# **Dr. JAMAL AKHTER SIDDIQUE** (Assistant Professor)

Department of Chemistry, Gandhi Faiz-E-Aam College, (M.J.P, Rohelkhand University) Shahjahanpur, India-242001

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## TEACHING AND RESEARCH INTERESTS

## **Teaching:**

Effective and impactful teacher with a commitment to special education, Extensive involvement in curating new curriculums for college/university-level courses, along with a passion for helping students grow and develop each semester, my passion for helping students develop and learn.

#### Research:

Characterization and synthesis of Polymer based Nano-biomaterials. Thermodynamics studies, Volumetric properties of Binary systems, Analytical approach of Chemistry, Handling the sophisticated and Characterization Instruments to analyze different aspects of Material Sciences, Ceramic materials, Adsorption studies of metals and dye from industrial effluents, Chemistry of Building Materials, Biodegradable material, bio-renewable energy. Kinetics and transport properties of molecules of theoretical interest like drugs, amino acids, metal ions, peptides and protein complexes, Biophysical approaches of Chemistry.

# PROFESSIONAL EXPERIENCES (RESEARCH/TEACHING)

- **June 2023-Till Date: "Assistant Professor"** at Department of Chemistry, Gandhi Faiz-E-Aam College, (M.J.P, Rohelkhand University) Shahjahanpur, India-242001
- MARIE SKŁODOWSKA-CURIE (Marie Curie) fellow (Selected for Category-B), SASPRO-2, (Third Call June-2022) Slovak Academy of Sciences, Bratislava, Slovakia
- Oct 2018-May 2023: "Associate Professor" at Department of Chemistry, School of Basic and Applied Sciences, Lingaya's University, (Approved under Section 3 of UGC Act, 1956), Faridabad, Haryana, India-121002.
- Aug. 2017 Sep. 2018: "Assistant Professor" at Department of Chemistry, School of Basic and Applied Sciences, Lingaya's University, (Approved under Section 3 of UGC Act, 1956), Faridabad, Haryana, India-121002.
- July 2015- Feb-2017: Researcher (Geo-physical Environmental Modeling), Department of Environmental Chemistry, Faculty of Environmental Science, Czech University of Life Sciences in Prague (CZU), Praha 6, Czech Republic.
  - Major simulation software used; MINTEQ, Protofit, PHREEQC, FITEQL
- April 2014 June 2015: Post-doctoral Research Fellow, Department of Materials Engineering and Chemistry, Faculty of Civil Engineering, Czech Technical University in Prague (CVUT), Praha 6, Czech Republic.

# (Additional)

- March 2015- June 2015: Visiting Researcher, (Mentor Prof. Neil Hyatt), Division of Material Chemistry, Department of Materials Science and Engineering, Sir Robert Hadfield Building, University of Sheffield, Mappin Street, Sheffield, S1 3JD, United Kingdom (U.K).
- April 2013- Mar. 2014: Post-doctoral Research Fellow, Division of Chemistry, Faculty of Biosciences and Medical Engineering, University Technology Malayasia (UTM), Johor Bahru, Johor, Malaysia.

- July 2011- Dec.2012: Post-doctoral Research Fellow, Applied Macromolecular Chemistry (AMC) Lab, Polymer chemistry division, Department of Nanobio Materials and Electronics, (WCU), School of Material Sciences and Engineering, (MSE), Gwangju Institute of Science and Technology (GIST), Gwangju, Republic of Korea.
- **Sept. 2010- May 2011: Assitant Professor** at Aligarh College of Engineering and Technology, India.
- Nov. 2005- Aug. 2007: Quality Assurance/Quality Control Officer in Morepen Laboratories Ltd. Parwanoo, Solan (H.P) India. (AN ISO 9001:2000, Certified, USFD, WHO GMP Approved Pharmaceutical Company).

# ROLE IN TEACHING AND RESEARCH

# **TEACHING EXPERIENCES**

- July-2017- Present: Major Topics; General Chemistry, Polymer Chemistry, Inorganic, Physical, Environmental Chemistry, at undergraduate level, Medicinal Chemistry, Physical Labs, at Master Level, Project for B.Sc, MSc Final year students, General Chemistry teaching for B.Tech and B.Pharma Students at Department of Chemistry, School of Basic Sciences and Humanity, Lingaya's University, (Approved under Section 3 of UGC Act, 1956), Faridabad, Haryana, India-121002.
- July 2015- Oct 2017: Major Topics; General Chemistry, Applied and technical aspects of experimental chemistry, Environmental Chemistry, at undergraduate level. Department of Environmental Geoscience, Faculty of Environmental Science, Czech University of Life Sciences in Prague (CZU), Praha 6, Czech Republic.
- April 2014 June 2015: Major Topics; Aspects of Materials Chemistry, Applied and analytical approaches of laboratory systems, Elementary Chemistry, at graduate level. Department of Materials Engineering and Chemistry, Faculty of Civil Engineering, Czech Technical University in Prague (CVUT), Praha 6, Czech Republic.
- April 2013 Mar 2014: Major Topics; Biomedical Engineering with Chemical approaches, Biodegradable Materials, at undergraduate and graduate level. Faculty of Biosciences and Medical Engineering, University Technology Malayasia (UTM), Johor Bahru, Johor, Malaysia.
- Sept.2012-Dec.2012: Teaching Assistant for Class NA678: Carbon Nanomaterials, Department of Nanobio and Electronic (DNE), Gwangju Institute of Science and Technology (GIST), Gwangju, Republic of Korea.
- Sept.2011-Dec.2011: Teaching Assistant for Class NA601: Advanced Polymer Nanomaterials, Department of Nanobio and Electronic (DNE), Gwangju Institute of Science and Technology (GIST), Gwangju, Republic of Korea.
- **Sept. 2010-May 2011:** worked as Assitant Professor at Aligarh College of Engineering and Technology, India.

