

Curriculum Vitae

King Abdullah Institute for Nanotechnology
King Saud University

PRESENT ADDRESS:

P.O. Box 2454 - Riyadh 11451, Saudi Arabia

Email: aslamkhan@ksu.edu.sa

Tel. +966-1-4678369 (Office)

Mobile: 0551713538

Fax. +966 1 4670662

Web: <http://faculty.ksu.edu.sa/aslamkhan>



ASLAM KHAN, Ph.D

PRESENT POSITION

05/2008 – **Assistant Professor** at [King Abdullah Institute for Nanotechnology](#) (KAIN), King Saud University, Riyadh
till date

In-charge of [Scanning Electron Microscopy](#) and [Transmission Electron Microscopy](#) at KAIN

PROFESSIONAL EXPERIENCE

2007-2008 **Postdoctoral Scientist**, [Nanophotonics and Nanomedicine Group](#), Department of Chemistry, **Pohang University of Science and Technology** (POSTECH), South Korea.

2004-2007 **Scientist**, Centre for Nanotechnology, [Indian Institute of Technology, Guwahati](#), India

2003-2004 **Postdoctoral Fellow**, Centre for Biomedical Engineering, [Indian Institute of Technology, Delhi](#), India.

ACADEMIC DEGREES

2003 PhD, Chemistry, [Hamdard University](#), New Delhi, India.

2000 MSc, Chemistry, [Aligarh Muslim University](#), Aligarh, India

1998 BSc (Hons.), Chemistry, [Aligarh Muslim University](#), Aligarh, India

AWARD & FELLOWSHIPS

2007 Best Poster presentation award, International Conference on Materials for Advanced Technology (ICMAT 2007), Singapore, 1-6 July 2007

2004 Young Scientist, Department of Science and Technology, New Delhi, Govt of India.

2003 – 2004 Post Doctoral Fellowship, Indian Institute of Technology, Delhi.

2001 – 2003 Hamdard National Foundation Fellowship, New Delhi

AWARD & FELLOWSHIPS

2015 – Till date Editor: Journal of Bioelectronics and Nanotechnology

SCIENTIFIC INTEREST

Nanopolymer, Bioamaterials for Drug Delivery,
Metal nanoparticles, Quantum dots, Magnetic nanoparticles for biomedical application.

WORKING EXPERIENCE ON MODERN ANALYTICAL INSTRUMENTS

1. Field Emission Scanning Electron Microscope (FESEM)
2. Transmission Electron microscope (TEM) (operating voltage from 80 keV to 200 keV)
3. Raman spectroscopy
4. Dynamic light scattering (DLS)
5. X-ray diffraction (SAXS /WAXS)
6. FTIR, ATR-FTIR, UV-vis (NIR)
7. Gel Permeation Chromatography (GPC) for polymer characterization.
8. NMR Spectroscopy for Polymers.

LABORATORY SETUP

Actively participate in purchasing and setup of various analytical instruments since last ten years to modernize the laboratory.

- **I was actively involved in setting up electron microscopy facilities (Transmission Electron Microscopy) at IIT Guwahati during my tenure (2004-07) and its operation.**
- **Electron Microscopy Facilities at King Saud University: As soon as I joined KSU, I was involved in setting up various analytical laboratories related to nanotechnology research. Under my supervision Electron microscope facilities was set up at KAIN and installed TEM and FE-SEM in 2008-09. Since then I am In-charge of FE-SEM and TEM. I am well verse (hand on operation) with these sophisticated instruments.**

TEACHING EXPERIENCE

2002 –2003 Teaching Assistant (M.Sc previous), Department of Chemistry, Hamdard University, New Delhi.

