CURRICULAM VITAE

Dr. A. K. Singh, FRSC, MNSc

Prof.& Principal

(DST-FIST Sponsored Department Physics & Chemistry)

Government V. Y. T. PG. Autonomous College Durg

(College with Potential for Excellence)

Durg, Chhattisgarh, India

Personal Information:

Birth date: January 4th, 1966

Nationality: Indian

Sex: Male

Contact Address: B-573,Street-32,Smriti Nagar,Bhilai,DURG-490020,INDIA, Durg-490023, Chhattisgarh

Tel: 91-0788-2223421; Mobile- 91-9406207572

E-Mail: ajayaksingh_au@yahoo.co.in; singha3@ukzn.ac.za

Educational Qualifications:

B.Sc.: Physics, Chemistry, Maths: Gorakhpur University, Gorakhpur (UP)1986

M.Sc.: Chemistry: Purvanchal University, Jaunpur (UP), 1988

D.Phil.: Chemistry: University of Allahabad, Allahabad (UP) 2002

Thesis topic – "Studies on kinetics and mechanism of some redox processes in solutions"

Academic- Achievements/Awards:

- Certificate of Merit - Awarded by American Chemical Society (Division of Environmental Chemistry), for co-authorship of the Oral Paper titled "Mechanism of the Formation of Silver Nanoparticles in the Aquatic Environment" at 247th National Meeting in Dallas, Texas
- Paper Review outstanding Award by Elsevier
- Qualified National Eligibility Test (NET-JRF) conducted by Joint Council of Scientific and Industrial Research-University Grant Commission (CSIR-UGC), New Delhi, India (June 1992).
- Junior Research Fellowship in Department of Chemistry, University of Allahabad, U.P., India. (From Feb.10, 1993 to July 18,1994)
- Teacher's Research Fellowship in Department of Chemistry, University of Allahabad, U.P. (From March 17, 2000 to March 16, 2002) awarded by University. Grant Commission. New Delhi, India.

- Proficiency in Handling & interpretation of data of AAS,FTIR.UV-visible spectrophotometer, XRD

Teaching Experience:

- Undergraduate and Postgraduate teaching from July1994 till date (nearly 29 Years)
- As an Assistant Professor from July 1994 to July 1996 (Govt.Science College Mungeli, Bilaspur),CG
- Assistant Professor from July 1996 to Nov. 2005 (Govt. College Utai, Durg),CG
- Assistant Professor from Nov.2005 –Aug.2016,(Govt.VYT PG Autonomous College Durg),CG
- Professor from Aug.2016 –till date (Govt.VYT PG Autonomous College Durg),CG

Administrative Experience:

- Deputy Examination Controller of Autonomous Cell
- Head of Department of Chemistry: 12 years
- Placement cell In charge:12 Years
- Nodal officer, Coordinator cell, Durg University
- Nodal officer/organizing Secretary: 16th Chhattisgarh Young Scientist Congress 2018 (Chhattisgarh Council of Science & Technology)

Other Experience:

- Member in Anti- ragging committee, Discipline committee, Student Union Committee, Admission Incharge of B.Sc.I (Maths), Research Committee, Member in Editorial Board of College Journal

Research Project Completed (Major/Minor):

- University Grant Commission (UGC), New Delhi funded project entitled "Transition metal catalyzed oxidation kinetics of some biologically active / industrially important compounds" for the period of 2006-2008 (Rs.60,000)
- Studies on Some chemically deposited nanocrystalline Thin Films doped with Transition metal and rare earth metallic ions, Funded by UGC for 2011-2014 (Rs 12,09,000/) for 2011-2014
- "Oxidative degradation of antibiotic/analgesic by Colloidal MnO_2 in micellar system", Funded by CCOST for 2013-2015 (Rs.5,00,000)
- "Treatment of wastewater by advanced oxidation process" Funded byCHHATTISGARH COUNCIL OF SCIENCE &TECHNOLOGY (CCOST) Raipur for 2017-2019 (Rs.4,63,000)
- **International Bilateral Co-operation Division**

  India- Bulgaria Bilateral Scientific and Technological Cooperation:

  Project entitled "Ultrahigh-Efficiency lead free Perovskite Solar cell"

  (**2019-2022**) Rs.11,82,350

Postdoctoral Student-01 Dr. Bhawana Jain (May 2014- May,2019) PDFWM-2013-14-GE-CHH-18784(SA-II))

Women Scientist Scheme-A(WOS-A)-01, Mrs. Jyoti Patel (2019-2022)

Ph.D. supervision: **Awarded-20**

Work in Progress: 8 candidates

Research Paper Published/accepted: 186

H-INDEX: 30 (Scopus)

35 (Google Scholar)

Book Chapters Published: 27

Edited Book : 04

Patents Granted: 05 including Indian Patent:02

1.German Utility Model Patent: AN INTENSIFIED SYSTEM USING MODIFIED ZINC OXIDE NANOPARTICLES FOR EFFECTIVE DYE REMOVAL FROM WASTEWATER
Grant number:20 2021 106116(IPC B01J23/06)

2.**South African Patent**: Evaluating the Efficacy of Photocatalytic Degradation of Drug Amoxicillin and Dye Sulphon Fast Black-F by Cu:ZnS Quantum Dot: Insights in to Kinetic Study and Influencing Factors
Grant Number: 2021/10082
Indian Patent: Grant number

https://www.scopus.com/authid/detail.uri?authorId=55487558500

https://scholar.google.co.in/citations?user=HjMc27oAAAAJ&hl=en

https://www.researchgate.net/profile/Ajaya-Singh

https://loop.frontiersin.org/people/338913/bio

https://orcid.org/0000-0001-8180-7292

Area of Research:

Oxidation Kinetics and Catalysis, Micellar Catalysis, Homogeneous Catalysis, Synthesis and Characterization of Nano-crystalline Solid Thin films for solar cell, Quantum dots, Graphene oxide, Adsorption of toxic materials through various nanomaterials, Advanced Oxidation process for Wastewater treatment, Perovskite materials for Solar Cell

Other Recognitions:

Honorary Research Fellow, School of Chemistry & Physics, University of KwaZulu-Natal, Durban, **South Africa**

Chief Editor: Proceedings of the National Seminar in Chemistry "Recent Trends in Chemical Sciences and Future Prospects"

- **Associate Editor**

Advances in Chemical Engineering and Science, Scientific Research Publishing, USA

Invited Member in the Editorial Advisory Board of the following Journals:

1) Walailak Journal of Science and Technology(WJST),Thailand
2) Journal of Chemistry, Hindawi Publishing Corporation, USA
3) Science Rise, Scientific International Journal, (Ukraine)
4) **Guest Associate Editor, Frontiers in Nanomaterials**
5) **Guest Associate Editor, Frontiers in Polymer Chemistry**
6) **Guest Associate Editor, Frontiers in Nanotechnology for Energy Applications**
7) Compounds, MDPI

Membership of Various Educational/Chemical Societies:

- Member of The National Academy of Sciences India (NASI), Allahabad
- Member, Israel Chemical Society
- Fellow, Royal Society of Chemistry
- Affiliate Member of IUPAC (2009-2010)
- Life member, Society for Materials Chemistry, BARC(LM-1128)
- Life Member, Indian Association of Chemistry Teachers (LM-784)
- Life Member, Luminescence Society of India (LM476)
- Member, American Nano Society
- Life member, Indian Chemical Society, Kolkata (LM-7219)
- Life member, Indian Science Congress Association (ISCA) LM-10849
- Life member of Indian Society for Surface Science & Technology (ISSST), Kolkata (LM- S-70)
- Life member of Indian Council of Chemists (ICC), Agra (LF 1080)
- Life member of Catalysis Society of India (CSI),Chennai
- Life member of Purvanchal Academy of Sciences(PAS), Jaunpur

Reviewers of the following Journals:

The Journal of Physical Chemistry, Langmuir, ACS Applied Polymer Materials, ACS Applied Nano Materials, Journal of Electronic Materials, Springer, Physica B: Condensed

Matter, Elsevier, Chemical Physics Letters,Elsevier,Materials Chemistry and Physics, Elsevier, Analytical Methods, Royal Society of Chemistry, Microchemical Journal, Elsevier, Ionics, Springer, Catalysis Letter, Springer,Journal of Colloid and Interface Science,Elsevier,Journal of Environmental Chemical Engineering, Elsevier, Journal of the Taiwan Institute of Chemical Engineers, Elsevier, Journal of Physical Organic Chemistry, Wiley, Synthetic Communications, Taylor & Francis,Chemical Engineering Journal, Elsevier,Coloration Technology, Wiley, Applied Catalysis A:General,Elsevier, Journal of Medicinal Plants Research, Academic Journals,Bioremediation Journal, Taylor & Francis,International Journal of Thermo physics, Springer, Natural Product Research, Taylor and Francis (UK),,Chinese Medicine, Scientific Research Publishing(USA),African Journal of Pure and Applied Chemistry, Academic Journals,Colloid and Polymer Science, Springer,

Keynote talks:

- International Conference on Recent Advances in Chemistry organized by Department of Chemistry, Jagannath University, Dhaka, Bangladesh (7-8 Feb,2020)
- National Webinar on Impact of Lock down period on Environmental Ecosystem in perspective of Indian Subcontinent organized by Govt G B College Hardi Bazar , Korba, Chhattisgarh(24.8.2020)

Invited Talks

- Kathmandu Humboldt Club Nepal, Kathmandu Nov..16-19,2022
  Title of Talk- Role of Nanotechnology for Advancement in wastewater treatment
- **Refresher Course UGC - HRDC, PRSU, Raipur(11-13 July,2022)**
  Topic: Advanced Oxidation Processes for Wastewater Treatment: Role of Nanomaterials"

- Ist International Conference on Functional Materials, Aug.,**24-26 2022** Organised by School of Physics, Pt. Ravishankar Shkula University, Raipur

- Refresher Course in Chemistry in collaboration with UGC-Human Resource Development Centre, GGV, Bilaspur organized by Dept. of Chemistry Guru Ghasidas Vishwavidyalaya, Bilaspur (**23rdAug -4th.Nov.2021**)
- Department of Chemistry at **Dhaka University**, Dhaka on 8th Feb.2017.
- Workshop on Different Funding Agencies and Art of Effective writing of research paper & Project organized by Govt. Digvijay Autonomous PG College Rajnandgaon, CG on 27.09.2017

- "35th Annual Conference of Bangladesh Chemical Society: Chemistry for Sustainable Development" Organized **by Bangladesh Chemical Society**,**07-09 December 2012.**
- "Synthesis, structural and optical Behavior of some chemically deposited nanocrysatalline this films" at the Seminar organized by Higher Education Enhancement Project under the Joint collaboration of the University Grants Commission of Bangladesh and the World Bank in the Department of Chemistry, University of Dhaka, Bangladesh, 10th December,2012
- "All India Conference (AICON)-2012" at Chhatrapati Shivaji Institute of Technology(CSIT), Durg (C.G.) India, 20th January,2012.
- Kathmandu Humboldt Club Nepal, Nov.15-18,2010
- Chemical-Congress 2008, organized by Nepal Chemical Society, Kathmandu, Nepal on May,23-25,2008

Research Paper presented:

- "1st International Conferences on "TAP SUN: The Sustainable Future", organized by Indo-German Nachkontakt Association (IGNA), Hyderabad, India, 25th-26th Nov. 2011,
- "XVI International Workshop on the Physics of Semiconductor Devices", organized by Indian Institute of Technology, Kanpur, India, 19th-22nd December, 2011.
- "National Seminar on Emerging Trends in Chemical Sciences", organized by Department of Chemistry, Kalyan PG College Bhilai Nagar (C.G.), India, 18th –19th November, 2011.
- Bangladesh Chemical Congress 2008 (BCC2008), Dhaka, Bangladesh (Jan.31-Feb2,2009)
- **International Conference Organized by Indian Council of Chemists at Bangkok** on 11-15th June 2011.
- **2nd Asia Symposium** on Colloidal and Surface Sciences held in Jinan, Shandong University , China, on Oct.28-31, 2007.
- Session Chaired:
- "National symposium on Fundamental and Analytical Aspects of Self organizing Systems" organized by Department of Chemistry, Kalyan Mahavidyalaya, Bhilai, India in collaboration with Indian Society for Surface Science & Technology(ISSST), Kolkata March 8-10, 2007.
- **"5th Chhattisgarh Young Scientist Congress** organized by Chhattisgarh Swami Vivekananda Technical University, Bhilai, Chhattisgarh, India (Feb 28 – March 1, 2007). Organizing Secretary/Co-Convenor
- Inspire Internship Programme sponsored by DST, New Delhi, for School students as Assistant Coordinator in **2017, 2018, 2019.**