# **KEY DUTIES AND RESPONSIBILITIES PERFORMED**

- Successfully organized conference as "Organizing Secretary" on Recent Advances in Materials Science and Engineering held on 28-29 March, 2019 at Department of Chemistry, School of Basic and Applied Sciences, Lingaya's University, Faridabad, India.
- Successfully organized conference as "Organizing member and advisory board member" on Advances in material Sciences &IOT of smart Environmental Monitoring and sustainability held on 20-21 March, 2018 at Department of Chemistry, School of Basic Sciences and Humanities, Lingaya's University, Faridabad, India.
- Manage own academic research and administrative activities. This involves small scale project management, to co-ordinate multiple aspects of work effectively to meet deadlines.
- Contribute intellectually to the development of hypotheses and new ideas for research, drawing on systematic analysis of the relevant literature and own expertise.

- Contribute actively to the design and implementation of new scientific equipment and procedures as required for the project.
- Contribute to the preparation of scientific reports and journal articles and acting as representative of the group to present papers and posters at conferences in the all-around the Europe.
- Contribute to the day-to-day running of the laboratory, and provide day-to-day Supervision and advice for a small number of graduate and undergraduate research students in the laboratory.
- Taught graduates and undergraduates and laboratory supervision, this was includes small-group teaching, and tutoring of undergraduates.

## RESEARCH SUPEVISION

# Ph.D.-Supervision: (students persuing)

- Guide of Vishal Singh, with thesis entitle, *Physicochemical Studies with thermodynamic approach of synthesise Polymer Nanomaterial*, persuing since July-2017.
- Co-Guide of Deepali, with thesis entitle, Comperative Study of Nanomaterial in Term of Synthesis and Thermodynamics Behaviour, persuing since session July-2017.
- Co-Guide of Riyazuddin with thesis entitle, *Thermal Studies of Intumescent Flame Retardant Polymers Coating and Impact of Inorganic Compound*, persuing since July-2018.
- Co-Guide of Samrin Bano with thesis entitle, *Enhancement The Performance of Intumescent Coating by Incorporating Inorganic Materials as Flame Retardant Filler*, persuing since July-2019.

# M.Sc Project Supervision:

- Project Supervision of Mohit Sharma, entitle, Viscometric studies of Biochemical systems.
- Project Supervision of Abid Khan, entitle, *Thermodynamic properities and Charactrisation of Polymer Nano Materials and its synthesis*.
- Project supervision of Roohie Bajaj, entitle, *Ultrasonic behaviour of Amino acids with metal salts*.
  - **BSc-Project Supervision:** (Total students -7)
- Measure the Turbidity, BOD, COD and calculate the hardness of Water

### ACADEMIC DEGREES FROM UNIVERSITY

- Ph.D. (Chemistry), Aligarh Muslim University, Aligarh, India (2011)
  Thesis: "Physico-chemical Studies of Biological/Biochemical Systems."
- M.Sc. Chemistry- University of Allahabad, Allahabad, India (2003-2005)
- B.Sc. (Chemistry/Botany), University of Allahabad, Allahabad, India (1999-2002)

## TECHNICAL SKILLS AND EXPERIENCE IN RESEARCH LABORATORY (Major)

- **XRD-**Working and operative skill with the instrument experience learned at Sheffield University, U.K.
- **RAMAN Spectroscopy**-Working and operative skill with the instrument experience learned at Gwangju Institute of Science and Technology, Republic of Korea.
- **UV-visible spectroscopy-**Working and operative skill with the instrument experience learned at Gwangju Institute of Science and Technology, Republic of Korea.
- **Bio-AFM**-Working and operative skill with the instrument experience learned at Gwangju Institute of Science and Technology, Republic of Korea.

- **FTIR**-Working and operative skill with the instrument experience learned at Gwangju Institute of Science and Technology, Republic of Korea.
- **SEM**-Working and operative skill with the instrument experience learned at Sheffield University, U.K.
- **Digital Density meter (Aton-Paar)**-Working and operative skill with the instrument experience during my Ph.D research learned at Aligarh Muslim Univertity, India.

