (JMRR), Vol.1, Iss.4, pp.54-64, 2021.

#### **Book Chapters-**

1. "Ternary Chalcopyrite: Most Promising Material of This Century", **Ajay Kumar Sharma**, Shraddha Prasad, Advances in Science & Technology (2020), Empyrean Publishing House, 1<sup>st</sup> Edition, pp-19-23, ISBN-978-81-946375-0-9.
2. "Disadvantages of Nano-technology", Ajay Kumar Sharma, Multidisciplinary Subjects for Research (Volume-I), 2020, Redshine Publication, ISBN-978-1-71695-479-5.
3. "Nanotechnology in the field of Solar Power Harnessing", Ajay Kumar Sharma, Multidisciplinary Subjects for Research-II, 2020, Redshine Publication, ISBN- 978-1-71650-381-8.
4. "Role of Ternary Chalcopyrites in Developing Solar Cell Technologies", Ajay Kumar Sharma, Multidisciplinary Research Area-2, 2021, Redshine Publication, ISBN- 978-93-90937-60-8.
5. "Ternary Chalcopyrite Compounds as a Replacement of Classical Semiconducting Materials", Ajay Kumar Sharma, Multidisciplinary Research Area-2, 2021, Redshine Publication, ISBN- 978-93-90937-60-8.
6. "Use of Nanotechnology in the Textile Industry", Ajay Kumar Sharma, Multidisciplinary Research Trends (Volume-1), Red Shine Publication, 2022, ISBN- 978-93-94727-80-9.
7. "The Drake Equation" Ajay Kumar Sharma, Recent Research Approaches in Social Sciences, Science and Technology,

	<p>Education and Linguistics, Red Shine Publication, 2022, ISBN- 978-93-95456-16-6.</p> <p>8. “Thermal effect of Microwave and its Applications”, Ajay Kumar Sharma, Multidisciplinary Approach in Arts, Science &amp; Commerce (Volume-2), 2023, Sankalp Publications, ISBN- 978-81-960663-0-7.</p> <p>9. “Metal Oxide Nanopartices”, Ajay Kumar Sharma, Innovation of Multidisciplinary Research in Present and Future Time (Volume-4), 2023, The Hill Publication, ISBN- 978-81-962702-3-0.</p> <p>10. “Lattice Energy of <math>A^I B^{III} C_2^{VI}</math> &amp; <math>A^{II} B^{IV} C_2^V</math> - Ternary Chalcopyrite Semiconductors”, Ajay Kumar Sharma, Red Shine Publication, 2023, ISBN- 978-93-5879-479-3.</p> <p><b>Patents-</b></p> <p>1. “Artificial Intelligent based Smart Billing System and Application for the E-Commerce Sites”, Application No.-202231008006A, Date of Publication- 11/03/2022.</p> <p>2. “Nano Fabrication of Nanoparticles to Solar Cells for Maximum Absorption of Solar Energy”, Application Number-202241013686, Date of Publication- 25/03/2022.</p>
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