- International Conference on Materials for Environments(ICME-2020) as Organizing Secretary (24-25 January, 2020)
- **16th Chhattisgarh young Scientist Congress-2018, Nodal officer** and Organizing Secretary,27-28th Feb, 2018
- National Science day as Nodal officer of the symposia in our College Jan 29-30, 2018
- "National Science Day" as organizing Secretary of Chemical/Physical Science in our College, 28th Feb,2016(Theme-Make in India: Science and Technology driven nnovation)
- One Day Seminar "Ujale Bhavisyaki Or" on 13 Feb,2016
- International Conference on "Recent Trends in Science and Engineering" as Co-convener on 15-16 Janauary,2016
- One Day Seminar on "Green Chemistry" as organizing Secretary on 30N0v.2015
- "National Science Day" as organizing Secretary of Chemical/Physical Science in our College, 28th Feb,2015(Theme-Science for Nation Building)
- "National Science Day" as organizing Secretary of Chemical/Physical Science in our College, 28th Feb,2014 (Theme-Fostering Scientific Temper)
- "National Science Day" as organizing Secretary, in the Department of Chemistry in our College, 28th Feb,2013(Theme-Genetically Modified Crops and Food Security)

List of Publications

Research Papers(Part-A,B,C)

Part A-

Original Research article published in International Peer Reviewed Journal

156. Bio-inspired hexagonal MoO nano-pencil rods for agrarian-pest control, **Journal of the Taiwan Institute of Chemical Engineers,**174(**2025**)106195
Name of Authors: S. Sreevidya,, Sushma Yadav,, Sunita Sanwaria,, Yokraj Katre,, Anil Kotasthane, **Ajaya Kumar Singh**, Sonia ´ A.C. Carabineiro
Impact factor: 6.0

155. Fe^{2+} -and Mn^{2+} -Codoped $CsPbCl_3$ Perovskite Nanocrystals for Enhancing Stability and Photophysical Performances**, ACS Applied Nano Materials 8(26)2025**
DOI: 10.1021/acsanm.5c02000
Name of Authors: Aditi Banjare, Dinabandhu Patra, Kamatham Narayanaswamy, Mahesh Kumar Ravva,Rama Shankar Singh,Surya Prakash Singh, **Ajaya Kumar Singh**
Impact factor: 5.3

154. Ambient temperature fabrication of ZIF-67 MOF: A Robust UV-activated photocatalyst for dye degradation, **Journal of Molecular Structure,** 1327(**2025**)141152
Name of Authors: Barsa Sahu,, Sunita Sanwaria, **Ajaya Kumar Singh** , Somnath, Jyoti Patel, Ravin Jugade
Impact factor: 4.0

153. Graphene based nanocomposites enhanced Fenton process for azo dye degradation, **Nano-Structures & Nano-Objects** 40 **(2024)** 101329

Name of Authors: Bhawana Jain, Walid Daoudi, Ajaya K. Singh , Garima Pravin Pandey, Surendra Prasad , Dakeshwar, Kumar Verma Elyor Berdimurodov
Impact factor:

152. Recent advances in electrochemical biosensors for the detection of pathogens, diseases biomarkers, and heavy metal ions, Inorganica Chimica Acta 574(2025) 122403

Name of Authors: Manoj Kumar Goshisht, Goutam Kumar Patra, Aabroo Mahal, Ajaya Kumar Singh, Shobha, Mahavir Parshad
Impact factor: 2.7

151. Phyto-nano-MgO quantum dots by ultrasonic formulation for evaluation of toxin In-Vivo/Vitro/Silico sequels, **Chemical Engineering Journal** 483(**2024**)149089

Name of Authors: S. Sreevidya , Sushma Yadavb , Sunita Sanwaria , Yokraj Katre , Anil Kotasthane , R. Senthil Kumar , **Ajaya Kumar Singh** , Md. Abu Bin Hasan Susan

Impact Factor: 15.1

150. Highly Fluorescent ZnO Composite of N-doped Carbon Dots From Dregea Volubilis for Fluorometric Determination of Glucose in Biological Samples, **Journal of Fluorescence** (2024) on line first

Name of Authors: Yogita Sahu, Rajmani Patel , **Ajaya K. Singh**, S. Singh,Vinayak Sahu, Md. Abu Bin Hasan Susan

Impact Factor: 2.7

149. Hydrophilic ionic liquid assisted hydrothermal synthesis of ZnO nanostructures with controllable morphology**, RSC Advances** 13(**2023**)17775

Name of Authors: Mousumi Akter, Md. Arif Faisal, **Ajaya Kumar Singh** and Md. Abu Bin Hasan Susan

Impact Factor: 4.04

148. Multifunctional Cu:ZnS quantum dots for degradation of Amoxicillin and Dye Sulphon Fast Black-F and efficient determination of urea for assessing environmental aspects, **Environmental Research235 (2023) 116674**

Name of Authors: Jyoti Patel, Kshitij RB Singh, Akhilesh Kumar Singh, Jay Singh **Ajaya K. Singh**

Impact Factor: 8.3

147. Comparison of biosorption efficiency for hexavalent chromium remediation in synthetic wastewater using unmodified and chemically modified chicken feathers, **Journal of Dispersion Science & Technology (In press)** DOI: 10.1080/01932691.2023.2215300

Name of Authors: Rupa Chakraborty, Anupama Asthana, **Ajaya Kumar Singh**, SushmaYadav, Sónia. A.C. Carabineiro

Impact Factor:2.1

146. Cellulose-Based Hydrogels Towards an Antibacterial Wound Dressing, **Biomaterials Science**, 11 (**2023**) 3461-3468

Name of Authors: Esteban Guamba , Nelson Santiago Vispo , Daniel C. Whitehead , **Ajaya Kumar Singh** , Ralph Santos-Oliveira , Dario Niebieskikwiat , Camilo Zamora- Ledezma[f] and Frank Alexis

Impact Factor: 7.6

145. Potential Development of N-Doped Carbon Dots and Metal-Oxide Carbon Dot

Composites for Chemical and Biosensing, **Nanomaterials**, 12(**2022**)3434.

Name of Authors: Yogita Sahu , Ayesha Hashmi , Rajmani Patel, Ajaya K. Singh, Md. Abu Bin Hasan Susan, Sónia A. C. Carabineiro

144. Implementation of 3ω Method for Studying the Thermal Conductivity of Perovskite Thin Films, **Crystals 12(2022) 1326**
Name of Authors: Mariya Aleksandrova, Ivailo Pandiev, **Ajaya Kumar Singh**

Impact Factor: 2.67

143. The influence of different complexing agents on the properties of tin dioxide (SnO_2) deposited thin films through chemical bath approach, **Physica B: Condensed Matter 650 (2023) 414520**
Name of Authors: N. Jaishree, Ayesha Hashmi , Y.R. Katre, Rama Sankar Singh , Jai Singh, Amit Srivastava**, Ajaya Kumar Singh**

Impact Factor: 2.98

142. Facile preparation of methionine-functionalized graphene oxide/ chitosan polymer nanocomposite aerogel for the efficient removal of dyes and metal ions from aqueous solutions, **Environmental Nanotechnology, Monitoring & Management** 18 **(2022**)100743
Name of Authors: Sushma Yadav, Anupama Asthana, **Ajaya K. Singh**, Jyoti patel, S. Sreevidya, Sónia. A.C. Carabineiro
Impact Factor: 5.65

141. Novel and green reduction of graphene oxide by capsicum annum: Its photocatalytic activity, **Journal of Natural Fibers,** 19(**2022**) 2539-2554

Authors name: A. Hashmi, **A. K. Singh**, A. A. P. Khan, A. M. Asiri.
Impact Factor: 5.323

140. Aloe Vera Functionalized Magnetic Nanoparticles Entrapped Ca Alginate Beads as Novel Adsorbents for Cu(II) Removal from Aqueous Solutions, **Nanomaterials 12(2022)** 2947.
Name of Authors: Surbhi Lilhare , Sunitha B Mathew , **Ajaya Kumar Singh** Sónia A C Carabineiro
Impact Factor: 5.6

139. Chicken feathers derived materials for the removal of chromium from aqueous solutions: Kinetics, isotherms, thermodynamics and regeneration studies, "**Journal of Dispersion Science and Technology**" 43(**2022**) 446–460

Name of the Authors: Rupa Chakraborty, A. Asthana, **Ajaya Kumar Singh**, Renu Verma, Sreevidya Sankarasubramanian, Sushma Yadav, Sónia A.C. Carabineiro, Md. Abu Bin Hasan Susan
Impact factor of the Journal: 2.262

138. Oxidative Degradation of Brilliant Green by Potassium Iodate in Acidic Medium: A Kinetic and Mechanistic Study , **Asian Journal; of Chemistry** 34(**2022**)1763
Name of Authors: Shakila bano, Vineeta Singh, Ayesha hashmi , Ashutosh Singh and **Ajaya Kumar Singh**

137. Synthesis and characterization of 2D structure of graphene oxide by using Phyllanthus Emblica: its photocatalytic activity on cationic dyes, **Fullerenes, Nanotubes and Carbon Nanostructures**, 30(4) (**2022**) 409–418
Name of Authors: Ayesha Hashmi,Ajaya K. Singh,Aftab Aslam Parwaz Khan, Abdullah M. Asiri
Impact Factor: 1.869

136. Solochrome Dark Blue Azo Dye Removal by Sonophotocatalysis Using Mn 2+ Doped ZnS Quantum Dots, ***Catalysts*** **2021,** 11, 1025
Name of Authors: Jyoti Patel , **Ajaya K. Singh** , Bhawana Jain , Sushma Yadav , Sónia A. C. Carabineiro and Md. Abu Bin Hasan Susan
Impact Factor:4.146

135: A Novel Chromogenic Scheme for the Determination of Cu(II) in Water Samples Analytical Chemistry Letters 11(6)2021)872-885
Name of Authors: Surbhi Lilhare, Sunitha B. Mathew & Ajaya Kumar Singh
Impact Factor: 1.23

134. Calcium alginate beads with entrapped iron oxide magnetic nanoparticles functionalized with methionine—a versatile adsorbent for arsenic removal, **Nanomaterials**11(2021)1345
Name of Authors: S. Lilhare, S.B.. Mathew, **Ajaya K. Singh**, Sonia A.C., Carabineiro.
Impact Factor: 5.076

133: Role of the CdS/ZnS core/shell quantum dots in the thin film lead-free perovskite solar Cells, "**Bulgarian Chemical Communication"**
Name of Authors: Mariya Aleksandrova, G. D. Kolev, R. Tomov, **Ajaya Kumar Singh**, K. C. Mohite, G.H. Dobrikov
Impact Factor of the Journal:0.398

132: Ga-doped ZnO coating – a suitable tool for tuning the electrode properties in the CdS/ZnS core-shell quantum dots based solar cells, ***"Crystals*** **2021,11"**
Name of Authors: Mariya Aleksandrova, Tatyana Ivanova, Velichka Strijkova, Tsvetozar Tsanev, **Ajaya Kumar Singh**, Jai Singh, Kostadinka Gesheva.
Impact Factor of the Journal:2.589

131. Methionine-functionalized graphene oxide/ sodium alginate bio-polymer nanocomposite hydrogel beads: Synthesis, isotherm and kinetic studies for an adsorptive removal of fluoroquinolone antibiotics, **Nanomaterials** 11**(**2021) 568
Name of Authors: Sushma Yadav, Anupama Asthana, **Ajaya Kumar Singh** *, Rupa Chakraborty, S. Sree Vidya, Ambrish Singh, Sonia A. C. Carabineiro
Impact factor of the Journal: **5.076**