## **PUBLICATIONS**

- 1. A new aspect of lipopeptide incorporated nanoparticles synthesis and recent advancement in biomedical and environmental sciences: a review
  - **Jamal Akhter Siddique,** R K Sharma, G Dey, P Banerjee, J.P. Maity, C M Lu, S-C Wang, N Chatterjee, K Das and C Y Chen, **J. Mater. Chem. B,** 2022, (**IF-7.571**) Accepted Manuscript; <a href="https://doi.org/10.1039/D2TB01564A">https://doi.org/10.1039/D2TB01564A</a>
- 2. Role of Copper Oxide on Epoxy Coatings with New Intumescent Polymer Based Fire Retardant. **Jamal Akhter Siddique**,\* R. Riyaz, S. Bano, F. M. Husain, R.A. Khan, A. Alsalme; **Molecules 2020**, 25(24), 5978; (**IF-4.927**) ISSN: 1420-3049. <a href="https://doi.org/10.3390/molecules25245978">https://doi.org/10.3390/molecules25245978</a>
- 3. Influence of Antimony Oxide on Epoxy Based Intumescent Flame Retardation Coating System. **Jamal Akhter Siddique**,\* R. Uddin, S. Bano, F. M. Husain, R.A. Khan, A. Alsalme; **Polymers 2020**, 12(11), 2721; (**IF- 4.967**) ISSN: 2073-4360 <a href="https://doi.org/10.3390/polym12112721">https://doi.org/10.3390/polym12112721</a>
- 4. Nanostructure Materials as a Promising Route for Efficient Renewable Energy Production, Storage, and Conversion
  - **Jamal A. Siddique,** N. F. Attia, S. Sami, Sally, E. A. Elashery. Journal of Nanomaterials, Volume-2020|Article-ID-7261625, 1, page (Editorial) Jan., 31, **2020**, (**IF- 2.233**) <a href="https://doi.org/10.1155/2020/7261625">https://doi.org/10.1155/2020/7261625</a>.
- 5. Exfoliated Graphene Sheets: Polymer Nanoparticles as a Tool and Their Anti-Proliferative Activity.
  - Jamal Akhter Siddique, N.F. Attia, N. Tyagi, Kurt E. Geckeler\* *Chemistry Select* Vol- 4, Issue 45 Dec. 6, **2019**, 13204-13209. (**IF: 2.307**) Online ISSN:2365-6549 © WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim. <a href="https://doi.org/10.1002/slct.201903090">https://doi.org/10.1002/slct.201903090</a>
- 6. The role of soil components in synthetic mixtures during the adsorption and speciation changes of Cr (VI): Conjunction of the modeling approach with spectroscopic and isotopic investigations.
  V. Veselská, Jamal Akhter Siddique, H. Šillerová, J. Göttlicher, Z. Michálková, S.Číhalová, V. Chrastný, R. Steininger, S.Mangold, M. Komárek. *Environment International*, Volume 127, June 2019, P 848-857, (IF: 7.297) ISSN: 0160-4120. https://doi.org/10.1016/j.envint.2019.03.066
- 7. Resonance Light-Scattering Enhancement Effect of the Y(III)-PUFX-Eosin System and its Fluorescence Study.
  - Bano, S.; Mohd, A.; Khan, A. A. P.; Asiri, A. M.; **Siddiqui, Jamal Akhter;** Hussain, S. A., Pharm Chem J 52, 182–190 (2018). (**IF- 0.679**) Print ISSN 0091-150X; Online ISSN1573-9031 <a href="https://doi.org/10.1007/s11094-018-1787-4">https://doi.org/10.1007/s11094-018-1787-4</a>
- 8. Chromate adsorption on selected soil minerals: Surface complexation modeling coupled with spectroscopic investigation.
  - V. Veselská, **Jamal A. Siddique**, R. Fajgar, S. Číhalová, R. M. Bolanz, J. Göttlicher, R. Steininger, M. Komárek. *Journal of Hazardous Materials*, Vol- 318, 15 November **2016**, 433–442. (**IF- 9.08**) ISSN: 0304-3894. https://doi.org/10.1016/j.jhazmat.2016.07.002
- 9. Viscometric Study of Lysozyme Solution with Glucose, Maltose and Urea Solutions. **Jamal A Siddique**, S. Sharma and S. Naqvi\*, *Arabian Journal of Chemistry*, Vol-9(2), **Nov-2016**, S1040–S1043. (**IF= 3.725**) ISSN: 1878-5352. <a href="https://doi.org/10.1016/j.arabjc.2011.11.006">https://doi.org/10.1016/j.arabjc.2011.11.006</a>
- 10. Engineering properties of composite materials containing waste ceramic dust from advanced hollow brick production as a partial replacement of Portland cement.

- T. Kulovaná, E. Vejmelková, J. Pokorný, **Jamal Akhter Siddique**, M. Keppert, P. Rovnaníková, M.Ondráček, Z. Keršner, R.Černý, *Journal of Building Physics*, **2016**, 40 (1),17-34., (**IF- 1.027**), ISSN: 1744-2591 (print); 1744-2583 (web) <a href="https://doi.org/10.1177/1744259115597228">https://doi.org/10.1177/1744259115597228</a>
- 11. Polymer Nanoparticles as a Tool for the Exfoliation of Graphene Sheets

  Jamal Akhter Siddique, N. F. Attia, K. E. Geckeler\* *Materials Letters*, 158, 2015, 186–189. (IF = 3.423) ISSN: 0167-577X, https://doi.org/10.1016/j.matlet.2015.05.134
- 12. New generation Amberlite XAD resin to removal of metal ions: A Review A.Ahmad, **Jamal Akhter Siddique**, R. Kumar, M. A. Laskar, A. Khatoon, and S.H. Mohd-Setapar\*, *Journal of Environmental Sciences*, 31, 1 May **2015**, Pages 104–123. (**IF =2.002**) ISSN: 1001-0742. <a href="https://doi.org/10.1016/j.jes.2014.12.008">https://doi.org/10.1016/j.jes.2014.12.008</a>
- Treated Coconut Coir Pith as Component of Cementitious Materials.
   Konáková, E. Vejmelková, M.Cáchová, Jamal A. Siddique, K. Polozhiy, P. Reiterman, M. Keppert and R. Cerný, Advances in Materials Science and Engineering 01/2015; 2015(4):1-8. (IF = 1.010) ISSN: 1687-8434 (Print) <a href="https://doi.org/10.1155/2015/264746">https://doi.org/10.1155/2015/264746</a>
- 14. Wet-treated MSWI Fly Ash used as Supplementary Cementitious Material.