RESEARCH PROJECTS:

1. Deanship of Scientific Research, King Saud University, RG-1438-094
Role: Principal Investigator, Starting Year: 2017, Status: Ongoing
2. Deanship of Scientific Research, King Saud University, RG-1438-094
Role: CO-PI, PI: Dr. Ahmed El-Toni, Starting Year: 2014, Status: Ongoing
3. "Development of stimuli sensitive nanogels for controlled release systems."
Funded by: [Department of Science and Technology, New Delhi](#), India
Role: Principal Investigator
Year: 2004 – 2007; Status: COMPLETED SUCCESSFULLY

4. "Synthesis of core-shell mesoporous architectures based on anionic surfactants for drug delivery"
Funded by: National Plan for Science & Technology thru' [King Abdul Aziz City of Science and Technology](#) (KACST), Saudi Arabia
Role: Co-Principal Investigator
Year: 2010-2013; Status: Completed
5. "Development of temperature sensitive polymer-gold nanoparticles hybrid materials for biomedical application"
Funded by: National Plan for Science & Technology thru' KACST, Saudi Arabia
Role: Principal Investigator
Year: 2010-2013; Status: Completed
6. "Silicon nanoparticles in sol gel based active media for optoelectronic applications"
Funded by: National Plan for Science & Technology thru' KACST; Code: 10-NAN1037
Role: Co-Principal Investigator, Year: 2010-2013; Status: Completed

PUBLICATIONS

1. [Bifunctional electrocatalysts \(Co₉S₈@NSC\) derived from polymer-metal complex- for oxygen reduction and oxygen evolution reactions](#), Tansir Ahamad, Jahangeer Ahmed, **Aslam Khan**, Mu Naushad, and Saad Alshehri, *Chem Electro Chem*, **2018** DOI: 10.1002/celc.201700955
2. [Bifunctional electro-catalytic performances of CoWO₄ nanocubes for water redox reactions \(OER/ORR\)](#), Jahangeer Ahmed, Tansir Ahamad, Prabhakarn Arunachalam, Tokeer Ahmad and **Aslam Khan**, *RSC Adv.*, **2017**, 7, 45615.
3. [Efficient photodegradation of methylthioninium chloride dye in aqueous using barium tungstate nanoparticles](#), Jahangeer Ahmed, Tansir Ahamad, Basheer M. Almaswari, **Aslam Khan**, *J Nanopart Res* (2017) 19:289.
4. [Mechanism of Enhanced Carbon Substitution in CNT-MgB₂ Superconductor Composite Using Ball Milling in a Methanol Medium: Positive Role of Boron Oxide](#), Fahad Saad Alghamdi, M. Shahabuddin, Nasser S. Alzayed, Niyaz Ahamad Madhar, Jafar M. Parakkandy, M. A. Majeed Khan, **Aslam Khan**, Md. Shahriar Al Hossain, *J Supercond Nov Magn*, **2017** DOI 10.1007/s10948-017-4279-y
5. [Temperature Dependent Surface and Spectral Modifications of Nano V₂O₅ Films](#), M. Aslam Manthrammel, A. Fatehmulla, A. M. Al-Dhafiri, A. S. Alshammari, and **Aslam Khan**, *Optics and Spectroscopy*, **2017**, Vol. 122, No. 3, pp. 420–425.
6. [Study of the effect of PVA on dielectric constant and Structure of TiO₂- polypyrrolecomposites prepared By in-situ polymerization](#), K. Ahmed, F. Kanwal, S. M. Ramay, S. Atiq, **Aslam Khan**, A. Mahmood, *Digest Journal of Nanomaterials and Biostructures* Vol. 12, No. 3, July - September **2017**, p. 775 – 783.
7. [Polysulfone–Poly \(Orthotoluidine\) Nanocomposite Membrane With an Improved Separation Performance](#), Mansour Alhoshan, Javed Alam, **Aslam Khan**, Fahad Surur Al Shabouna, Senthivel Sasivarnam, Lawrence Arockiasamy Dass, Arun Kumar Shukla, *POLYMER COMPOSITES*, 38, E157-E166 (2017).

