Curriculum Vitae

PRESENT ADDRESS:

King Abdullah Institute for Nanotechnology,
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ASLAM KHAN, Ph.D

PRESENT POSITION

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

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-1435-002
   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; Peer review articles:
https://scholar.google.com/citations?user=HvP4ceEAAAAJ&hl=en

1. **Aslam Khan***, Tajdar Husain Khan, Maqusood Ahamed, Ahmed Mohamed El-Toni, Ali Aldalbahi, Javed Alam, Tansir Ahamad, **Temperature-Responsive Polymer Microgel-Gold Nanorods Composite Particles: Physicochemical Characterization and Cytocompatibility**, ***Polymers***, **2018, 10(1), 99.** doi:10.3390/polym10010099
2. **Aslam Khan***, Ahmed Mohamed El-Toni, Javed Alam, Ali Aldalbahi, Mukhtar Ahmed, Joselito Puzon Labis, Tansir Ahamad, Mahmoud Hezam**, Semi-bath Polymerization Approach for One Pot Synthesis of Temperature and Glucose Responsive Core-Shell Nanogel Particles**, ***Journal of Nanomaterials***, **2018, Article No 2180518, 9.** doi.org/10.1155/2018/2180518
3. Javed Alam,* Arun Kumar Shukla, Mansour Alhoshan, Lawrence Arockiasamy Dass, Muthumareeswaran M.R, **Aslam Khan**, Fekri Abdulraqeb Ahmed Ali, **Graphene Oxide, an Effective Nanoadditive for a Development of Hollow Fibre Nanocomposite Membrane with Antifouling Properties**, ***Advances in Polymer Technology***, **2018.** DOI: 10.1002/adv.21935
4. Saad Alshehri, Jahangeer Ahmed, **Aslam Khan,** Mu Naushad, and Tansir Ahamad*, **Bifunctional electrocatalysts (Co9S8@NSC) derived from polymer-metal complex- for oxygen reduction and oxygen evolution reactions**, ***Chem Electro Chem,*** **2018, 5(2) 355-361.** DOI: 10.1002/celc.201700955
5. Fahad Saad Alghamdi, M. Shahabuddin*, Nasser S. Alzayed, Niyaz Ahamad Madhar, Jafar M. Parakkandy, M. A. Majeed Khan, **Aslam Khan**, Md. Shahriar Al Hossain, **Mechanism of Enhanced Carbon Substitution in CNT-MgB2 Superconductor Composite Using Ball Milling in a Methanol Medium: Positive Role of Boron Oxide**, ***J Supercond Nov Magn***, **2017** DOI 10.1007/s10948-017-4279-y
6. Tokeer Ahmad*, Mohd Shahazad, Mohd Ubaidullah, Jahangeer Ahmed, **Aslam Khan,** Ahmed El-Toni, **Structural characterization and dielectric properties of ceria-titania nanocomposites in low ceria region**, ***Mater. Res. Express,*** **2017, 4, 125016** DOI: 10.1088/2053-1591/aa9c51
7. Mohamed Habila*, Zeid AlOthman, Ahmed El-Toni*, Joselito Puzon Labis, **Aslam Khan**, Adel Al-Marghany, Hussain Alafifi, **One-Step Carbon Coating and Polyacrylamide Functionalization of Fe3O4 Nanoparticles for Enhancing Magnetic Adsorptive-Remediation of Heavy Metals**, ***Molecules,*** **2017**, 22, 2074. doi:10.3390/molecules22122074
8. Jahangeer Ahmed*, Tansir Ahamad, Prabhakarn Arunachalam, Tokeer Ahmad and **Aslam Khan**, **Bifunctional electro-catalytic performances of CoWO4 nanocubes for water redox reactions (OER/ORR)**, ***RSC Adv.,*** **2017**, 7, 45615. **DOI:**10.1039/C7RA07256B
9. Jahangeer Ahmed*, Tansir Ahamad, Basheer M. Almaswari, **Aslam Khan**, **Efficient photodegradation of methylthioninium chloride dye in aqueous using barium tungstate nanoparticles**, ***J Nanopart Res,*** **2017,** 19, 289. DOI:10.1007/s11051-017-3970-z
10. M. Aslam Manthrammel*, A. Fatehmulla, A. M. Al-Dhafiri, A. S. Alshammari, and **Aslam Khan,** **Temperature Dependent Surface and Spectral Modifications of Nano V2O5 Films**, ***Optics and Spectroscopy***, ***2017***, *Vol. 122, No. 3, pp. 420–425.* DOI: 10.1134/S0030400X1703002X
11. K. Ahmed, F. Kanwal, S. M. Ramay*, S. Atiq, **Aslam Khan**, A. Mahmood, **Study of the effect of PVA on dielectric constant and Structure of TiO_2-polypyrrolecomposites prepared By in-situ polymerization**, ***Digest Journal of Nanomaterials and Biostructures.*** **2017**, 12 (3), 775 – 783.
12. **Aslam Khan*****, **Thermo-responsive hybrid microgel particles with gold nanorods**, ***J Bioremediat Biodegrad***, **2017**, 8(6), 71. DOI: 10.4172/2155-6199-C1-012
13. Mansour Alhoshan, Javed Alam*, **Aslam Khan**, Fahad Surur Al Shabouna, Senthivel Sasivarnam, Lawrence Arockiasamy Dass, Arun Kumar Shukla, **Polysulfone–Poly (Orthotoluidine) Nanocomposite Membrane With an Improved Separation Performance**, ***Polymer Composites***, **2017**, 38, E157-E166. **DOI:** 10.1002/pc.24000
14. Javed Alam*, **Aslam Khan**, Manawwer Alam and Raja Mohan, **Electroactive Shape Memory Property of a Cu-decorated CNT Dispersed PLA/ESO Nanocomposite**, ***Materials,*** **2015**, 8, 6391-6400. DOI:10.3390/ma8095313
15. Ahmed Mohamed El-Toni*, Mohamed Abbas Ibrahim, Joselito Puzon Labis, **Aslam Khan**, Mansour Alhoshan, **Optimization of Synthesis Parameters for Mesoporous Shell Formation on Magnetic**