  Jamal Akhter Siddique, M.Keppert, Z. Pavlík, R. Černý, *Advances in Materials Science and Engineering* 01/2015; 2015(4):1-8. (IF =1.010) ISSN: 1687-8434 (Print) ISSN: 1687-8442 (Online). <a href="https://doi.org/10.1155/2015/842807">https://doi.org/10.1155/2015/842807</a>
- 15. Apparent Molal Volume and Compressibility of Glucose, Maltose at different Temperature in Lysozyme Solution.
  - Jamal Akhter Siddique\*, S.Sharma, S. Naqvi\*, A. Ahmad, A. Khatoon, S.H.M. Setapar, *Arabian Journal of Science and Engineering*, 10/2015; 40(10): 3001-3005. (IF= 2.334) <a href="https://doi.org/10.1007/s13369-015-1818-3">https://doi.org/10.1007/s13369-015-1818-3</a> ISSN: 2193-567X (print version) ISSN: 2191-4281 (electronic version), Journal no. 13369
- 16. Non-additive Thermally Treated Municipal Solid Waste Incineration (MSWI) Fly Ash and its Utilization as Supplementary Cementitious Material.
  - Jamal Akhter Siddique\*, M. Keppert, K. Polozhiy, R. Černý, (Conference proceeding) Materials Characterisation VII, vol-90, p-171-181, 7th International Conference on Computational Methods and Experiments in Materials Characterization, 22-24 April 2015, 10.2495/MC150151 Transaction WIT Transactions on Engineering Sciences, Volume-90, Pages 11, Page Range;171-181, Published, 2015, Valencia, Spain, organized by Wessex Institute, UK. (Publisher: WIT Press, ISBN: 1845649486, EAN: 9781845649487, WIT Press eLibrary, DOI-10.2495/MC150151).
- Influence of Plasticizer on Properties of Blended Cement Concrete.
   K. Polozhiy, Jamal Akhter Siddique, P. Reiterman, Materials Science Forum Vol. 824 (2015) pp 61-64. (2015) Trans Tech Publications, Switzerland (IF-0.44) ISSN: 0255-5476, 1662-9760. https://doi.org/10.4028/www.scientific.net/MSF.824.61
- 18. Thermodynamic Interaction of Quinolone (levofloxacine) Drug in Aqueous Amino Acid Solutions at around Body Temperatures.
  - **Jamal Akhter Siddique\***, S.Naqvi, A.Mohd., and S. Sharma, *Journal of Basic and App. Eng. Research*, **2015**, 2(12), 1016-1021. (**IF- 0.1**). ISSN: 2350-0077; Online 2350-0255.
- Mechanical and Water Transport Properties of HSC with Different SCMs.
   K. Jaroslava\*, K. Dana V. Eva, R. Pavel and SIDDIQUE Jamal Akhter Materials Science Forum Vol. 824 (2015) pp 105-110 (2015) Trans Tech Publications, Switzerland (IF- 0.44) ISSN: 0255-5476, 1662-9760. https://doi.org/10.4028/www.scientific.net/MSF.824.105
- Low Cost Cement Floor Screed.
   K. Polozhiy, Jamal Akhter Siddique, P. Reiterman, Materials Science Forum Vol. 824 (2015) pp 77-80, Trans Tech Publications, Switzerland. (IF- 0.44) ISSN: 0255-5476, online 1662-9760. https://doi.org/10.4028/www.scientific.net/MSF.824.77