130. Adsorption of cationic dyes, drugs and metal from aqueous solutions using a polymer composite of magnetic/ β-Cyclodextrin/ activated charcoal/ Na Alginate: Isotherm, kinetics and regeneration studies, ***J. Hazard. Mater.*** 409 (**2021**)124840
Name of the Authors: S. Yadav, A. Asthana, **A.K. Singh,** R. Chakraborty, S. Sree Vidya, M.A.B.H. Susan, S.A.C. Carabineiro
Impact Factor: 14.2

129. Ga-Doped ZnO Coating—A Suitable Tool for Tuning the Electrode Properties in the Solar Cells with CdS/ZnS Core-Shell Quantum Dots,Crystals 11(**2021**)137
Name of the Authors Mariya Aleksandrova, Tatyana Ivanova, Velichka Strijkova,Tsvetozar Tsanev, Ajaya Kumar Singh, Jai Singh, Kostadinka Gesheva
Impact Factor of the Journal:2.589

128. A simple spectrophotometric study of adsorption of Hg(II) on glycine functionalised magnetic nanoparticle entrapped alginate beads, **Int. J. Environ. Anal. Chem.** (In press (2021)
Name of the Authors: Surbhi Lilhare, Sunitha B. Mathew, **Ajaya Kumar Singh** and Sreevidya Sankarasubramanian
Impact factor of the Journal:1.76

127. Selective Spectrophotometric Method for the Determination of Mercury(II) in Water Samples, **Anal. Chem. Letter** 10 (5) **2020**, 654 – 666
Name of the Authors: Surbhi Lilhare, Sunitha B. Mathew, **Ajaya K. Singh**, Sónia A.C. Carabineiro,
Impact factor of the Journal: 1.6

126. Synthesis, characterization and antibacterial activity of a graphene oxide based NiO and starch composite material, "**Journal of Dispersion Science and Technology**" (In press)
Name of the Authors: Ranjana Dewangan, Anupama Asthana, **A. K. Singh**, Sónia A.C. Carabineiro
Impact factor of the Journal: 2.262

125. Control of surface functionalization of graphene-metal oxide polymer nanocomposites prepared by a hydrothermal method, **Polymer Bulletin**" 78(2021)8.
Name of the Authors: R. Dewangan, A. Asthana, **Ajaya Kumar Singh**,, Sonia A. C. Carabineiro.
Impact Factor:2.87

124. Micellar mediated novel method for the determination of selenium in environmental samples using chromogenic reagent, **Analytical Methods 12**(**2020**) 4327-4333
Name of the Authors: G. P. Pandey, **Ajaya Kumar Singh**,, L. Deshmukh, A. Asthana, M. Yoshida, S. Prasad.
Impact Factor: 2.896

123: Praseodymium-doped cadmium tungstate (CdWO4) nanoparticles for dye degradation with sonocatalytic process, **Polyhedron** 190(**2020**) 114792
Name of Authors: S. Ahmadi, A. Rahdar, C. A. Igwegbe, G. Z. Kyzas, Ajaya Kumar Singh,
Impact Factor: 3.052

122: Degradation of Methylene Blue and Methyl Violet Using Graphene Oxide/NiO/β-Cyclodextrin Nanocomposites as Photocatalyst" **International Journal of Environmental Analytical Chemistry**"

Name of Authors: R.Dewangan, Ayesha Hashmi, Anupama Asthana, Ajaya K Singh, Md Abu Bin H Susan

Impact factor of the Journal:1.76

121: Intensified elimination of aqueous heavy metal ions using chicken feathers chemically modified by a batch method, **Journal of Molecular Liquids,**312(**2020**)113475

Authors Name:Rupa Chakraborty, Anupama Asthana, **Ajaya Kumar Singh**, Sushma Yadav,Md. Abu Bin Hasan Susan, Sónia A.C. Carabineiro

Impact factor of the Journal: 6.165

120. Treatment of pharmaceutical wastewater by heterogeneous Fenton process: an innovative approach,**Nanotechnology for Environmental Engineering**5(**2020**)13

AuthorsName: Bhawana Jain,Ajaya K. Singh,Swati Banchhor, Sreekantha B. Jonnalagadda, Md. Abu Bin Hasan Susan

119. Assessing the Photocatalytic Degradation of Fluoroquinolone Norfloxacin by Mn:ZnS Quantum Dots: Kinetic Study, Degradation Pathway and Influencing Factors,

Nanomaterials 10(2020)964

Authors Name: Jyoti Patel, **Ajaya Kumar Singh**,SoniaA.C.Carabineiro

Impact Factor of The Journal:5.076

118. Zinc oxide nanoparticle incorporated on graphene oxide: an efficient and stable photocatalyst for water treatment through the Fenton process, **Advanced Composites and Hybrid Materials** https://doi.org/10.1007/s42114-020-00153-5

Authors Name: Bhawana Jain, Ayesha Hashmi, Sunita Sanwaria,**Ajaya K. Singh**, Md. Abu Bin Hasan Susan, Ambrish Singh

Impact Factor: 5.693

117. Sensing Ability of Ferroelectric Oxide Nanowires Grown in Templates of Nanopores, **Materials 13(2020)1777**

Authors name: MariyaAleksandrova, TsvetozarTsanev, Ashish Gupta, **Ajaya Kumar Singh**, Georgi Dobrikov, Valentin Videkov

Impact Factor of The Journal:**3.623**

116. Effect of micelles on hydrolysis of di-2,3-dichloroaniline phosphate, **Indian Journal of Chemistry-Section-A**59A(**2020**) 551-562

Authors name: Nisha Chhetri, Shashikala A. Bhoite, **Ajaya Kumar Singh**, Bhawana Jain

Impact Factor of The Journal:0.491

115. Catalytic Properties of Graphene Oxide Synthesized by a "Green" Process for Efficient Abatement of Auramine-O Cationic Dye, **Analytical Chemistry Letters,**10**(2020)**21-32

Authors name: Bhawana Jain, Ayesha Hashmi, Sunita Sanwaria, **Ajaya Kumar Singh**,Md. Abu Bin Hasan Susan &Sónia A.C. Carabineiro

Impact factor of the Journal: 1.4

114. Muffle atmosphere promoted fabrication of graphene oxide nanoparticle by agricultural waste, **FULLERENES, NANOTUBES AND CARBON NANOSTRUCTURES**

(https://doi.org/10.1080/1536383X.2020.1728744)
Authors name: Ayesha Hashmi , **Ajaya K. Singh** , Bhawana Jain , Ambrish Singh
Impact factor of the Journal: 1.869

113. Chloramine-T/N-Bromosuccinimide/FeCl3/KIO3 Decorated Graphene Oxide, Nanosheets and Their Antibacterial Activity, **Nanomaterials**, 10**(2020)** 105; doi:10.3390/nano10010105
Authors Name: Ayesha Hashmi, **Ajaya Kumar Singh**, Bhawana Jain, Sónia, Alexandra Correia Carabineiro.
Impact factor of the Journal: 5.076

112. Cationic Dye Removal Using Novel Magnetic/Activated Charcoal/βCyclodextrin/Alginate, Polymer Nanocomposite, **Nanomaterials,**10**(2020)**170; doi:10.3390/nano10010170
Authors Name: Sushma Yadav, Anupama Asthana, Rupa Chakraborty, Bhawana Jain, **Ajaya Kumar Singh**, Sónia A. C.Carabineiro, Md. Abu Bin Hasan Susan
Impact factor of the Journal: 5.076

111. Mechanistic investigation of osmium(VIII)catalyzed oxidation of brilliant green dye bychloramine-T in alkaline medium: a spectrophotometric kinetic study,**SN Applied Sciences**(Springer) 2(**2020**)245
Authors Name : Ajaya Kumar Singh, ShakilaBano, Bhawana Jain

110. Kinetics of micellar effect of non-ionic surfactant on oxidative degradation of ciprofloxacin**, Asian Journal of Chemistry**,32(**2020**)359-368
Authors Name: A.K., Singh, Shrivastava, A., Shrivastava, D.R., Patel, R., Sachdev,
Impact factor of the Journal: 0.535

109. Adsorption of hazardous chromium (VI) ions from aqueous solutions using modified sawdust: kinetics, isotherm and thermodynamic modeling, **International Journal of Environmental Analytical Chemistry** (In Press)
https://doi.org/10.1080/03067319.2019.1673743
Authors Name: Chakraborty, R., Verma, R., Asthana, A., Vidya, S.S., **Singh, A.K.**
Impact factor of the Journal: 1.76

108. Synthesis of Ag Nanoparticle-Decorated ZnO Nanorods Adopting the Low Temperature, Hydrothermal Method, **Journal of Electronic Materials,** 49 **(2020)** 637-642
Authors Name : Kanchana Shahi, R.S. Singh, Jai Singh, Maria Aleksandrova, **Ajaya Kumar Singh**
Impact factor of the Journal: 1.938

107. Kinetics and mechanistic study of oxidation of paracetamol: an accelerated catalytic Approach,**SN Applied Sciences**(Springer)1**(2019)**1380
Authors Name: Reena Negi, Bhawana Jain, Sunita Singh, **Ajaya Kumar Singh**, Anupama Asthana

106. Tailored Engineering of Bimetallic Plasmonic Au@AgCore@Shell Nanoparticles **ACS Omega**4 (**2019**) 18061-18075
Authors Name: Samira Mahmud, ShaziaSharminSatter, **Ajaya Kumar Singh**, M. MuhiburRahman, M. Yousuf A. Mollah, and Md. Abu Bin Hasan Susan
Impact factor of the Journal: 3.512

105. Structural, electronic and optical properties of ABTe2 (A = Li, Na, K, Rb, Cs and B =Sc, Y, La): Insights from first-principles computations,

Journal of Solid State Chemistry 279 **(2019)** 120954
Authors Name: L. Azzouz , M. Halit , M. Rerat , R. Khenata, **Ajaya K. Singh** , M.M. Obeid , Hamad R. Jappor, , Xiaotian Wang
Impact factor of the Journal: 3.498

104. Synthesis and characterization of PEDOT:PSS/ZnO nanowires heterojunction on ITO coated plastic substrate for light-emitting diodes,**Materials Today: Proceedings(2019)**
Authors Name: Kanchana Shahi, R.S.Singh, MariyaAleksandrova, **Ajaya Kumar Singh**
Impact factor of the Journal: 1.24

103. CdTe quantum-dot-modified ZnO nanowire heterostructure, **Applied Physics A**,124**(2018)**277
Authors Name: Kanchana Shahi, R S Singh, **Ajaya Kumar Singh**, MariyaAleksandrova, Rabah Khenata
Impact factor of the Journal: 2.584

102. Nanosize water soluble colloidal MnO2: An efficient oxidant for the ruthenium (III) catalyzed degradation of metronidazole", **Nanotechnology for Environmental Engineering (2018)** 3: 2.https://doi.org/10.1007/s41204-017-0030-y
Authors Name: Savita Pataila, Bhawana Jain, Gautam SheelThool, **Ajaya Kumar Singh**
Impact factor of the Journal: 2.45

101. Micellar catalyzed hydrolysis of mono-2,3-dichloroaniline phosphate, **Journal of Dispersion Science and Technology**,39**(2018)** 644-654
Authors Name: Nisha Chhetri, S. A. Bhoite, A. K. Singh
Impact factor of the Journal: 2.262

100. Mechanistic study of novel oxidation of D-arabinose by N-bromophthalimide in presence, of using micro-amount of chloro-complex of Ru(III) as a homogeneous catalyst, **Arabian Journal of Chemistry** 10**(2017)**965-974
Authors Name: Neerja Sachdev, **Ajaya Kumar Singh**, AlpaShrivastava, YokrajKatre,Aftab Aslam Parwaz
Impact factor of the Journal: 5.165

99. Arginine functionalized magnetic nano-sorbent for simultaneous removal of three metal, ions from water samples,**Royal Society of Chemistry Advances** RSC Adv.7**(2017)**51079-51089
Authors Name: Renu Verma,Anupama Asthana, Ajaya Kumar Singh and Surendra Prasad
Impact factor of the Journal: 3.36