8. [Electroactive Shape Memory Property of a Cu-decorated CNT Dispersed PLA/ESO Nanocomposite](#), Javed Alam, **Aslam Khan**, Manawwer Alam and Raja Mohan, *Materials*, 8, 6391-6400, 2015.
9. [Optimization of Synthesis Parameters for Mesoporous Shell Formation on Magnetic Nanocores and Their Application as Nanocarriers for Docetaxel Cancer Drug](#), Ahmed Mohamed El-Toni*, Mohamed Abbas Ibrahim, Joselito Puzon Labis, **Aslam Khan**, Mansour Alhoshan, *International Journal of Molecular Sciences*, 14, 11496-11509, 2013.
10. [Preparation and Characterization of pH-Responsive and Thermo-responsive Hybrid Microgel Particles with Gold Nanorods](#), **Aslam Khan***, Mansour Alhoshan, *Journal of Polymer Science: Polymer Chemistry*, 51, 39-46, 2013.
11. [Preparation of thermo-responsive hydrogel-coated magnetic nanoparticles](#), **Aslam Khan***, Ahmed Mohamed M. El-Toni, Mansour Alhoshan, *Materials Letters*, 89, 12-15, 2012.
12. [Fabrication of mesoporous silica shell on solid silica spheres using anionic surfactants and their potential application in controlling drug release](#), Ahmed Mohamed El-Toni*, **Aslam Khan**, Mohamed Abbas Ibrahim, Mansour Al-Hoshan, Joselito Puzon Labis, *Molecules*, 17, 13199-13210, 2012.
13. [CdS Nanoparticles with a Thermo-responsive Polymer: Synthesis and Properties](#), **Aslam Khan***, *Journal of Nanomaterials*, 2012, Article ID 451506, 8 pages, DOI: 10.1155/2012/451506.
14. [Synthesis of magnetic core-mesoporous silica shell nanoparticles using anionic surfactant and their application for ketoprofen control release](#), Ahmed Mohamed El-Toni*, **Aslam Khan**, Joselito Puzon Labis, Mohamed Abbas Ibrahim, Mansour Al-Hoshan, *Chemistry Letters*, 41, 1357-1359, 2012.
15. [Synthesis of double mesoporous core-shell silica spheres with tunable core porosity and their drug release and cancer cell apoptosis properties](#), Ahmed Mohamed El-Toni*, **Aslam Khan**, Mohamed Abbas Ibrahim, Joselito Puzon Labis, Gamal badr, Mansour Al-Hoshan, Shu Yin, Tsugio Sato, *Journal of Colloid and Interface Science*, 378, 83-92, 2012.
16. [Impact of textural properties of double mesoporous core-shell silica nanospheres on drug loading and in vitro release](#), Mohamed Abbas Ibrahim, Ahmed Mohamed El-Toni*, **Aslam Khan**, Joselito Puzon Labis, Mansour Alhoshan, *Digest Journal of Nanomaterials and Biostructures*, 7, 447-458, 2012.
17. [Preparation of magnetic polyacrylonitrile core-shell nanospheres by the miniemulsion polymerization method](#), **Aslam Khan***, Ahmed Mohamed El-Toni, Mansour Alhoshan, *Materials Letters*, 76, 141-143, 2012.
18. [Microwave-assisted synthesis of silver nanoparticles using poly-N-isopropylacrylamide/acrylic acid microgel particles](#), **Aslam Khan***, Ahmed Mohamed El-Toni, Salman Alrokayan, Mohamed Alsalhi, Abdullah Aldwayyan, Mansour Alhoshan, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 377, 356-360, 2011.
19. [Synthesis and characterization of polyaniline/iron oxide nanoparticles composite by in-situ chemical oxidative polymerization](#), **Aslam Khan***, Abdullah Aldwayyan, Mansour Alhoshan, Mohamed Alsalhi, *Polymer International*, 59, 1690-1694, 2010.
20. [Humidity Sensor Using NIPAAm Nanogel as Sensing Medium in SAW Devices](#), N. Ramakrishnan, Talla Vamsi, **Aslam Khan**, Harshal B. Nemade*, Roy Paily Palathinkal, *International Journal of Nanoscience*, 10, 259-262, 2011.