- Microwave synthesis, characterization, bioactivity and in vitro biocompatibility of Zeolite-Hydroxyapatite (Zeo-HA) composite for bone tissue engineering applications.
   N. Iqbal, M.R.A. Kadir\*, N. H. B. Mahmood, Jamal Akhter Siddique, M. N. Sarian, M. F. M.Yusoff. *Ceramics International, Elsevier*, 2014, 40(10), 16091-16097. (IF = 2.758), ISSN: 0272-8842, https://doi.org/10.1016/j.ceramint.2014.07.038
- 22. Thermodynamic Behavior of Glucose, Maltose, and Urea on Stabilization Lysozyme Solution. **Jamal Akhter Siddique\***, S. Sharma, U. Rashid, K.E. Geckeler and S. Naqvi\*, *Arabian Journal of Science and Engineering*, **2014**, 39:5445–5449. (**IF= 2.33**), ISSN: 2193-567X (print version) ISSN: 2191-4281 (electronic version), <a href="https://doi.org/10.1007/s13369-014-1114-7">https://doi.org/10.1007/s13369-014-1114-7</a>
- 23. Viscosity behaviour of α-amino acids in different acetate salts solution at different temperatures. **Jamal Akhter Siddique** and S. Naqvi\*, *International Journal Thermophysics*, **2012**, 33, 47-57. (**IF =0.963**), ISSN: 0195-928X (Print) 1572-9567 (Online) <a href="https://doi.org/10.1007/s10765-011-1111-y">https://doi.org/10.1007/s10765-011-1111-y</a>
- 24. Ultrasonic Study of basic α-amino acids in various salt solutions at different temperatures. **Jamal Akhter Siddique** and S. Naqvi\*, *Chinese Journal of Chemistry* **2011**, 29, 669-678. (**IF**= **1.578**), Online ISSN: 1614-7065. <a href="https://doi.org/10.1002/cjoc.201190139">https://doi.org/10.1002/cjoc.201190139</a>
- 25. Volumetric Behavior on Interactions of α-Amino Acids with Sodium Acetate, Potassium Acetate, and Calcium Acetate in Aqueous Solutions.
  Jamal Akhter Siddique and S. Naqvi\*, Journal of Chemical and Engineering Data, 2010, 55 (8), 2930–2934. (IF =2.037), ISSN: 0021-9568 (print); 1520-5134 (web) <a href="https://doi.org/10.1021/je100190e">https://doi.org/10.1021/je100190e</a>

# **BOOK CHAPTERS**

- 1. Jamal A. Siddique, Chapter 21 Nanofiltration membrane use for separation of heavy metals from wastewater, 2023, Pages 523-549, <a href="https://doi.org/10.1016/B978-0-12-822880-7.00010-8">https://doi.org/10.1016/B978-0-12-822880-7.00010-8</a>. Editor(s): A.Ahmad, R. Kumar, M. Jawaid, "Emerging Techniques for Treatment of Toxic Metals from Wastewater", Elsevier, ISBN 9780128228807, <a href="https://www.sciencedirect.com/science/article/pii/B9780128228807000108">https://www.sciencedirect.com/science/article/pii/B9780128228807000108</a>
- 2. Jamal Akhter Siddique, F. M. Husain, M. Singh; Chapter-4: Nano-emulsion: current trend in skin care products 2022, Pages 49-73, ISBN 9780128229675, <a href="https://doi.org/10.1016/B978-0-12-822967-5.00005-9">https://doi.org/10.1016/B978-0-12-822967-5.00005-9</a>. "Nanotechnology for the Preparation of Cosmetics using Plant-based Extracts" Published in Elsevier S&T Books, Elsevier Publication 2022, Pages 49-73, ISBN 9780128229675,
- 3. Jamal A Siddique, R. K. Sharma, C.-Yen Chen, J. P. Maity; Chapter:6 Recent changes in the synthesis of ionic liquids based on inorganic nanocomposites and their applications (2022) 155-184. Advanced Applications of Ionic Liquids 1st Edition November 1, 2022 Editors: Jamal A. Siddique, S. Ansari, A. Khan, A. Asiri. Paperback ISBN: 9780323999212 eBook ISBN: 9780323984003 Elsevier Publications.
  <a href="https://www.elsevier.com/books/advanced-applications-of-ionic-liquids/siddique/978-0-323-99921-2">https://www.elsevier.com/books/advanced-applications-of-ionic-liquids/siddique/978-0-323-99921-2</a>
- 4. Jamal A Siddique, A. Mohd, S.Bano, A. A. P. Khan; Chapter-3: Current trends and applications of ionic liquids in electrochemical devices. (2022) 63-88. Advanced Applications of Ionic Liquidsm1st Edition November 1, 2022 Editors: Jamal A. Siddique, S. Ansari, A. Khan, A. Asiri; Paperback ISBN: 9780323999212 eBook ISBN: 9780323984003 Elsevier Publications
  - https://www.elsevier.com/books/advanced-applications-of-ionic-liquids/siddique/978-0-323-99921-2
- 5. Jamal A Siddique, A. Mohd, Chapter-16: Coir fibre-based Nanocomposites; Synthesis and Application (2022), 273-294. Coir Fiber and its Composites: Processing, Properties and