98. Micellar oxidative transformation of ciprofloxacin: A kinetic and mechanistic approach, Environmental Chemistry,14(4)**(2017)** 231-242, https://doi.org/10.1071/EN17034
Authors Name: Alpa Shrivastava, **Ajaya Kumar Singh**, Neerja Sachdev , Dilip Raj Shrivastava, Surendra Prasad
Impact factor of the Journal: 2.923

97. Oxidative degradation of metronidazole by acidic potassium permanganate: A spectrophotometric kinetic study, **Journal of Indian Chemical Society,** 94**(2017)**1-8
Authors Name: Savita Pataila, Bhawana Jain, Gautam SheelThool, **Ajaya Kumar Singh**, Pradeep K. Sharma
Impact factor of the Journal: 0.284

96. Optical and structural properties of Zinc Oxide nanowires fabricated by hydrothermal method, **International Journal for Research in Applied Science and Engineering Technology**5**(2017)**715-719
Authors Name: Kanchana Shahi , R S Singh , **Ajaya Kumar Singh**
Impact factor of the Journal: 0.435

95. Degradation of naphthylazo anionic dye by Fenton and Fenton-like processes: AComparative study with Fast sulphon black-F, **Desalination and Water Treatment,**62 **(2017)** 252–256
Authors Name: Bhawana Jain, **Ajaya Kumar Singh**, Virender K Sharma
Impact factor of the Journal: 1.254

94. Novel glycine-functionalized magnetic nanoparticles entrapped calcium alginate beadsfor effective removal of lead, **Microchemical Journal**,130**(2017)** 168–178
Authors Name: Renu Verma, Anupama Asthana, **Ajaya Kumar Singh**, Surendra Prasad, Md. Abu Bin Hasan Susan
Impact factor of the Journal: 4.821

93. Hydrophilic ionic liquid-assisted control of the size and morphology of ZnO nanoparticles, prepared by a chemical precipitation method, **Royal Society of Chemistry Advances,**6**(2016)** 92040-92047
Authors Name: MousumiAkter, ShaziaSharminSatter, **Ajaya Kumar Singh**, M.Muhibur Rahman, M. Yousuf A. Mollah, Md. Abu Bin Hasan Susan
Impact factor of the Journal: 3.36

92. Oxidative degradation of norfloxacin by water soluble colloidal MnO2 in the presence of cationic surfactant, **Indian Journal of Chemistry:A**,55A**(2016)**1059-1067
Authors Name:Ajaya Kumar Singh, Neelam Sena&Som Kumar Chatterjee
Impact factor of the Journal: 0.491

91. Silver Nanoparticle Entrapped Calcium-Alginate Beads for Fe(II) Removal via Adsorption, **Macromol. Symp**. 366 **(2016)**42–51
Authors Name: Anupama Asthana, Renu Verma, **Ajaya Kumar Singh**, Md. Abu Bin Hasan, Susan, Rameshwar Adhikari
Impact factor of the Journal: 0.85

90. Kinetic study of oxidation of paracetamol by water soluble colloidal MnO2 in the presenceof an anionic surfactant, **Colloid and Polymer Science,**294**(2016)**1611–1622
Authors Name:Ajaya Kumar Singh, Neelam Sen, Som Kumar Chatterjee, Md. Abu BinHasan Susan
Impact factor of the Journal: 1.931

89. Highly flexible, conductive and transparent PEDOT:PSS/Au/PEDOT:PSS multilayer electrode for optoelectronic devices, **Materials Letters, 174** (2016) 204–208
Authors Name: MariyaAleksandrova , **Valentin Videkov**, **RadostIvanova**, **Ajaya KumarSingh**, **Gautam SheelThool**

Impact factor of the Journal: 3.423

88. Kinetic determination of trace amount of mercury(II) in environmental samples **Microchemical Journal**, 128 **(2016)**, 55-61

Authors Name: Garima Pravin Pandey, **Ajaya K. Singh**, Surendra Prasad,Lata Deshmukh,Anupama Asthana,Sunitha B.Mathew, Masafumi Yoshida

Impact factor of the Journal: 4.821

87. Glycine functionalized magnetic nanoparticle entrapped calcium alginate beads : A promising adsorbent for removal of Cu(II) ions, **Journal of Environmental Chemical Engineering**,4 **(2016)** 1985–1995

Authors Name: Anupama Asthana, Renu Verma, **Ajaya Kumar Singh**, Md. Abu Bin Hasan Susan

Impact factor of the Journal: 5.876

86. Studies on Structural, Morphological and Optical Properties of Chemically Deposited CdS1-xSex Thin Films, **Journal of Fluorescence,** 26(2016) 459-469 **AuthorsName:**Soumya R. Deo, **Ajaya K.Singh**, Lata Deshmukh,,Narendra Pratap Si nghMariya P. Aleksandrova

Impact factor of the Journal: 3.599

85. Kinetic and mechanistic study of micellar effect of hydrolytic reaction of di-2-methoxy-4-, nitroaniline phosphate, **Journal of Dispersion Science and Technology**,DOI:10.1080/01932691.**2016**.1146614

Authors Name: Homeshwari Yadav, S. A. Bhoite, **Ajaya Kumar Singh**

Impact factor of the Journal: 2.262

84. Micelle catalyzed oxidative degradation of paracetamol by water soluble colloidal MnO_2 in acidic medium, **Tenside Surfactants Detergents**

Authors Name:Ajaya Kumar Singh, Neelam Sen, Som Kumar Chatterjee

Impact factor of the Journal: 1.02

83. Effect of Surfactants on Hydrolysis of Mono-N-ethyl-o-toluidine Phosphate, **Tenside Surfactants Detergents,** 53,**(2016)** 182–194,

Authors Name: Homeshwari Yadav, S. A. Bhoite, **Ajaya Kumar Singh**

Impact factor of the Journal: 1.02

82. Shape tunable synthesis of Eu and Sm doped ZnO microstructures: a morphological Evaluation, **Bulletin of Materials Science**,38, **(2015)**1519–1525

Authors Name: Gautam SheelThool, Arunakumari M, **Ajaya K. Singh**, Surya Prakash Singh

Impact factor of the Journal: 1.783

81. Cowrie-Shell Architectures: Low Temperature Growth of Ni Doped CdS Film, **Journal of Alloys and Compounds**, 649, **(2015)**, 553–558

Authors Name: Gautam Sheel Thool, K. Sraveen, **Ajaya K. Singh**, U. Pal, and Surya Prakash Singh

Impact factor of the Journal: 5.316

80. Studies on structural, morphological and optical behavior of chemically deposited Cd0.5Pb0.5S thin films, **Optik - International Journal for Light and Electron Optics**,126**(2015)**, 2311–2317

Authors Name:Ajaya Kumar Singh, Soumya R Deo, Lata Deshmukh, L.J.Paliwal, R.S.Singh

Impact factor of the Journal: 2.443

79. Mechanistic study of $[RuCl_3(H_2O)_2OH]^-$catalyzed oxidation of L-leucine by acidic N-Bromophthalimide, **Journal of the Iranian Chemical Society,**12 **(2015)** 1717-1728
Authors Name: Bhawana Jain, Ajaya Kumar Singh, Reena Negi
Impact factor of the Journal: 2.019

78. Homogenous catalysis of Ru(III) for the oxidation of Thiamine by ChloramineT in acidic medium, **International J.Electrochem. Sci**.,10 **(2015)**759 – 774
Authors Name: Aftab Aslam Parwaz Khan, Anish Khan, Abdullah M. Asiri, **Ajaya Kumar Singh**
Impact factor of the Journal:1.765

77. Synthesis and Characterization of Cerium doped CdZnS nanoparticles, **Indian Journal of Physics**, 89**(2015)** 1153-1159
Authors Name: Ritu Shrivastava, Subhash Shrivastava, R S. Singh, A. K. Singh
Impact factor of the Journal: 1.947

76. Characterization of CdZnS Thin Film Grown by Using Different Capping Agents, **Materials Research Express**,2 **(2015)**036401
Authors Name: Ritu Shrivastava, Subhash Shrivastava, R S. Singh, **A .K. Singh**
Impact factor of the Journal: 1.618

75. Synthesis, morphological and Optical Properties of Nanocrystalline Solid Cu_xS Thin Films,**Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry**46**(2016)**570-582
Authors Name: Swati Mehra,**A.K.Singh**, Gautam SheelThool
Impact factor of the Journal:0.9

74. Synthesis and Optical properties of Nanocrystalline copper selenide thin films,CSVTU Research journal 7**(2014)**86-91
Authors Name: Swati Mehara,**Ajaya Kumar Singh**

73. Development of surfactant assisted kinetic method for trace determination of thallium in environmental samples, **Microchemical Journal**, 118(**2015**)150–157
Authors Name: Garima Pravin Pandey, **Ajaya K. Singh**, Lata Deshmukh, Surendra Prasad,Anupama Asthana
Impact factor of the Journal: 4.821

72. Cu-implanted ZnO nanorods array film: An aqueous synthetic approach, Journal of Alloys and Compounds, 618**(2015)** 421–427
Impact factor of the Journal: 5.316

71. Low temperature Mn doped ZnO nanorod array: Synthesis and its photoluminescence Behavior, **Ind. Eng. Chem. Res**.53, **(2014)**9383–9390
Authors Name:Ajaya Kumar Singh, Gautam SheelThool, Prakriti Ranjan Bangal,Sunkara SakunthalaMadhavendra, and Surya Prakash Singh
Impact factor of the Journal: 6.064

70. Facile synthesis of flat crystal ZnO thin films by solution growth method: A micro Structural investigation, **Journal of Saudi Chemical Society**,18 **(2014)** 712-721
Authors Name: Gautam SheelThool, **Ajaya Kumar Singh**, R. S. Singh, Ashish Gupta, Md. Abu Bin Hasan Susan
Impact factor of the Journal: 3.932

69. Structural, morphological and optical studies on chemically deposited nanocrystalline Gd- doped Cd0.5Zn0.5SeCd0.5Zn0.5Se thin film,**Optical and Quantum Electronics,**47 **(2015)** 2189–2198
Authors Name: Soumya R. Deo,**Ajaya K. Singh**,Lata Deshmukh,Ashish Gupta
Impact factor of the Journal: 1.837

68. Structural, Morphological and Optical Studies on Chemically Deposited NanocrystallineCdZnSe Thin Films,**Journal of Saudi Chemical Society**,18**(2014)** 327-339
Authors Name: Soumya R. Deo, **Ajaya K. Singh** , Lata Deshmukh, L.J.Paliwal, R. S. Singh,Ashish Gupta
Impact factor of the Journal: 3.932

67. Structural and Optical Properties of nanocrystallineCu_xS Solid Thin Films,**Austin Journal of Chemical Engineering**,1**(2014)**1-5
Authors Name:Ajaya KumarSingh , Swati Mehraand Gautam SheelThool
Impact factor of the Journal: 1.8

66. A novel and sensitive kinetic method for the determination of malathion usingchromogenic reagent,**Microchemical Journal**,113**(2014)**83-89
Authors Name: Garima Pravin Pandey, **Ajaya K. Singh**, Lata Deshmukh, Surendra Prasad,L. J. Paliwal, Anupama Asthana, Sunitha B.Mathew
Impact factor of the Journal: 4.821

65. Micellar effect on hydrolysis of 4-methyl-2-nitroaniline phosphate,**Colloid Journal,** 76**(2014)** pp 765-773
Authors Name: Bhawana Bairagi, S.A. Bhoite, **Ajaya Kumar Singh**
Impact factor of the Journal: 8.128

64. Determination of Dicofol in Various Environmental Sample by Spectrophotometric Method Using Chromogenic Reagents, **Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry,**45:8,**(2015)** 1199-1205
Authors Name: Garima Pravin Pandey, **Ajaya K. Singh**, Lata Deshmukh, Anupama Asthana
Impact factor of the Journal: 0.7