21. [Stabilizer Specific Interaction of Gold Nanoparticles with a Thermoresponsive Polymer Hydrogel](#), A. Murugadoss, **Aslam Khan**, Arun Chattopadhyay*, *Journal of Nanoparticle Research* 12, 1331-1348, 2010.
22. [Preparation and characterization of magnetic nanoparticles embedded in microgels](#), **Aslam Khan***, *Materials Letters* 62, 898-902, 2008.
23. [Preparation and characterization of N-isopropylacrylamide/acrylic acid copolymer core-shell microgel particles](#), **Aslam Khan***, *Journal of Colloid and Interface Science* 313 (2), 697-704, 2007.
24. [Blend epoxidized oil/acacia polymeric films and their effect of external stimuli on the equilibrium swelling properties](#), Sharif Ahmad, **Aslam Khan**, Najm Z. Khan*, *Material Science and Research* 1, 23-34, 2003.
25. [External Stimuli Responsive Characteristics of Epoxy-Polyamide/Starch Blend Films](#), Sharif Ahmad, **Aslam Khan**, Najm Z. Khan*, *Journal of Macromolecular Science – Pure & Applied Chemistry* A40 (11), 1183 – 1197, 2003.

CONFERENCE PROCEEDINGS

1. **A. Khan**, M. Alhoshan, "A green approach to synthesis of metal nanoparticles using microgel particles" **NANOTHAILAND 2012, April 9-11, 2012, Khon Kaen, Thailand**
2. **A. Khan**, M. Alhoshan, "Preparation and Characterization of pH- and Temperature Responsive Hybrid Microgel Particles with Gold Nanorods" **COLLOIDS AND NANOMEDICINE CONFERENCE 2012, July 15-17, AMSTERDAM, The Netherland**
3. **A. Khan**, A. Aldwayyan, M. Alhoshan, M. Alsalhi, "Synthesis and characterization of iron oxide-polyaniline core-shell nanoparticles" International Conference for nanotechnology Industries, Riyadh, April 5-7, 2009.
4. **A. Khan**, A. Aldwayyan, M. Alhoshan, M. Alsalhi, "Synthesis and characterization of iron oxide-polyaniline core-shell nanoparticles" International Conference on Nanostructured Advanced Materials, Jordan, 10-13 Nov 2008.
5. **A. Khan**, "One pot synthesis of NIPAAm/acrylic acid copolymer core-shell microgels" International Conference on Materials for Advanced Technology (ICMAT 2007), Singapore, 1-6 July 2007. BEST POSTER AWARD.
6. **A. Khan**, "Temperature-pH sensitive polymer coated magnetic nanoparticles" Indo-US Symposium on Nanotechnology in Advanced Drug Delivery, NIPER, Punjab, October 4-6, 2006.
7. **A. Khan**, A. Chattopadhyay, 6th International Conference on Scientific and Clinical Applications of Magnetic Carries, Krems, Austria, May 17-20, 2006.
8. **A. Khan**, A. Chattopadhyay, 8th International Conference on Nanostructured Materials (NANO-2006), Indian Institute of Science, Bangalore, August 20-25, 2006.
9. **A. Khan**, Ahmad S., Khan, N. Z. Blended Epoxy-based Polymeric Films: Characterization, pH, Temperature and Ionic Strength Dependence, **Proc. 90th Indian Science Congress**, Part III (Advance Abstracts), 2003, pp.120-121.
10. **A. Khan**, Ahmad S., Khan NZ. Polyamide cured epoxy oil in biomedicine. Paper presented in 53rd Indian Pharmaceutical Congress 2001, New Delhi, December 21-23, 2001.
11. **A. Khan**, A. Chattopadhyay, "Synthesis and characterization of iron oxide nanoparticles" National Conference on Advanced Characterization Techniques on Nanomaterials, Indian Institute of Technology, Roorkee, India, August 24-26, 2005.