



Assistant Professor

Dr. Brijesh Shah

Chemistry - School of Science

Qualifications

BSc, MSc, PhD

- PhD (Applied Chemistry), The Maharaja Sayajirao University of Baroda, Vadodara-2015
- MSc (Inorganic Chemistry) from Sardar Patel University, V.V.Nagar in 2009
- BSc (Chemistry) from Sardar Patel University, V.V.Nagar in 2007

Contact Details

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Research Experience

Between July 2009 to July 2015, Dr. Brijesh T. Shah was appointed as a Research Scholar at The Maharaja Sayajirao University of Baroda, Vadodara, focusing on the 'Synthesis, Characterization and Application of some novel hybrid materials as ion exchangers' with Dr. U. V. Chudasama, Emirate Professor, Department of Applied Chemistry, M.S. University of Baroda, Vadodara

Teaching Experience

- Assistant Professor, School of Science, Navrachana University, Vadodara, Gujarat, India. (August 2017 to till date)
- Teaching Assistant Applied Chemistry Department, Faculty of Technology and Engineering, MSU, Vadodara, Gujarat. (August 2014 to May 2015)
- Teaching Assistant, Department of Chemistry, Faculty of Science, MSU, Vadodara, Gujarat. (During 2013-2014, February 2011 to May 2011)

Industrial Research Interest

- R & D Executive, Rubamin Ltd. Halol, Gujarat, India. (August 2015 to July 2017)

Specialisation: Inorganic Chemistry

Current: Metal Phosphonates, Hybrid Materials, Ion Exchangers, Separation of Metals and Anions from Industrial Effluents.

Future: Catalysis, Nano Materials, Membrane preparations and applications.

Awards/Achievements/Fellowships

- University Research Fellowship by The M. S. University of Baroda, Vadodara, from 30th December 2011 to 7th August 2012

List of Publications

- Ayushi Patela, Dhara Morawalaa, Henilkumar Lankapatia, Brijesh Shahb, Kalpana Maheriaa, Ti-ATMP catalyzed esterification of levulinic acid to synthesize butyl ester, <https://doi.org/10.1016/j.matpr.2021.01.347>.
- Brijesh Shah, Uma Chudasama, Kinetics, thermodynamics and metal separation studies of transition (Co^{2+} , Ni^{2+} , Cu^{2+} , Zn^{2+}) and heavy metal ions (Cd^{2+} , Hg^{2+} , Pb^{2+}) using novel hybrid ion exchanger-Zirconium amino tris methylene phosphonic acid, Special issue of Separation Science and Technology 54(10)(2019)1560-1572. (I.F.=1.106)
- Brijesh Shah, Uma Chudasama, 'Synthesis and Characterisation of a Novel Hybrid Chelating Ion Exchanger and its Application as an Amphoteric Exchanger', Separation Science and Technology, 50 (2015) 1-11. (I.F.=1.106)
- Brijesh Shah, Uma Chudasama, 'Synthesis and Characterisation of a Novel Hybrid Material as Amphoteric Ion Exchanger for Simultaneous Removal of Cations and Anions', Journal of Hazardous materials, 276(2014)138-148. (I.F.=6.065)
- Brijesh Shah, Uma Chudasama, 'Synthesis and Characterization of a Novel Hybrid Material Titanium-Amino tris (methylenephosphonic acid) and its Application as a Cation Exchanger', Industrial & Engineering Chemistry Research, 53 (2014)17454-17467. (I. F.=2.842)
- Brijesh Shah, Tina Chakrabarty, Vinod K. Shahi, Uma Chudasama, 'Cross-linked zirconium tri-ethylenetetramine membrane in aqueous media for selective separation of Cu^{2+} ', Separation Science and Technology, 48(2013) 2382-2390. (I.F.=1.106)
- Tina Chakrabarty, Brijesh Shah, Niharika Srivastava, Vinod K. Shahi, Uma Chudasama, 'Zirconium tri-ethylene tetra-amine ligand- chelator complex based cross-linked membrane for selective recovery of Cu^{2+} by electrodialysis', Journal of Membrane Science, 428(2013) 462-469. (I.F.= 6.035)
- Brijesh Shah, Uma Chudasama, 'Application of zirconium phosphonate-a novel hybrid material as an ion exchanger', Desalination and Water Treatment, 38(2012) 227-235. (I.F.=1.102)

Seminars/Conferences/Workshops

Total Publications: 23 | Total Citation: 490 | h-index: 13 | i10-index - 16

- Oral presented on 'Synthesis and Characterisation of a Novel Hybrid Chelating Ion Exchanger and its Application as an Amphoteric Exchanger', DAE-BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC-2014), Department of Atomic Energy and Board of Research of Nuclear Science, BARC, Mumbai, 25th - 28th February 2014.
- Poster presented on 'Cross-linked zirconium tri-ethylene tetra-amine membrane in aqueous media for selective separation of Cu^{2+} ', DAE-BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC-2012), Mithi Bhai College, Mumbai, 27th February - 1st March 2012.

3. Oral presented on 'Application of Metal Phosphonate -A novel Hybrid Material as an Ion Exchanger', National Symposium on Advances in Separation and Purification Science & Technology (NSST-2011), Department of Chemical Engineering, G H Patel College of Engineering & Technology, Vallabh Vidhyanagar, 4th - 5th February 2011.
4. Oral presented on 'Synthesis, characterisation and application of a novel metal phosphonate, using claw type amino phosphonic acid as donor in the binding of tetravalent metal', 3rd Asian Conference on coordination Chemistry (ACCC-3), Department of Chemistry, IIT Kanpur and IIT Delhi, 17th - 20th October 2011.5. Poster presented on 'Synthesis and Characterisation of a Novel Hybrid Amphoteric Exchanger', 3rd International Symposium on Materials Chemistry (ISMC-2010), Society for Materials Chemistry & Chemical Division, BARC, Mumbai, 7th -11th December 2010.
6. Poster presented on 'Application of A Novel Hybrid Material as an Ion Exchanger', 24th Gujarat Science Congress, Gujarat University and Gujarat Science Academy, Ahmedabad, 21st March 2010.
7. Poster presented on 'Application of zirconium phosphonate - a novel hybrid material as an ion exchanger', Symposium on Emerging Trends in Separation Science and Technology (SESTEC-2010), IGCAR-Chennai, 1st - 4th March 2010.
8. Advances in Water & Wastewater Treatment Technology, organized by Civil Engineering Department, Faculty of Technology & Engineering, The M. S. University of Baroda, Vadodara, 7th February 2010.
9. National conference on 'Water: Membranes and other Purification Technologies' organized by Indian water works Association and Indian Membrane Society, Faculty of Technology & Engineering, The M. S. University of Baroda, Vadodara, 9th - 10th January 2010.
10. Modern Trends in Inorganic Chemistry (MTIC-XII) organized by, Department of Inorganic and Physical Chemistry, Indian Institute of Science (IISc), Indian Institute of Science, Bangalore, 9th - 13th December 2009