63. Kinetics of Cetyltrimethylammonium Bromide catalysed oxidation of Cyclopentanone by NBP in acidic medium,**Tenside Surfactants Detergents,** 51**(2014)**146–155
Authors Name: KamaliniTripathi, YokrajKatre,**Ajaya Kumar Singh**
Impact factor of the Journal: 1.02

62. Optical Characterization of the (Cd-Zn)S:$CdCl_2$ Thin Film Deposited by CBD Method, **International Journal of Advancements in Research & Technology**, 2 **(2013)** 152-158RituShrivastava, R. S. Singh, **A. K. Singh**
Impact Factor of the Journal:1.5

61. Influence of cetyltrimethylammonium bromide/sodium dodecylsulphate micelles on the oxidation of L-ariginine by N-bromophthalimide in presence of $HClO_4$,**Indian J Chemistry :A**,52A**(2013)**732-738
Authors: YokrajKatre, Namita Goyal, Radhika Sharma, **Ajaya Kumar Singh**
Impact factor of the Journal:0.491

60. Synthesis Of Copper Sulphide(CuS) Thin Film Bychemical Bath Deposition Method And Its Characterization
European Chemical Bulletin 2**(2013)**518-523
Authors:Ajaya Kumar Singh,SwatiMehra, Gautam SheelThool
Impact factor of the journal: 0.31

59. Growth and Characterization of Nanocrystalline CdSe Thin Solid Films,**Research on Chemical Intermediates**, 41(**2015**), 535-548
Authors: Soumya R. Deo, **Ajaya K. Singh** , Lata Deshmukh, Garima Pandey, R. S. Singh, Ashish Gupta
Impact factor of the journal: 2.914

58. Kinetics and mechanism of Aquachlororuthenium (III) catalyzed oxidation of tartaric acid by acid bromate.**The Open Catalysis Journal** 6,**(2013)**8-16
Authors:Ajaya Kumar Singh, Ashok Kumar Singh, Vineeta Singh, Ashish, Surya Prakash Singh, B.Singh

57. Oxidation behavior of L-threonine by N-bromophthalimide in micellar system of CTAB, **Journal of The Chilean Chemical Society**, 58**(2013)** 1524-1529. ISSN 0717 9707
Authors: YokrajKatre, Namita Goyal, Radhika Sharma, **Ajaya Kumar Singh**
Impact factor of the journal:1.034

56. Mechanistic aspects for the oxidation of brilliant green dye by chloramine-T in presence of perchloric acid: A spectrophotometric kinetic approach,**Research onChemical Intermediates,** 40**(2014)** 605-617,(Springer)
Authors:Ajaya Kumar Singh, ShakilaBano
Impact factor of the journal:2.914

55. Kinetic and mechanistic investigation of chlorocomplex of Ru(III) and Ir(III) catalyzed oxidation of D-Fructose by N-bromopthalimide in acidic medium,**Journal of Saudi Chemical Society**,20(**2016**)S357 (Elsevier)
Authors: Neerja Sachdev, **Ajaya Kumar Singh**, AlpaShrivastav, YokrajKatre
Impact factor of the journal:3.932

54. Impact of Micelle media on the kinetics of Oxidation of L-Lysine (An essential aminoacids) by N-bromopthalimide, **Journal of Dispersion Science and Technology**,34 **(2013)**1421-1428(Taylor & Francis)
Authors: YokrajKatre,NamitaGoel, **Ajaya Kumar Singh**
Impact factor of the journal: 2.262

53. Synthesis and effect of post-deposition thermal annealing on morphological and optical properties of ZnO thin film,**Research on Chemical Intermediates**,38 **(2012)** 2041-2049(Springer)
Authors:Ajaya Kumar Singh, Gautam SheelThool, Soumya R. Deo, R. S. Singh,Ashish Gupta
Impact factor of the journal: 2.914

52. Micelle catalyzed oxidative degradation of norfloxacin by chloramine-T,**Journal of Molecular Catalyst A: Chemical**,361**(2012)**1-11(Elsevier)
Authors: Alpa Srivastava, **Ajaya Kumar Singh**, N.Sachdeva, D.R.Srivastava,Y.R.Katre, S.P.Singh,Man Singh, J. C. Mejuto
Impact factor of the journal: 5.062

51. Kinetics and mechanism of oxidation reaction of lactose by N-bromophthalimide: Micelles used as a catalyst,**ColliodJourna**l 74 **(2012)** 391-400 (Springer)
Authors:Y.R.Katre,Minu Singh, A.K.Singh
Impact factor of the journal: 8.128

50. Oxidation of D-Glucose by NBP in the presence of chlorocomplex of Ir(III): A Kinetic andmechanistic study,**Research on Chemical Intermediate**,38**(2012)**507-521.(Springer)
Authors:Ajaya Kumar Singh, N.Sachdeva, Alpa Srivastava, Bhawna Jain, Y.R. Katre,
Impact factor of the journal: 2.914

49. Micellar effect on kinetic assessment of the oxidative degradation of Norfloxacin by chloramine-T,**Journal of Dispersion Science and Technology,**33 **(2012)** 1752-1761(Taylor & Francis)
Authors: Alpa Srivastava, **Ajaya Kumar Singh**,N.Sachdeva, D.R.Srivastava, Y.R.Katre.
Impact factor of the journal: 2.262

48. Synthesis and characterization of chemically deposited nanocrystallineCdSe thin film,**Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry**,41 **(2011)** 1346-1350.(Taylor & Francis)
Authors:Ajaya Kumar Singh, Soumya R. Deo, Gautam SheelThool, R. S. Singh,Y.R.Katre, Ashish Gupta.
Impact factor of the journal: 0.504

47. Pd(II) catalyzed oxidative degradation of paracetamol by chloramine-T in acidic and alkaline media, **Industrial & Engineering Chemistry Research,**50 **(2011)** 8407-8419(American Chemical Society)
Authors:Ajaya Kumar Singh, Reena Negi, Bhawana Jain, YokrajKatre, Surya Prakash Singh,and Virender Kumar Sharma.
Impact factor of the journal: 3.72

46. Influence of cationic micelle on the oxidation of acetaldehyde by N-bromophthalimide,**Journal of Dispersion Science and Technology,**33 **(2012)** 863-870 (Taylor & Francis)
Authors: Y R Katre, Radhika Sharma, G. K. Joshi, **Ajaya Kumar Singh**
Impact factor of the journal: 2.262

45. Kinetic Study of Oxidation of Galactose by N- Bromophthalimide in the presence of cationicmicelle in acidic medium,**Research on Chemical Intermediates,**38 **(2012)** 179-193. (Springer)
Authors:Y.R.Katre, Savita nayak, G.K.Joshi, **Ajaya Kumar Singh**
Impact factor of the journal: 2.914

44. Catalytic effect of Cetyltrimethylammonium Bromide on the oxidation of Oxalic acid by N-Bromophthalimide in Acidic medium,**Journal of Dispersion Science and Technology**,33 **(2012)** 1038-1045. (Taylor & Francis)
Authors: YokrajKatre, S.RajaniMudliar, Ghanat K Joshi, **Ajaya K Singh**
Impact factor of the journal: 2.262

43. Micelle catalysed oxidation of 4-Methyl, 2-Pentanone by NBP in the presence of acetic acid,**Journal of Dispersion Science and Technology**,33**(2012)**447-456.(Taylor & Francis)
Authors: Y. R. Katre, KamalniTripathi,**Ajaya K. Singh**
Impact factor of the journal: 2.262

42. Effect of anionic surfactant on the oxidation of DL-aspartic acid by N-bromophthalimide: Akinetic study,**Journal of Dispersion Science and Technology**,32**(2011)**1434-1444.(Taylor & Francis)
Authors: Y.R. Katre, Ghanat K. Joshi and **Ajaya K. Singh**
Impact factor of the journal: 2.262

41. Influence of cetyltrimethylammonium bromide/sodium dodecylsulfate micelles on the oxidation of D-fructose by N-bromophthalimide in presence of sulfuric acid: a kinetic study,**Oxidation Communications,**34 **(2011)** 273-291.
Authors: YokrajKatre, Minu Singh, **Ajaya K. Singh**
Impact factor of the journal: 0.541

40. Kinetics and Mechanism of Cetyltrimethylammonium Bromide Catalyzed N-Bromosuccinimide Oxidation of D-Mannose in Acidic Medium,**Journal of Dispersion Science and Technology,**32**(2011)** 903-912. (Taylor & Francis)
Authors: YokrajKatre, Minu Singh, **Ajaya Kumar Singh**
Impact factor of the journal: 2.262

39. Micellar Effect upon Kinetics of Oxidation of Acetophenone by N-Bromophthalimide in Aqueous Acetic acid medium, **Journal of Dispersion Science and Technology,**32**(2011)**341-351. (Taylor & Francis)
Authors: Y. R. Katre, K. Tripathi,G. K. Joshi, **Ajaya K. Singh**
Impact factor of the journal: 2.262

38. Characterization and optical studies of CdSeNanocrystalline thin films,**Digest Journal of Nanomaterials and Biostructures,**6 **(2011)** 433-442.
Authors:R.S.Singh, S.Bhushan, **Ajaya K Singh**, S.R. Deo
Impact factor of the journal:0.963

37. Effect of CTAB micelle on the oxidation of L-Leucine by N- Bromophthalimide: A kinetic study,**ZeitschriftfürPhysikalischeChemie**,225**(2011)**1-19.
Authors: Y. R. Katre, NamitaGoel, **Ajaya K Singh**
Impact factor of the journal:1.356

36. An efficient and mild procedure for the preparation of aldonic acids via oxidation of D-sucrose by employing N-bromophthalimide oxidant and micellar system,**Tenside Surfactants Detergents,**48**(2011)**1-9.
Authors:Y.R. Katre, M. Singh,**Ajaya K Singh**
Impact factor of the journal: 1.02

35. A novel and facile oxidation of D-Glucose by N-bromophthalimide in the presence ofchloro -complex of ruthenium (III),**Synthesis and Reactivity in Inorganic, Metal Organic, and Nano-Metal Chemistry,**40**(2010)**947-954. (Taylor & Francis)
Authors:Ajaya K Singh, N. Sachdev, A.Srivastawa, Y. R. Katre, S.P.Singh
Impact factor of the journal:1.63

34. Characterization and optical studies of Sm^{3+} and Dy^{3+}doped chemically deposited CdS-Sefilms,**Journal of Ovonic Research**, 6**(2010)** 211 – 219.
Authors: R. S. Singh, S. Bhushan, A. K. Singh

Impact factor of the journal: 0.687

33. Studies on nano-crystalline properties of chemically deposited CdSe films, **Chalcogenide Letters**,7 **(2010)** 465-471.
Authors: R. S. Singh, S. Bhusan, **A. K. Singh**
Impact factor of the journal : 0.76

32. Kinetic Study of Ru(III)-catalyzed oxidation of glycine by N- bromophthalimidein acidic medium, **Transition Metal Chemistry**, 35(**2010**) 407-414.(Springer)
Authors:Ajaya K Singh, B. Jain, R. Negi, Y.R.Katre, S.P.Singh, V.K.Sharma
Impact factor of the journal:1.588

31. Kinetic Study of oxidation of valine by N-bromophthalimide in presence of iridium (III) chloride as homogenous catalyst, **Synthesis and Reactivity in Inorganic, Metal Organic, and Nano-Metal Chemistry**,40(2010)71-77.(Taylor & Francis)
Authors:Ajaya K Singh,B. Jain, R. Negi, Y.R.Katre, S.P.Singh, V.K.Sharma
Impact factor of the journal: 0.6

30. Effect of micellar aggregates on the kinetics of dextrose oxidation by N-bromosuccinimide, **Tenside Surfactants Detergents**,47(2010)98-105.
Authors: Y.R. Katre, M. Singh, **Ajaya K Singh**
Impact factor of the journal: 1.02

29. Kinetic Study of Oxidation of DL-Serine by N-Bromophthalimide in thepresence of Sodium Dodecyl Sulfate, **Journal of Dispersion Science andTechnology,** 31(**2010**)108-116. (Taylor & Francis)
Authors: Y. R. Katre, Ghanat K. Joshi ,**Ajaya K.Singh**
Impact factor of the journal: 2.262

