

# CURRICULUM VITAE

**SHEIKH ABDUL MAJID**

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## SUMMARY

Area of Research	Synthesis , Characterization, Application Materials (Zeolite) Synthesis of Schiff Base Ligand and their various application
Teaching Experience	More than 10 years
Peer reviewed manuscripts	30 (Thirty )
Papers presented in national & international conferences	10 (ten)
Books Published	04(four)
Book Chapter	03(three)
Project Supervised	15 Students
Project completed	Funded by Defence Research Development Establishment

## EDUCATION

Ph.D : 2014 Jiwaji University, Gwalior M.P. India-474011

B.Ed : 2011 University of Kashmir, J&K India-190011

M.Sc : 2010 Jiwaji University, Gwalior M.P. India-474011

B.Sc : 2008 University of Kashmir, J&K India-190011

12<sup>th</sup> : 2004 J&K Board of School Education Kashmir

## **Teaching Experience**

Working as **Assistant Professor**, Department of Chemistry, Islamic University of Science and Technology, Kashmir, India (**Aug 2014- still working**)

**Teaching interests/Experience**

Teaching PG, UG and 11<sup>th</sup>, 12<sup>th</sup>, NEET/JEE from last 10 years

Chemical Bonding

Organometallic Chemistry

Coordination Chemistry

Group theory

**Project Supervised**

Title: Spectroscopic and Computational Studies of Biologically Significant Schiff Base Ligands

Number of Students: 07(Seven)

**Administrative Experience**

- I/C Examination, Department of Chemistry, IUST
- Alumni Coordinator
- Member of Research Committee, Department of Chemistry.
- Member of IQAC
- Member of Board of Studies
- Member of Procurement & Budget Committee
- Member of Discipline Committee

**Research experience****1. Title & Summary of Ph.D Work****Synthesis and characterization of zeolites and their role as catalyst in organic synthesis.**

My research work is mainly focused on the synthesis, characterization and applications of Zeolites. Synthesis of zeolite materials viz zeolite-X, ZAPO-5, MCM-22 by hydrothermal method has been synthesized. The characterization of the synthesized materials is carried out by different techniques viz; X-Ray diffraction, BET surface area analysis, Fourier Transform- Infrared spectroscopy, EDAX, Thermal Programme Desorption (TPD) etc. Through characterization the detailed morphology of the materials can be studied. These materials were used in organic reactions as catalyst to study the catalytic efficiency in the synthesis of various organic compounds viz 1,5-benzadiazepine and its derivatives, 1,2,3,4-tetrahyracarbazole and benzylation reactions.

2. *Worked as Project Fellow in a project funded by Defence Research Development Establishment (DRDE) "Studies on zeolites mediated synthesis of biologically active compounds of defence interest"*

3. Worked as **Junior Research Fellow (JRF)** for one year in the School of Studies in Chemistry, Jiwaji University, Gwalior in a **DRDO** funded project ‘ ‘

#### **BOOKS PUBLISHED:**

- Zeolite: Synthesis & Application, Lambert Academic Publishing, ISSN NO. 978-613-7-15431-1
- Exploitation of zeolite/polymer for various applications, Lambert Academic Publishing, ISSN NO. 978-613-6-63514-9
- Advances in Organosulphur and Organoselenium Chemistry, Lambert Academic Publishing, ISSN NO. 978-613-5-83596-0
- Zeolite-polymer based Materials for Gas Sensors, GRIN Publications, ISSN NO. 9783668662407

#### **BOOK CHAPTERS**

- Advances in Wastewater Treatment Using Natural and Modified Zeolites, Sheikh A. Majid, Gowher Jan, Aabid H. Shalla, “Green Chemistry for Sustainable Water Purification” Wiley Online Library, ISBN 978-1-119-85229-2, page no. 21-41, 2023.
- “Eco-Friendly Application of Zeolites Emphasis on Agriculture” "SMART MATERIALS OF MEDICINAL AND INDUSTRIAL RELEVANCE" AVID SCIENCE publishers, ISBN No. **978-93-88170-01-7, July 18 , 2018.**
- Sensors: Zeolite–Polymer Composites for Gas Sensing, Encyclopedia of Polymer Applications, First Edition, Taylor & Francis. DOI: 10.1201/9781351019422-140000060, 2018.