- *Applications. 1st Edition August 26, 2022* Editors Mohammad Jawaid; Paperback ISBN: 9780443151866, eBook ISBN: 9780443151873 **Elsevier Publications** https://www.elsevier.com/books/coir-fiber-and-its-composites/jawaid/978-0-443-15186-6
- 6. Jamal Akhter Siddique, M. Yadav, A. A. P. Khan, A. Khan and A. M Asiri.Chapter-14: Bio fibres and biopolymers for biocomposites: In the eyes of spectroscopy (2021);197-211. 
  "Biobased Composites: Processing Characterization, Properties And Applications" Publisher: Wiley-VCH Verlag GmbH & Co. KGaA https://doi.org/10.1002/9781119641803.ch14
- 7. Jamal Akhter Siddique, Numan A. Chapter-12, Perspective Future Development of Nanomaterials. (2021) 319-343. *In: Mubarak N.M., Khalid M., Walvekar R., Numan A.* (eds) "Contemporary Nanomaterials in Material Engineering Applications". Engineering Materials. Springer, Cham. <a href="https://doi.org/10.1007/978-3-030-62761-4\_12">https://doi.org/10.1007/978-3-030-62761-4\_12</a>
- 8. Jamal Akhter Siddique, F. M. Hussain, R. A. Khan, A.A.P.Khan, M.O.Ansari, M.Oves Chapter-18: Bio-Based Aerogels & Their Environmental Application; An Overview (2021), 347-356, <a href="https://doi.org/10.1016/B978-0-12-820732-1.00018-7">https://doi.org/10.1016/B978-0-12-820732-1.00018-7</a> "Advances in Aerogel Composites for Environmental Remediation" ISBN: 9780128207321 Imprint: Elsevier, Published Date: 1st June2021. <a href="https://www.elsevier.com/books/advances-in-aerogel-composites-for-environmental-remediation/khan/978-0-12-820732-1">https://www.elsevier.com/books/advances-in-aerogel-composites-for-environmental-remediation/khan/978-0-12-820732-1</a>
- Jamal Akhter Siddique, M.S. Ansari, M.Yadav, Chapter-13: Carbon Aerogel Composite for Gas Sensing (2021) 49-73. <a href="https://doi.org/10.1016/B978-0-12-820732-1.00004-7">https://doi.org/10.1016/B978-0-12-820732-1.00004-7</a> "Advances in Aerogel Composites for Environmental Remediation" ISBN: 9780128207321 Imprint: Elsevier, Published Date: 1st June 2021. <a href="https://www.elsevier.com/books/advances-in-aerogel-composites-for-environmental-remediation/khan/978-0-12-820732-1">https://www.elsevier.com/books/advances-in-aerogel-composites-for-environmental-remediation/khan/978-0-12-820732-1</a>) (https://www.sciencedirect.com/science/article/pii/B9780128229675000059)
- 10. Jamal Akhter Siddique, A. Ahmad, A. Mohd, Chapter-7: Self-healing conductive materials (2017)163-180 <a href="https://doi.org/10.1002/9783527807918.ch7">https://doi.org/10.1002/9783527807918.ch7</a> "Electrically Conductive Polymer and Polymer Composites 'From Synthesis to Biomedical Applications" Wiley-VCH Verlag GmbH & Co., Germany. With Print ISBN: 978-3-52734-289-1 Online ISBN: 978-3-52780-791-8, <a href="https://onlinelibrary.wiley.com/doi/book/10.1002/9783527807918">https://onlinelibrary.wiley.com/doi/book/10.1002/9783527807918</a>
- 11. Jamal A. Siddique, A. Ahmad, N. F. Attia, Chapter-6: Chitosan and poly (itaconic acid) film for Novel Biosensor (2017) 137-161. <a href="https://doi.org/10.1002/9783527807918.ch8">https://doi.org/10.1002/9783527807918.ch8</a> "Electrically Conductive Polymer and Polymer Composites 'From Synthesis to Biomedical Applications" Wiley-VCH Verlag GmbH & Co., Germany. With Print ISBN: 978-3-52734-289-1 Online ISBN: 978-3-52780-791-8, <a href="https://onlinelibrary.wiley.com/doi/book/10.1002/9783527807918">https://onlinelibrary.wiley.com/doi/book/10.1002/9783527807918</a>
- 12. Jamal Akhter Siddique, A. Ahmad, R. K. Sharma, A. Mohd, CHAPTER-23: Polymers/Graphene Derivative-Based Nanocomposite As Electrode Materials For Supercapacitors (2023) (Edts; A. A. P. Khan, M. Nazim, A. Asiri,) Advances in Electronic Materials for Clean Energy Conversion and Storage Applications Elsevier (Accepted /In production)

# **BOOK EDITING AS LEAD EDITOR:**

- 1. Title: Advance applications of ionic Liquids; 1st Edition November 14, 2022
  Subtitle: Study of Ionic liquids and its advance application with graphene based materials
  Editors; Jamal A Siddique, S. P. Ansari, A. A. P. Khan, A. M Asiri
  Published-11/2022 ISBN: 9780323999212; eBook ISBN: 9780323984003 Elsevier Publication
  https://doi.org/10.1016/C2021-0-00578-2
- 2. Title: Ionic liquids: A Complete Solution for Nanomaterials and Green Chemistry
  Subtitle: Study of Ionic liquids and its application with Nanomaterials
  Current Status: Elsevier Publication (Under Production/ to be Publish in spring-2023)

Editor; Jamal A Siddique, A. Ahmad, M. Jawed

3. Title: Deep Eutectic Solvents: Futuristic Solvent in Science

Current Status: Proposal approved to **Elsevier Publication (working)** 

Editor; Jamal A Siddique, I. bahadur, M. Jawed

4. Title: Fuel Energy: Environmental and Health Prospects

Subtitle: Fuel Energy

Current Status: Proposal Submitted to Springer publications (Under review)

Editor; Jamal A Siddique, A. Ahmad, M. Jawed

5. Title: Role of Nanocomposites in Bacterial stress management and ROS Species

Current Status: Proposal submitted to Elsevier Publication (Under review)

Editor; Jamal A Siddique, F. Ahmad, M. Jawed

# Publications in progress

- Review; Impact of Graphene in Graphene-ILs Based Composite Materials and its Applications.
- Jamal Akhter Siddique (Under Progress).
- Equilibrium and kinetic studies of Malachite Green dye adsorption onto chemically treated Durian Peel.