28. Kinetics and mechanism of Ru(III) catalyzed oxidation of paracetamol by chloramine-T in aqueous acidic medium,**Catalysis Letters**,132(**2009**)285.(Springer)
Authors:Ajaya K Singh, Reena Negi, Bhawana Jain, Y.R.Katre, S.P.Singh, V.K.Sharma
Impact factor of the journal:3.186

27. Kinetics and mechanism of oxidation of β-Alanine by N-bromophthalimide in presence of Ru(III) chloride as homogenous catalyst in acidic medium,**TransitionMetal Chemistry,**34(**2009**)521-528. (Springer)
Authors:Ajaya K Singh, B. Jain, R. Negi, Y.R.Katre,S. P. Singh, V. K. Sharma.
Impact factor of the journal:1.588

26. Kinetic and Mechanistic study of the influence of Micelles on the Oxidation of Acetone by N-Bromophthalimide in Aqueous Acetic Acid medium, **TensideSurfactants Detergents,**46(**2009**)218-227.
Authors: Y. R. Katre, K. Tripathi,G. K. Joshi, **Ajaya K. Singh**
Impact factor of the journal: 1.02

25. A novel oxidation of valine by N-bromophthalimide in the presence of Ruthenium(III) chloride as a homogeneous catalyst, **Catalysis Letters,** 131(**2009**)98-104. (Springer)
Authors: Ajaya K Singh, Bhawana Jain, Reena Negi, Y.R.Katre, S.P.Singh, V.K.Sharma
Impact factor of the journal:2.85

24. Mechanistic study of Ir (III)-catalyzed oxidation of D-glucose by potassium iodate in

alkaline medium, **Journal of Carbohydrate Chemistry,**28(2009)278-292.(Taylor & Francis)

Authors: S. P. Singh, A. K. Singh, **Ajaya Kumar Singh**

Impact factor of the journal:1.667

23. Mechanistic study of novel oxidation of paracetamol by chloramine-T usingmicro-amount of chloro-complex of Ir (III) as a homogeneous catalyst in acidic medium, **Journal of Molecular Catalysis A: Chemical**, 302(**2009**)36-42. (Elsevier)

Authors:Ajaya Kumar Singh, Reena Negi,Y.R.Katre,S.P.Singh

Impact factor of the journal: 5.062

22. Oxidation of valine by N-bromophthalimide in presence of chloro-complex of Pd(II) as homogenous catalyst: A kinetic and mechanistic study,**The Open Catalysis Journal** 2(**2009**)12-21.

Authors:Ajaya K. Singh, Bhawana Jain, Y.R.Katre, S.P.Singh

Impact factor of the journal: 4.146

21. Micelle-assisted N-bromophthalimide oxidation of fructose in the presence of sulfuric acid. Acta Physico-ChimicaSinica 25 (2009) 319-326.

Authors: Y.R. Katre, M. Singh, S. Patil, **Ajaya K Singh**

Impact factor of the journal:0.53

20. Oxidation of L-alanine by N-bromophthalimide in the presence of sodiumdodecyl sulfate: A kinetic study,**Kinetics & Catalysis**,50(2009)367-376.

Authors: Ghant Kumar Joshi, Y. R. Katre, **Ajaya Kumar Singh**

Impact factor of the journal:.0.99

19. Effect of ionic micelle on the oxidation of diethylene glycol by N-bromophthalimide. **Journal of Dispersion Science and Technology**, 30 (**2009**) 4 (Taylor & Francis)

Authors: Y.R. Katre, Kalpana Sahu, Sangeeta Patil, **Ajaya K. Singh**

Impact factor of the journal: 2.262

18. Kinetics and mechanism of oxidation of glycine by N-bromophthalimide in thepresence of chlorocomplex of Ir(III) as homogeneous catalyst,**OxidationCommunications**,2(2009)355.(SciBulCom Ltd, Bulgaria)

Authors:Ajaya Kumar Singh, Bhawana Jain, Y. R. Katre

Impact factor of the journal: 0.541

17. Effect of cationic micelle on the kinetics of oxidation of citric acid by N-bromophthalimide in acidic medium, **Journal of Dispersion Science and Technology**,30 (2009) 159-165. (Taylor & Francis)

Authors: YokrajKatre, Sangeeta patil and **Ajaya Kumar Singh**

Impact factor of the journal: 2.262

16. First and novel oxidation of D-fructose by potassium iodate using$[IrCl_3(H_2O)_2OH]^-$ complex as a homogeneous catalyst inalkaline medium, **Journal of Molecular Catalysis A: Chemical, 293(2008**) 97-102 (Elsevier)

Authors: S. P. Singh, Ashok Kumar Singh, **Ajaya Kumar Singh**

Impact factor of the journal: 5.062

15. Effect of cationic micellar Aggregates on the kinetics of dextrose oxidationbyN-Bromophthalimide, **Journal of Dispersion Science and Technology,**29 (**2008**) 1412-1420 (Taylor & Francis)

Authors: YokrajKatre, Minu Singh, Sangeeta Patil, and**Ajaya Kumar Singh**

Impact factor of the journal: 2.262

14. Effect of Cetyltrimethylammonium bromide on the oxidation of β-alanine by N-bromophthalimide in acidic medium,**Tenside Surfactants Detergents**, 45 (**2008**)213-221.(Carl Hanser Verlag, Germany)
Authors: Ghanat K. Joshi, Y.R.Katre, **Ajaya Kumar Singh**
Impact factor of the journal: 1.02

13. Oxidation of lactic acid by N-bromophthalimide in micelle of cetyl trimethylammonium bromide: A kinetic study,**Oxidation Communications**, 31(2008)176-187.(SciBulCom Ltd, Bulgaria)
Authors: Sangeeta Patil, YokrajKatre ,**Ajaya Kumar Singh**
Impact factor of the journal: 0.451

12. Micellar effect on the kinetics of oxidation of malic acid by N-bromophthalimide, **Colloids and Surfaces A: Physicochemical and Engineering Aspects**,308(2007) 6-13. (Elsevier)
Authors: Sangeeta Patil,Yok Raj Katre and **Ajaya Kumar Singh**
Impact factor of the journal: 4.539

11. A kinetic and mechanistic study on the oxidation of hydroxy acids by N-bromophthalimide in presence of micellar system, **Journal of Surfactants and Detergent**,10(2007) 175- 184. (Springer)
Authors: Sangeeta Patil,Yok Raj Katre and **Ajaya Kumar Singh**
Impact factor of the journal:1.902

10. Mechanistic study of Pd (II) catalyzed oxidation of crotonic acid by periodate in aqueous perchloric acid medium, **Journal of Molecular catalysis A: Chemical**,266 (231-235) 2007 (Elsevier)
Authors: Ashish, S. P. Singh, **Ajaya Kumar Singh**, B. Singh
Impact factor of the journal: 5.062

9. Kinetics of glycine oxidation by N-bromophthalimide in presence of sodium dodecyl Sulphate, **Journal of Surfactant and Detergent**, 9 (2006)231-235.(Springer)
Authors: GhanatK.Joshi, Y.R.Katre , **Ajaya Kumar Singh**
Impact factor of the journal: 1.902

8. Ruthenium(III) catalyzed oxidation of diethanolamine and triethanolamine by Br (V) in presence of perchloric acid: A kinetic and mechanistic study,**Journal ofChemical Research**8(**2006**)56-63.(Science Reviews 2000 Ltd, UK)
Authors: Ashok Kumar Singh, **Ajaya Kumar Singh**, V. Singh, S. Rahmani, B. Singh
Impact factor of the journal: 22.38

7. Oxidation of DL-valine and DL-alanine by sodium N-chloro-4-methyl benzenesulphonamide in micellar medium: a relative kinetic Study,**Oxidation Communications**,29(2006)137-146. (SciBulCom Ltd, Bulgaria)
Authors:Y.R.Katre, **Ajaya Kumar Singh**, G. K. Joshi and Sangeeta Patil
Impact factor of the journal: 0.541

6. Kinetic studies in the mechanism of oxidation of DL-serine by chloramine –T in micellar System, **Oxidation Communication**, 29(2006) 129-136(SciBulCom Ltd, Bulgaria)
Authors: Y. R. Katre, **Ajaya Kumar Singh** ,Sangeeta Patil and G.K.Joshi
Impact factor of the journal: 0.541

5. Kinetics and mechanism of oxidation of maltose by aqueous alkaline solution of periodate, **OxidationCommunications,**28(2005)630- 635.(SciBulCom Ltd, Bulgaria)
Authors: Ashish, Surya Prakash Singh and **Ajaya Kumar Singh**.
Impact factor of the journal: 0.541

4. Ruthenate ion catalysed oxidation of D-galactose and D-xylose by alkaline solution of sodium meta-periodate: A kinetic study,**Journal of Chemical Research** 5(**2005**)304-310 (Science Reviews 2000 Ltd, UK)
Authors: A. K. Singh,N. Chaurasia, S. Rahmani, J.Srivastava, **Ajaya Kumar Singh**
Impact factor of the journal: 22.38

3. Mechanism of Pd (II) and Hg (II) co-catalyzed oxidation of D-mannose and maltoseby acidic solution of N-bromoacetamide.**Journal of MolecularCatalysis A: Chemical** 197(**2003**)91-100.(Elsevier)
Authors: A. K. Singh,V. Singh, S. Rahmani, **Ajaya Kumar Singh** ,B. Singh
Impact factor of the journal: 5.062

2. Kinetics and mechanism of Ru(III) and Hg(II) catalyzed oxidation of D-galactose and D-ribose by N-bromoacetamide in perchloric Acid, **Carbohydrate Research**, 337(2002)345- 351. (Elsevier)
Authors:A. K. Singh, V. Singh, **Ajaya Kumar Singh**, Neena Gupta, B. Singh
Impact factor of the journal:2.104

National Journals

1. Kinetics of oxidation of crotonic acid by N-chloro-p-toluenesulphonamide in the presence of Pd(II) and Os(VIII) as homogeneous catalyst,43A(**2004**)1645-1653.
Authors: Ashish, **Ajaya Kumar Singh**, Ashok Kumar Singh and B. Singh
Impact factor of the journal:0.891

Part B

Review Articles, Proceedings and Book Chapters

Review Articles, Proceedings

30. Metal-Catalyzed Coupling of N-Tosylhydrazones with Compounds Containing C−H/Heteroatom-H Bonds, Asian Journal of Organic Chemistry 13(9) **2025 (Wiley)**

Name of Authors: Akanksha, **Ajaya K. Singh**, Anupama Asthana, Rangnath Ravi, Abadh Kishor Jha
Impact Factor: 2.8

29. Users Opinion About Synthetic, Bio- and Nanobiopesticides, **Journal of Natural Pesticide Research** 6**(2023)** 100058

Name of Authors: S. Sreevidya , Kirtana Sankarasubramanian , Yokraj Katre , Sushma Yadav , Anupama Asthana , Ajaya Kumar Singh , Frank Alexis , Sonia ´ A.C. Carabineiro

28. Editorial: Modification of polymers with gamma radiation for various high-Performance applications, **Frontiers in Chemistry** 10(**2022**) 1042056

Name of Authors: A.K.Singh, R. Adhikari, M.A.B.H.Susan,

Impact Factor: 5.23

27. Ionic liquids as green and smart lubricant application: an overview, **Ionics** 28 (**2022**) 4923

Name of Authors: Dakeshwar Kumar Verma, Yeestdev Dewangan, Ajaya Kumar Singh, Raghvendra Mishra, Md Abu Bin Hasan Susan, Rajae Salim, Mustapha Taleb, Fadoua El Hajjaji & Elyor Berdimurodov

Impact Factor: **2.96**

26. Potentialities of graphene and its allied derivatives to combat against SARS-CoV-2 infection, **Materials Today Advances**,13 (2022) 100208

Name of Authors: Ayesha Hashmi , Vanya Nayak , Kshitij RB Singh, Bhawana Jain , Mitisha Baid, Frank Alexis, Ajaya Kumar Singh

Impact Factor: **7.579**

25. Adsorption of heavy metal ions by various low cost adsorbents: A review, **International Journal of Environmental Analytical Chemistry,** 102(2022) 342–379

Authors Name: Rupa Chakraborty, Anupama Asthana, **Ajaya Kumar Singh**,BhawanaJain,Md. Abu Bin Hasan Susan

Impact factor of the Journal: 1.76

24. A comprehensive review on Cu2ZnSnS4 (CZTS) thin film for solar cell: forecast issues and future anticipation, Optical and Quantum Electronics 53(**2021**)656

Name of Authors: Mitisha Baid, Ayesha Hashmi, Bhawana Jain, Ajaya Kumar Singh, Md. Abu Bin Hasan Susan, Mariya Aleksandrov

Impact Factor: 2.084

23: Removal of Hydrophobic Contaminants from the Soil by Adsorption onto Carbon

Materials and Microbial Degradation, **C – Journal of Carbon Research,** C **2021,** 7, 83

Name of Authors: Shippi Dewangan, Amarpreet K. Bhatia, **Ajaya Kumar Singh** and Sónia A. C. Carabineiro

22. Potentialities of bioinspired metal and metal oxide nanoparticles in biomedical sciences, RSC Advances 11(40)(**2021**)24722-24746

Name of Authors: Kshitij RB Singh, Vanya Nayak, Jay Singh, A**jaya Kumar Singh** and Ravindra Pratap Singh

Impact Factor: 3.245

21. Facile Synthesis of Bismuth-Based Perovskite and Solvent Engineering for Improving the Crystallinity of Lead-Free Perovskite Material: A Microstructural Exploration, 2021 6th International Symposium on Environment-Friendly Energies and Applications (EFEA), 2021, pp. 1-5, doi: 10.1109/EFEA49713.2021.9406228.