#### **MEMBER OF EDITOR BOARD**

- International Journal of Creative Research Thoughts
- Advances in Biomedicine and Pharmacy :: Biomedicine Journal

#### **PUBLICATIONS**

1. Plant based natural products as potential ecofriendly and safer biopesticides: A comprehensive overview of their advantages over conventional pesticides, limitations and regulatory aspects. Khursheed, Aadil, Manzoor A. Rather, Vikrant Jain, Shahid Rasool, Rukhsana Nazir, Nisar Ahmad Malik, and **Sheikh Abdul Majid.** "*Microbial Pathogenesis* (2022): 105854.
2. Schiff base complexes, cancer cell lines, and anticancer evaluation: a review. **Sheikh Abdul Majid**, Jan Mohammad Mir, Gowhar Jan & Aabid Hussain Shalla. "*Journal of Coordination Chemistry*; 2022, VOL. 75, NOS. 15–16, 2018–2038.

3. A pair of carbazate derivatives as novel Schiff base ligands: DFT and POM theory supported spectroscopic and biological evaluation. **Majid, S. A.**, Mir, J. M., Bhat, M. A., Shalla, A. H., Pandey, A., Hadda, T. B., & Abdellatif, M. H. *Journal of Biomolecular Structure and Dynamics*, 1-17 (2022).
4. Enhancement of Schiff base biological efficacy by metal coordination and introduction of metallic compounds as anticovid candidates: a simple overview; Jan Mohammad Mir, **Sheikh Abdul Majid** and Aabid Hussain Shalla; *Rev Inorg Chem* 2021.
5. Solid state electron density aspects of mordenite with experimentally evaluated nitrate and phosphate sorption, J.M. Mir , M.A. Mir, S.A. Majid, B.A. Malik; *Materials Science and Engineering B* 263 (2021) 114865.
6. Molecular electron density and nitrate-phosphate sorption efficiency of zeolite-A: Physico-chemical and DFT analyses, Jan Mohammad Mir, Muzaffar Ahmad Mir & **Sheikh Abdul Majid**, *Indian Journal of Chemistry*; Vol. 59A, **July 2020**, pp. 939-947
7. Experimental and molecular topology-based biological implications of Schiff base complexes:a concise review, **Sheikh Abdul Majid**, Jan Mohammad Mir, Shazia Paul, Mymoona Akhter, Hashim Parray, Romey Ayoub and Aabid Hussain Shalla, *Rev Inorg Chem* **2019**
8. Nitrate and phosphate sorption efficiency of mordenite versus zeolite-A at the convergence of experimental and density functionalized evaluation, **Sheikh Abdul Majid**, Muzaffar Ahmad Mir & Jan Mohammad Mir, *Journal Of The Chinese Advanced Materials Society*, 31 Dec **2018**.
9. Synthesis of *t*-butyl 2-(4-hydroxy-3-methoxybenzylidene)hydrazine carboxylate: Experimental and theoretical investigations of its properties  
Muzaffar A. Bhat,Shabir H. Lone, Muzaffar A. Mir, **Sheikh A. Majid**, Haroon Mohi-ud-din Bhat, Raymond J. Butcher, Sanjay K. Srivastava, *Journal of Molecular Structure*, <https://doi.org/10.1016/j.molstruc.2018.03.087>, Available online 23 March **2018**,
10. Synthesis, spectral characterization, reactivity, DFT studies and biological activity of novel Ligand 1-(2-cyclohexyl thioethyl) piperidine and its complexes with group 12 metal chlorides.

Muzzaffar A. Bhat<sup>a\*</sup>, Shabir H. Lone<sup>b</sup>, Muzzaffar A. Mir<sup>a</sup>, **Sheikh A. Majid<sup>a</sup>**,  
**DOI:10.1002/aoc.4329** *Applied Organometallic Chemistry*, Wiley publications  
Article accepted on 23 January, **2018**