Ahmad, Jamal Akhter Siddique\*, A. Khatoon, S. H. M. Setapar, S. Naqvi

- Chapter: Pure Graphene Oxide Doped Conducting Polymer Nanocomposite for Bio-interfacing
- N. F.Attia, **Jamal Siddique**, A. Ahmad, (UNDER PROGRESS)
- **Review-**A mini-Review: Graphene-Protein based hybrid materials.
- Jamal Akhter Siddique, K. E. Geckeler\*
- Effect of Electronic Properties of Conducting Nanocomposites on the Hydrogen Adsorption Properties
- N. F. Attia, **Jamal A. Siddique**, S. M. Lee, H. J. Kim, Kurt E. Geckeler\*
- Preparation and Characterization of Chelating resin for removal of Cd<sup>2+</sup> and Pb<sup>2+</sup> in environmental samples.
- Jamal Akhter Siddique, A. Ahmad, A. Khatoon, S. H. M. Setapar\*,
- Surface Characterization of Titanium Modified by Sandblasting and EPA Coating Use in Dentistry Implant.
- A. Mustafa, Jamal Akhter Siddique, C. lung, J. P. Matinlinna
- Mineralogy of Blast Furnace Slag (BFS)/Ordinary Portland Cement (OPC) composite for encapsulation of Nuclear Waste as a function of thermal treatment.
- **Jamal Akhter Siddique**, Neil C Hyatt, J. Vigor, M. Keppert, R.Cenry
- Removal of acid orange 7 from waste water effluents by chemically treated Dragon fruit peel as a Low cost adsorbent.
- Jamal Akhter Siddique\*, A. Ahmad, A. Khatoon, S. Naqvi

# CONFERENCES/WORKSHOP/POSTER PRESENTATION

- 1. **Recent Advances in Materials Science and Engineering** held on 28-29 March, **2019** at Department of Chemistry, School of Basic and Applied Sciences, Linagays University, Faridabad, India (**Paper presented**)
- 2. **2**<sup>nd</sup>International Conference on Chemistry, Industry and Environment ICCIE-2019 held on 18-19 Feb., **2019** at Department of Applied Chemistry, Zakir Hussain College of Engineering, Aligarh Muslim University, Aligarh, India. (**Paper presented**).

- 3. Advances in material Sciences &IOT of smart Environmental Monitoring and sustainability held on 20-21 March, 2018 at Department of Chemistry, School of Basic Sciences and Humanities, Linagays University, Faridabad, India (Paper presented)
- 4. **Emerging Trends in Chemical Sciences** held on 24-25 Feb., 2018 at Department of Chemistry, Faculty of Sciences Aligarh Muslim University, Aligarh, India-202002. (**Paper presented**)
- 5. **BASE-LiNE Earth H2020 Marie Curie**, held at Faculty of Environmental Sciences, CULS Prague from Sept. 26 to Oct. 1, **2016**.
- 6. **Waste Management; What you don't know about it?** Special Lecture given by distinguishes Prof. Jurate Kumpiene. One Day Workshop and special seminar on 22<sup>nd</sup> Sep. **2016**.
- 7. **18<sup>th</sup> International conference on Heavy Metals in the Environment, ICHMET-2016,** Brussel, Belgium. (Paper presentation)
  - Modeling Of Cr(Vi) Adsorption on Mixtures of Selected Soil Minerals, Veronika Veselská, **J.A.** Siddique, E. Pehová, S. Číhalová& M. Komárek.
- 8. **International Workshop on Environmental Sciences and Geochemistry organized and Funded by ISOFIN'** Norway-Czech collaborated held at Department of Environmental Geosciences, Faculty of Environmental Science, Czech University of Life Sciences Prague, Prague, Czech Republic on 6-7 June, **2016**.
- 9. **Functional Nanomaterials Symposium (Funmat 2015)** Symposium held on 30<sup>th</sup> of July, **2015**, Charles University in Prague, Department of Organic Chemistry, Prague, CZ.
- 10. 7<sup>th</sup> International Conference on Computational Methods and Experiments in Materials Characterization, 22-24 April 2015, Valencia, Spain, organized by Wessex Institute, UK. (Paper Presented)
  - Non-additive Thermally Treated Municipal Solid Waste Incineration (MSWI) Fly Ash and its Utilization as Supplementary Cementitious Material
  - Jamal Akhter Siddique, Martin Keppert, Kirill Polozhiy, Robert Černý,
- 11. International Workshop on MODELING IN ENGINEERING PART 1-Advanced Modelling and Data Analysis in Biomedical Engineering and PART 2-Simulation and Modelling in Engineering, held at UCEEB, Třinecká, Buštěhrad, November 28, 2014, (Paper Presented).
  - Treatment of MSWI Fly-Ash by Different Methods and Techniques used as Supplementary Cementitious Material (SCM) in Concrete
  - Jamal A. Siddique, Robert Černý
- 12. **Ultra-High Performance Liquid Chromatography Programme**, One Day workshop Certificate Course held on 31, Oct., **2013** at Department of Chemistry, Faculty of Science, University Technology Malaysia
- 13. **Annual Korean Polymer Society Spring Meeting,** held on 11-12, **2013**, at Daejon, South Korea, (Paper Presented)
  - Effect of Electronic Properties of Conducting Nano-composites on the Hydrogen Adsorption Properties
  - Nour F. Attia, Jamal A. Siddique, Sang M. Lee, Hae J. Kim, Kurt E. Geckeler\*
- 14. **Annual National Conference of Korean Chemical Society** held on April 25-27, **2012** at Kintex Ilsan, South Korea. (**Paper Presented**)
  - Graphene Sheet Exfoliation with the Aid of Polymer Nanoparticles
  - Jamal Akhter Siddique, Nour F. Attia, Kurt E. Geckeler\*
- 15. **International Conference on Chemistry: Frontiers and Challenges** held on Mar 5-6, 2011, at Centenary Celebrations of Department at Department of Chemistry, Faculty of Science, Aligarh Muslim University, Aligarh, India. (**Paper Presented**)
- 16. **National Symposium on Recent Trends in Chemical Sciences** held on Feb 24-25, 2010 at Department of Chemistry, Faculty of Science, Aligarh Muslim University, Aligarh, India. (**Participated**)