Name of Authors: Ayesha Hashmi, Bhawana Jain, Jai Singh, Mariya Aleksandrova, **Ajaya Kumar Singh**.

20. Fabrication of Transparent ITO/Ga-Doped ZnO Coating as a Front Panel Electrode toward Efficient Thin Film Solar Cells, "**Conference Proceedings Paper, The 2nd Coatings and Interfaces Web Conference, 2020"**

Name of Authors: Mariya Aleksandrova, Tsvetozar Tsanev, Tatyana Ivanova, Kostadinka Gesheva, Velichka Strijkova, Jai Singh, **Ajaya Kumar Singh**

Impact factor of the Journal: 2.881

19. Role of the absorber layer in the thin film solar cells with perovskites, Alternative Energy Sources, Materials & Technologies, 2, (**2020**) 87 – 88.
Alternative Materials, Energy Materials Science

Name of Authors: Mariya Aleksandrova, G.D. Kolev, R. Tomov, **Ajaya Kumar Singh**, K.C. Mohite, G.H. Dobrikov

18. Potentialities of Selenium Nanoparticles in Biomedical Sciences, **New Journal of Chemistry** 45(**2021**) 2849-2878

Name of Authors: Vanya Nayak, Kshitij RB Singh, **Ajaya Kumar Singh**, and Ravindra Pratap Singh

Impact factor of the Journal:3.591

17. Mn-Doped ZnS Quantum dots–An Effective Nanoscale Sensor, **Microchemical Journal**155**(2020)**104755

Authors name: Jyoti Patel , Bhawana Jain , **Ajaya K. Singh**, Md. Abu Bin Hasan Susan, Lellouche Jean- Paul

Impact factor of the Journal: 4.821

16. Oxidative behavior of N-bromophthalimide for organic compounds: a review, **SN Applied Sciences**98**(2019)386** 1:98 | https://doi.org/10.1007/s42452-018-0100-1

Authors Name: Bhawana Jain, Reena Negi, Ajaya Kumar Singh

15. Synthesis and morphological study of Mn doped ZnS films, **Materials Today: Proceedings**5 **(2018)** 15158-15164

Authors Name: Gautam SheelThool, Mitisha Baid, **Ajaya Kumar Singh**, N.P.Singh

Impact factor of the Journal: 1.24

14. Treatment of organic pollutants by homogeneous and heterogeneous Fenton reaction processes, **Environmental Chemistry Letters(2018)** (doi.org/10.1007/s10311-018-0738-3)

Authors Name: Bhawana Jain, Ajaya K. Singh, Hyunook Kim, Eric Lichtfouse and Virender K. Sharma

Impact factor of the Journal: 9.027

13. Flexible optoelectronic device with polymer based electrode on hybrimer substrateImpact of the bending on the interfacial processes, **Proceedings of the International Spring Seminar on Electronics Technology(2017)** 12

Authors Name:M. Aleksandrova, G.Dobrikov, **Ajaya K. Singh**, V.Videkov,G.Kolev

Impact factor of the Journal: 0.55

12. Recent progress in multicolor tuning of rare earth-doped gadolinium aluminate phosphors,**Optical and Quantum Electronics,** 49**(2017)** 344 DOI 10.1007/s11082-017-1158-5

Authors Name: Reena K. Sajwan, Samit Tiwari, Tulika Harshit, Ajaya Kumar Singh

Impact factor of the Journal: 2.084

11. CdZnSSe Thin Film for Photovoltaic Device, **Materials Today-Proceedings** 4(2017)5537-5543

Authors Name: Soumya R. Deo, **Ajaya K. Singh**, Lata Deshmukh,M.Aleksandrova

Impact factor of the Journal: 1.24

10. Metal chalcogenide nanocrystalline solid thin films, **Journal of Electronic Materials**,44 **(2015)** 4098-4127

Authors Name:Ajaya Kumar Singh, Soumya R Deo, Lata Deshmukh,Md.Abu Bin Hasan Susan

Impact factor of the Journal: 1.938

9. Photocatalytic degradation of an azo dye with ZnO nanoparticles,**AIP Conference Proceedings**,1536**(2013)**243-244

Authors: Garima Pravin Pandey, **Ajaya K. Singh**, Lata Deshmukh, Anupama Asthana, andSoumya R. Deo **Impact Factor of the Journal:0.402**

8. Effect Of Annealing On Structural & Optical Behavior Of Nanocrystalline $Cd_{0.5}Zn_{0.5}S$ Thin Films,**AIP Conference Proceedings**,1536(2013)251-252 **Impact Factor of the Journal:0.402**

Authors: Soumya R. Deo , **Ajaya K. Singh**, Lata Deshmukh, Garima Pandey

7. Kinetic Study of Ruthenium(III) Catalyzed Oxidation of Lactic Acid by Potassium Bromate. Proceedings of The National Seminar in Chemistry Recent Trends in Chemical Sciences and Future Prospects(2012) 6-13.

Author: Ajaya Kumar Singh

6. Kinetics and mechanism of iridium(III) Catalysed oxidation of norfloxacineby chloramine-T in acidic medium.Proceedings of The National Seminar in Chemistry Recent Trends in Chemical Sciences andFuture Prospects (2012) 28-37.

Authors:Ajaya Kumar Singh& V.S. Geete

5. Photoluminescence Studies in Chemically Deposited CDSs: CDCl2 Thin Films Proceedings of The National Seminar in Chemistry Recent Trends inChemical Sciences and Future Prospects (2012) 60-63.

Authors: RituShrivastava, R.S. Singh and **A.K. Singh**

4. Experimental Study about Effect of Jatropha Biodiesel in Physicochemical Properties of Mixture with Additive. Proceedings of The National Seminar in Chemistry Recent Trends in Chemical Sciences andFuture Prospects (2012)73-80.

Authors:Ajaya Kumar Singh, Swati Mehra

3. Kinetics and Mechanism of Ru(III) Catalysed Oxidation of Norfloxacine by Chloramine-T in Acidic medium. Proceedings of The National Seminar in Chemistry Recent Trends in Chemical Sciences andFuture Prospects (2012) 89-96

Authors:Ajaya Kumar Singh and V.S. Geete

2. Effect of CTAB on the oxidation of Butanone by NBP. Proceedings of The National Seminar in Chemistry Recent Trends inChemical Sciences andFuture Prospects (2012) 97- 113.

Authors:Y.R. Katre, KamalniTripathi and**Ajaya K. Singh**

1. Cationic micellar Oxidation of Salicylaldehyde by N-Bromophthalimide. Proceedings of The National Seminar in Chemistry Recent Trends inChemical Sciences andFuture Prospects (2012) 114-123.
Authors: YokrajKatre, Radhika Sharma, Namita Goyal and **Ajaya K Singh**

Part-C

Books Published

Edited: 04

1. **Book Title**: Metal Organic Frameworks: Fundamentals to Advanced Introduction **(Elsevier)**
Editors:, Jai Singh, Ajaya Kumar Singh, Bhawana Jain, Dakeshwar Verma

2. **Book Title**: **Metal oxide-based thermoelectric materials (Elsevier)**

Editors: Jai Singh, Khalid Bin Masood,Ajaya Kumar Singh,Zhi-Gang Chen

3. Part of the Advances in Bionanotechnology Series Editor: Ravinder Singh
Book Title: Bionanotechnology for Advanced Applications (**Taylor & Francis**)

Editors: Ajaya Kumar Singh. Bhawana Jain

4.

Authored Books: 02

Book Chapters: 27

1. **Book:** "*Bottled and Packaged Water",* 1st Edition,
Volume 4: *The Science of Beverages Series*,
Publisher: Woodhead Publishing, Elsevier **(2019)**.
Chapter 2: **The World Around Bottled Water**,
Authors Name: Bhawana Jain, **Ajaya Kumar Singh**, Md. Abu Bin Hasan Susan

Editors: AlexandruGrumezescu Alina-Maria Holban, eBook ISBN: 9780128157046
Paperback ISBN: 9780128152720

2. **Book:** "*Sodium-Ion Batteries Materials and Applications",*
   Publisher: Materials Research Forum LLC
   Chapter: **Tin-Based Materials for Sodium-Ion Batteries 76(2020)135**
   Authors Name: Bhawana Jain, **Ajaya Kumar Singh**, Md. Abu Bin Hasan Susan

3. **Book**: "*Rechargeable Batteries: History, Progress, and Applications",*
   Publisher: John Wiley & Sons,
   Chapter 11: **Analytical Investigations in Rechargeable Batteries (2020)217**
   Authors Name: Bhawana Jain, Sunita Singh, Anupama Asthana, **Ajaya Kumar Singh**, Md. Abu Bin Hasan Susan

4. **Book**: "*Green Nanomaterials Sustainable Technologies and Applications",* 1st Ed.,
   Chapter 8: "**Plant Extract: Isolation, Purification, and Applications of Green Nanomaterials Stabilization",** Publisher: Apple Academic Press (June 2021)**,**
   Authors Name: *S. Sreevidya, KirtanaSankara Subramanian, Yokraj Katre, Anil Kumar, and* ***Ajaya Kumar Singh****,*
   Ed: Kaushik Pal **Hard ISBN:** 9781771889650.

5. **Book**: "*Green Nanomaterials Sustainable Technologies and Applications",* 1st Ed.,
   Chapter 9: "**Recent Advances of Green Nanomaterials for Agricultural Productivity"**, Publisher: Apple Academic Press (June 2021)**,**
   Authors Name: *Ayesha Hashmi, S. Sreevidya, Satish Kumar Sen,* ***Ajaya Kumar Singh*****, Ed:** Kaushik Pal**, Hard ISBN:** 9781771889650.