11. Studies on the synthesis and characterization of polyaniline-zeolite nanostructures and their role in carbon monoxide sensing  
Muzzaffar Ahmad Mir, Muzzaffar Ahmad Bhat, **Sheikh Abdul Majid** Manzoor Ahmad Malla, Kautily Rao Tiwari, Ashiq Hussain Pandit, Radha Tomar, Rayees Ahmad Bhat *Journal of Environmental Chemical Engineering (Accepted) 2018*
12. H/BETA Zeolite mediated synthesis of t-butyl carbazate based Schiff bases. A versatile catalyst for the synthesis of highly functionalized imines  
Muzzaffar A. Bhat, Muzzaffar A. Mir, Shabir H. Lone, **Sheikh A. Majid**, Rayees A. Bhat, Sanjay K. Srivastava, *Journal of Porous Materials*, pp 1–6, 14, Aug, **2018**.
13. Synthesis of diphenylmethane and its derivatives over ion exchange forms of MCM-22 as Catalyst;  
**Sheikh Abdul Majid**<sup>\*1</sup> and Masood Ayoub Kaloo<sup>1,2</sup> *Journal of Current Chemical and Pharmaceutical Sciences* JCCPS-17-38 (**Accepted**) **2018**
14. Free –NH<sub>2</sub> based Chemosensors for Fluoride anion Recognition: A Computational Study and its correlation with Experimental  
**Sheikh Abdul Majid**<sup>\*1</sup> and Masood Ayoub Kaloo<sup>1,2</sup> *Journal of Current Chemical and Pharmaceutical Sciences* JCCPS-17-36 (**Accepted**) **2018**
15. “Synthesis of 1, 5-Benzodiazepine and Its Derivatives by Condensation Reaction Using H-MCM-22 as Catalyst” **Sheikh Abdul Majid**, Waheed Ahmad Khanday, and Radha Tomar *Journal of Biomedicine and Biotechnology* Volume 2012, Article ID 510650, 6 pages doi:10.1155/2012/510650
16. An efficient synthesis of tetrahydrocarbazole using solid acid catalyst, **Sheikh Abdul Majid**, Waheed Ahmad Khanday, Radha Tomar, *Research Journal of Chemistry and Environment* Vol.17 (7) July (2013) pp 61-66
17. “Synthesis of benzimidazole derivatives by condensation reaction using H-alpha zeolite as catalyst” Waheed Ahmad Khanday<sup>a</sup>, **Sheikh Abdul Majid**<sup>a</sup>, S. Chandra Shekhar<sup>b</sup>, Radha Tomar<sup>a,\*</sup>, *Research Journal of Chemistry and Environment*, Vol.17 (3) March (2013) pp 40-45
18. “Study of sorption of Pb<sup>2+</sup>, Cd<sup>2+</sup>, Zn<sup>2+</sup> and Cu<sup>2+</sup> from waste water on synthetic analogues of clintonite” W. A. Khanday, S. K. Singh, J. Bhaudoriya, **S. A. Majid**, S. S.

Tomar, and Radha Tomar, *ISSN 1061\_933X, Colloid Journal, 2012, Vol. 74, No. 5, pp. 573–581. 2012.*

19. “Study of sorption of metal oxoanions from waste water on surfactant modified analog of laumontite” Preeti Gupta, Waheed Ahmad Khanday\*, **Sheikh Abdul Majid**, Vandna Kushwa, S.S. Tomar, Radha Tomar, *Journal of Environmental Chemical Engineering* Volume 1, Issue 3, September 2013, Pages 510–515
20. “Dynamic adsorption of DMMP over synthetic zeolite-Alpha, Waheed Ahmad Khanday, **Sheikh Abdul Majid**, S. Chandra Shekar, Radha Tomar, *Arabian Journal of Chemistry* Received 19 March 2013; accepted 17 June 2013
21. “Synthesis and characterization of various zeolites and study of dynamic adsorption of dimethyl methyl phosphate over them” Waheed Ahmad Khanday, **Sheikh Abdul Majid**, S. Chandra Shekar, Radha Tomar, *Materials Research Bulletin* Volume 48, Issue 11, November 2013, Pages 4679–4686

#### **PAPER PRESENTED ON CONFERANCES**

- 1) 3-Day National Workshop On “Technical Paper Writing, Patent Drafting And Filing” Department of ECE, Islamic University of Science & Technology, Awantipora, 192122, 12,13 and 14th of December 2017
- 2) Symposium on Advances in Chemical Sciences, IIT Indore, India on 30th January 2018
- 3) 11<sup>th</sup> Biennial DAE-BRNS Nuclear and Radiochemistry Symposium, NUCAR-2013 p-617
- 4) National conference on “Greener technologies for detection and treatment of pharmaceuticals” at Jiwaji University, Gwalior on 22-23 March, 2013
- National conference on “Current trends in computational methods in science & engineering” (CTCM-2013) at SMS Govt. Model Science college, Jiwaji university, Gwalior on 22-23 April, 2013.
- 5) International Conference on Chemistry and Materials: Prospects & Perspectives- ICCMPP Dec. 14-16, 2012 BBAU, Vidya Vihar Raibareli Road, Lucknow-226025, India p-2.18
- 6) National Conference on “Recent Advances In Chemical Science; Emphasis on Healthy Life” at ITM University, Gwalior (M.P.) on 21-22 September, 2012, p-OP-9
- 7) National Symposium on Recent advances in Chemical Sciences at kota University Kota (Rajasthan) (7<sup>th</sup> Jan 2011)

- 8) National conference on Advances In Electroanalytical chemistry at S.O.S in Environmental chemistry Jiwaji University, Gwalior(23-24 Dec., 2011)
- 9) National seminar on Ecological Imbalance & Effect of Global Warming On Environment at Gwalior (M.P.) (18<sup>th</sup> Dec 2010)

#### REFERENCES

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