- 17. **12<sup>th</sup> CRSI National Symposium in Chemistry** held on Feb 5-7 **2010** at Department of Chemistry, Faculty of Sciences, Hyderabad, India. (**Paper Presented**)
  - Volumetric, Ultrasonic and Viscometric Studies of Antibiotic (Quinolone) Drug with Amino Acid in Aqueous Solutions
  - Jamal Akhter Siddique and Saeeda Naqvi\*
- 18. Free Radical in Health and Disease, International SFRR Satellite Symposium, held on 17-18 March 2009 at Department of Biochemistry, Faculty of Life Sciences, Aligarh Muslim University, Aligarh, India. (Participated)
- 19. Current Challenges & Opportunities in Indian Pharmaceutical Industry, National Pharmaceutical Seminar-2009 held on 7 Mar, 2009 at Jamia Hamdard, New Delhi, India. (Participated)
- 20. Advances in clinical biochemistry-Biomarkers, Molecular Diagnosis and Quality Assurances, National Symposium held on 15-16 Nov., 2008 at Department of Biochemistry, Faculty of Medicine, Aligarh Muslim University, Aligarh, India. (Participated)
- 21. **Thermodynamics of Chemical and Biological System (NCTCBS)**, National Conference held on 16-17 Oct. **2008** at Department of Chemistry, Faculty of Science, Nagpur University, Nagpur, India. (**Participated**).

# ACADEMIC HONORS AND ACHIEVEMENTS

- Successfully organized conference as "Organizing Secretary" on Recent Advances in Materials Science and Engineering held on 28-29 March, 2019 at Department of Chemistry, School of Basic and Applied Sciences, Lingaya's University, Faridabad, India.
- Successfully organized conference as "Organizing member and advisory board member" on Advances in material Sciences &IOT of smart Environmental Monitoring and sustainability held on 20-21 March, 2018 at Department of Chemistry, School of Basic Sciences and Humanities, Lingaya's University, Faridabad, India.
- Worked as Guest-Editor for a Special Issue entitled Nanostructure Materials as a Promising Route for Efficient Renewable Energy Production, Storage, and Conversion, Journal of Nanomaterials, a peer-reviewed, published by Hindwai Publication, (London, U.K) [ISSN: 1687-4110 (Print) ISSN: 1687-4129 (Online)] (Impact Factor 2.207). https://www.hindawi.com/journals/jnm/si/412932/cfp/
- Worked as a **Guest-Editor** for a Special Issue entitled **Academic Research for Multidisciplinary** in the journal of **International Journal of Science, Technology and Society(183)**, [ISSN:2330-7412 (Print), 2330-7420 (Online)] a peer-reviewed, published by **Academic Research for Multidisciplinary Science Publishing Group (New York, USA)**.
- Worked as an **Assistant-Editor** for **Journal of Medical Imaging and Health Informatics** ISSN: 2156-7018 (Print): EISSN: 2156-7026 (Online), **American Scientific Publishers**, with Dr. Fauzan Khairi Che Harun, at UTM, Johor, Malaysia (2013-2014).
- Editor-in-Chief conference proceeding book entitled, Advances in material Sciences, Published by Lingaya's University with ISBN: 978-93-5300-666-2.
- Representative member of team for **Department of Chemistry in AICET Inspection,** in session 2017-18.
- Member of prestigious polymer society of South Korea, i.e. **Korean polymer society**.
- Member of prestigious chemical society of South Korea, i.e. **Korean Chemical society**.
- Active reviewer of **Carbohydrate Polymers** published by Elsevier.
- Active reviewer of Journal of Chemical Technology & Biotechnology published by Wiley publication.
- Active reviewer of **Cellulose** published by Springer.

- Active reviewer of **Industrial Crops and Product** published by Elsevier.
- Active reviewer of **Arabian Journal of Chemistry** published by Elsevier.
- Recipient, **Ph.D. Fellowship** (2007-2011) Department of Chemistry, Aligarh Muslim University, Aligarh, India.
- Nominee, An Interaction with **Noble Laureates and Eminent Scientists at Science Conclave**, held at Allahabad, India during December 15-21, 2008.

## PERSONAL PROFILE

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## **ACADEMIC REFERENCES**

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My asset is to work with great efficiency under stress. I like team work have flair to meet new people. I don't have any inclination towards my particular place of work.

Date:

Place: Aligarh (Jamal Akhter Siddique)