6. **Book:** "*Materials for solar Cell Technologies*" 1st Ed.,
   Publisher: (Materials Research Forum),
   Chapter 3: "**Solar Cells: As Cross-road Harvesters for Power Packed Energy"**,
   Authors Name: *Aditi Banjare,* ***Ajaya K. Singh****, Bhawana Jain, Sunita Sanwaria, Rama Shankar Singh, S. Sreevidya, KirtanaSankarasubramanian.* **Ed:**Dr.Inamuddin

7. **Book:** "*Quantum Dots: Properties and Applications"* 1st Ed.,
   Publisher: Materials Research Forum, USA **(2020)**
   Chapter 2: "**Fabrication techniques for quantum dots",**
   Authors Name: Jyoti Patel, Bhawana Jain, **A.K.Singh,**
   Ed: Inamuddin, Rajender Boddula and Abdullah M. Asiri

8. **Book:** "*Functional Nanomaterials for Spectroscopic Applications",*
   Publisher: C. Jenny Stanford Publishing Pte. Ltd. (2021)
   Chapter 4**: "Green Nanostructures Synthesis and Spectroscopic Characterizations",**
   Authors Name: Sreevidya S, Kirtana Sankara Subramanian, Yokraj Katre, Jai Singh, **Ajaya Kumar Singh,** Mariya Aleksandrova, and Rabah Khenata
   Ed: Kaushik Pal
   ISBN 978-981-0000-00-0 (Hardcover), 978-1-000-00000-0 (eBook)

9. **Book:** "*Nanomaterials in Bionanotechnology: Fundamentals and Applications",*
   Chapter 7**: "**Nanomaterials for Environmental hazard: analysis, monitoring, and removal Sreevidya S., Kirtana Sankara Subramanian, Yokraj Katre, **A.K.Singh**.

Authors Name: Sreevidya S, Kirtana Sankara Subramanian, Yokraj Katre, **Ajaya Kumar Singh**

10. **Book:** "*Functionalized Nanomaterials for Catalytic Application: Trends & Developments",*
Chapter 3**: "**Functionalized nanomaterials (FNMs) based catalytic materials for water resources"
Authors Name: Sreevidya S., Kirtana Sankara Subramanian, Yokraj Katre, **Ajaya Kumar Singh**.

11. **Book:** "*Biosurfactants for the Bioremediation of Polluted Environments",*
Chapter 24: Application of Biosurfactant during the process of biostimulation for effective bioremediation of contaminated environment
Authors Name: Shippi Dewangan, **Ajaya Kumar Singh**

12. **Book:** "*Biosurfactants for the Bioremediation of Polluted Environments",*
Chapter 2: Functionalized Nanomaterials (FNMS) Based Catalytic Materials For Energy Industry
Amarpreet K. Bhatia, Shippi Dewangan, **Ajaya Kumar Singh**, Sónia. A.C. Carabineiro

13. **Book**: *Magnetic Nanoparticles and Polymer Nanocomposites(Elsevier)* ***2024***
DOI: 10.1016/B978-0-323-85748-2.00007-4
Name of Editors: Imran Khan, Anish Khan, Mohammad Mujahid Ali Khan
Woodhead Publishing Series in Composites Science and Engineering
ISBN: 978-0-323-85748-2
Chapter 2: Magnetic polymeric and silver nanocomposite: properties, synthesis, and antimicrobial evaluation study (17-36)
Authors Name: Shippi Dewangan, Amarpreet K. Bhatia, **Ajaya K. Singh**

14. **Book**: *Magnetic Nanoparticles and Polymer Nanocomposites(Elsevier)*

Chapter-11 Magnetic Polymeric Nanocomposites for Medical Applications

Authors Name: Vijayasri.K , Alka Tiwari , **Ajaya Kumar Singh**

15. **Book:** *Magnetic Nanoparticles and Polymer Nanocomposites*

Chapter 7 : Magnetic semiconductors and polymer nanocomposites for degradation of organic pollutants and water treatment (135-156)
Authors Name: Amarpreet K. Bhatia, Shippi Dewangan, Ajaya K. Singh, Md. A.B H. Susan

16. **Book Title-** Magnetic Nanoparticles and Polymer Nanocomposites

Chapter-16 :Graphene Oxide-polymer nanocomposites: Synthesis mechanism and developed magnetism, properties and applications in environment
Name of Authors: Ayesha Hashmi, Anupama Asthana, Sunitha B Mathew, Sunita Sanwaria, Ajaya K. Singh

17. **Book Title:** Nanobiosensors for Environmental Monitoring, Fundamental and Applications(Springer) **2022**
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Editors: Ravindra Pratap Singh · Kingsley Eghonghon Ukhurebor · Jay Singh · Charles

Oluwaseun Adetunji · Kshitij RB Singh

Chapter-4: Utilization of Nanobiosensors for Wastewater Management

Name of Authors: Shippi Dewangan, Amarpreet K. Bhatia**, Ajaya Kumar Singh**, and Md. Abu Bin Hasan Susan

18. Book Title: Nanocomposites
ISBN 9789814968171
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Chapter-2: Nanocomposites: Types and Various Methods of Synthesis

Name of Authors: Amarpreet K. Bhatia, Shippi Dewangan, Ajaya Kumar Singh

19. **Book Title:** Nanocomposites
ISBN 9789814968171
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Editor :N.B.Singh

Chapter-3: Characterization of Nanocomposites

Name of Authors: Shippi Dewangan, Amarpreet K. Bhatia, Ajaya Kumar Singh

20. Book Title: : Biogenic Sustainable Nanotechnology **(Elsevier) 2022**

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Editor : Raghvendra Pratap Singh, Alok Rai, Ahmed Abdala, Ratiram Chaudhary

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eBook ISBN: 9780323885362

Chapter-11: Nanocomposites for dye remediation from aqueous solutions

Name of Authors: N.B.Singh.N.P.Singh, Ajaya Kumar Singh, Lellouche Jean-Paul

21. Book Title: Fundamentals of Biosensors in Healthcare **(2025) Elsevier**

Doi:10.1016/B978-0-443-21658-9.00019-X
Editor: Md Saquib Hasnain, Amit Kumar Nayak, Tejraj M. Aminabhavi
Paper back ISBN: 9780443216589, eBook ISBN: 9780443216596
Chapter-4: Chemical Biosensors page 87-108
Name of Authors: Meena Chakraborty, Alpa Shrivastava, Sunita Sanwaria, **Ajaya Kumar Singh**

22. Book Title: Green Synthesis and Emerging Applications of Frontier Nanomaterials (**2024)**
Materials Research Forum LLC Materials Research Foundations
169 (2024) 249-274
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Name of Editor: Eds. Martin F. Desimone, Rajshree B. Jotania, Ratiram G. Chaudhary
Book Chapter-10: Quantum dots: Green synthesis, characterizations and applications
Name of Authors: Yogita Sahu , Sunita Sanwaria , R.M. Patel, Md. Abu Bin Hasan Susan , **Ajaya K.Singh**

23. **Chapter-11:** Ti-based nanomaterials and their potent applications

Name of Authors: Alpa Shrivastava, Meena Chakraborty, Sunita Sanwaria**, Ajaya Kumar Singh**

24. **Book Title:** Advanced Materials for Pharmaceutical Wastewater Treatment
https://doi.org/10.1201/9781003340164
Name of Editor: P.V. Nidheesh, Aydin Hassani
Publisher: CRC Taylor & Francis
eBook ISBN9781003340164

Chapter- 4: Magnetic Adsorbents for the Removal of Pharmaceutical Contaminants

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25. **Book Title:** Metal Organic Frameworks: Fundamentals to Advanced Introduction (Elsevier) **2024**
Paperback ISBN: 9780443152597 eBook ISBN: 9780443152580
Editors: Jai Singh, Ajaya Kumar Singh, Bhawana Jain, Dakeshwar Verma

Chapter-5: Synthesis and shaping of metal organic frameworks
Name of Authors: Barsa Sahu, Ajaya Kumar Singh, Jyoti Patel and Sunita Sanwaria
77-104

26. **Book Title:** Advances in Nanomaterials for Detection, Control, and Removal of Environmental Pollutants (Springer)
Editors: Amit Kumar Singh,Ajaya Kumar Singh, Md.Abu Bin Hasan Susan
Chapter-11: Metal Organic Frameworks (MOFs) for Photocatalytic Applications
June 2025
DOI: 10.1007/978-3-031-87409-3_11
Name of Authors: Sakshi Singh, Aftab Aslam Parwaz Khan, Mohd. Zeeshan, Khalid Ahmed Alzahrani, Ajaya Kumar Singh

27. **Book Title:** Advances in Nanomaterials for Detection, Control, and Removal of Environmental Pollutants

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Chapter-17: Future Directions and Challenges in Nanomaterials Based Detection, Control and Removal of Environmental Pollutants
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Name of Authors :S. Sreevidya, Sushma Yadav, Sunita Sanwaria, Yokraj Katre,Anupama Asthana, **Ajaya Kumar Singh**

Post-Doctoral Fellow: 01 Dr. Bhawana Jain
Women Scientist: 01 Dr.Jyoti Patel

Ph.D. Awarded:

S.NO.	Topic	Name of candidate	Year
1.	Kinetics and mechanistic studies of transition metal catalysed oxidation of paracetamol	Dr. Reema Negi	2010
2.	Studies on kinetics of transition metal catalysed oxidation of some biologically important amino acids by N-bromophthalimide	Dr. Bhawana Jain	2011
3.	Kinetics studied of some ester and amides in presence of micelles	Dr. Rashmi Mandavi (Co-guide)	2011
4.	Kinetics studies of uncatalyzed and catalysed redox reactions of some fluoroquinolone drugs	Dr. Alpa Srivasatava	2012
5.	Mechanistic study of transition metal catalysed oxidation of reducing sugars by N-Bromophthalimide	Dr. Neerja Sachdev	2013
6.	Studies on some chemically deposited nanocrystalline film doped with transition and rare earth metallic ions	Dr. Gautam Sheel Thool	2015
7.	Synthesis and structural investigation of nanocrystalline solid thin films	Dr. Swati Mehra	2016
8.	Structural and optical studies on some chemically deposited nanocrystalline solid thin films	Dr. Soumya R. Deo	2016
9.	Characterisation and evaluation of some environmental toxicants using chromogenic reagents	Dr. Garima P. Pandey	2016
10.	Investigations of nanocrystalline and bulk properties of some chemically deposited lanthanide doped (Cd-ZnS) films	Dr. Ritu Srivasatava (CO-Guide)	2016
11.	Kinetics and mechanistic study of catalysed and uncatalyzed oxidation of antibiotics in homogenous system	Dr. V.S. Geete	2016
12.	Novel and facile route for the oxidation of metronidazole in the presence of transition metal	Dr. Savita Pataila	2017

	ions as homogenous catalyst: a kinetic and mechanistic study		
13.	Synthesis and characterization of Zinc Oxide nanowire for heterojunction LED	Dr. Kanchana Shahi (CO-Guide)	2018
14.	Oxidative degradation of antibiotics/analgesic drugs by colloidal manganese dioxide in absence and presence of micellar system	Dr. Neelam Sen (CO-Guide)	2018
15.	Mechanistic aspects for the uncatalysed and transition metal catalysed oxidative degradation of triarylmethane dyes: a spectrophotometric kinetic approach	Dr. Shakila Bano	2018
16.	Synthesis, characterization and application of transition metal doped semiconductor quantum dots	Dr. Jyoti Patel	2021
17.	Synthesis of graphene and reduced graphene oxide by environmentally friendly route: characterization and application	Dr. Ayesha Hashmi	2021
18	Development of otential carbon dots composite for wastewater treatment	Dr.Yogita	2024
19	Nanobiopesticides: synthesis and studies as nanoprotectors	S.Sreevidya (Co-Guide)	2024
20	Structural and optical studies of chalcogenide solid thin films by chemical bath deposition method	N.Jaisree (Co-Guide)	2024

Ph.D. Ongoing:

21	Synthesis and processing of quaternary metal chalcogenide nanocrystalline films by wet chemical technique	Mitisha Baid	2014
22	Synthesis and characterization of hybrid halide perovskite materials for optoelectronic devices	Aditi Banjare	2018
23	Synthesis and characterization of Zinc Oxide based nanocomposites and its application	Prachi Verma	2018
24	Preparation& Characterization of Microcellular Silicone Elastomer Nanocomposite Filler	Dileep Kumar Sahu	2019

25	Synthesis and characterization of metal organic framework and its application	Barsa Sahu NET-JRF	2021
26	Treatment of pharmaceutical effluents by hybrid process of advanced oxidation	Swati Banchhor (Co-Guide)	2021
27	Synthesis and characterization of graphene quantum dots for waste water treatment	Shraddha Agrawal (Co-Guide)	2021
28	Synthesis of ZIF-8 polymer composite for wastewater Treatment	Pragati Agrawal	2024