Nanocores and Their Application as Nanocarriers for Docetaxel Cancer Drug, *International Journal of Molecular Sciences*, **2013,** 14, 11496-11509. DOI: 10.3390/ijms140611496

16. **Aslam Khan***, Mansour Alhoshan, **Preparation and Characterization of pH-Responsive and Thermoresponsive Hybrid Microgel Particles with Gold Nanorods**, ***Journal of Polymer Science: Polymer Chemistry*, 2013**, 51, 39-46. DOI: 10.1002/pola.26372
17. **Aslam Khan***, Ahmed Mohamed M. El-Toni, Mansour Alhoshan, **Preparation of thermo-responsive hydrogel-coated magnetic nanoparticles**, ***Materials Letters***, **2012**, 89, 12-15. DOI: 10.1016/j.matlet.2012.08.064
18. Ahmed Mohamed El-Toni*, **Aslam Khan**, Mohamed Abbas Ibrahim, Mansour Al-Hoshan, Joselito Puzon Labis, **Fabrication of mesoporous silica shell on solid silica spheres using anionic surfactants and their potential application in controlling drug release**, ***Molecules*, 2012,** 17, 13199-13210. DOI: 10.3390/molecules171113199
19. **Aslam Khan***, **CdS Nanoparticles with a Thermoresponsiv Polymer: Synthesis and Properties**, ***Journal of Nanomaterials***, **2012**, Article ID 451506, 8 pages, DOI: 10.1155/2012/451506. [**Single authorship**]
20. Ahmed Mohamed El-Toni*, **Aslam Khan**, Joselito Puzon Labis, Mohamed Abbas Ibrahim, Mansour Al-Hoshan, **Synthesis of magnetic core-mesoporous silica shell nanoparticles using anionic surfactant and their application for ketoprofen control release**, ***Chemistry Letters*, 2012,** 41, 1357-1359. DOI: 10.1246/cl.2012.1357
21. Ahmed Mohamed El-Toni*, **Aslam Khan**, Mohamed Abbas Ibrahim, Joselito Puzon Labis, Gamal badr, Mansour Al-Hoshan, Shu Yin, Tsugio Sato, **Synthesis of double mesoporous core–shell silica spheres with tunable core porosity and their drug release and cancer cell apoptosis properties**, ***Journal of Colloid and Interface Science*, 2012,** 378, 83-92. DOI: 10.1016/j.jcis.2012.04.006
22. Mohamed Abbas Ibrahim, Ahmed Mohamed El-Toni*, **Aslam Khan**, Joselito Puzon Labis, Mansour Alhoshan, **Impact of textural properties of double mesoporous coreshell silica nanospheres on drug loading and in vitro release**, ***Digest Journal of Nanomaterials and Biostructures,*** 7, 447-458, **2012**.
23. **Aslam Khan***, Ahmed Mohamed El-Toni, Mansour Alhoshan, **Preparation of magnetic polyacrylonitrile core–shell nanospheres by the miniemulsion polymerization method**, ***Materials Letters, 2012,*** *76, 141*-143. DOI: 10.1016/j.matlet.2012.02.089
24. **Aslam Khan***, Ahmed Mohamed El-Toni, Salman Alrokayan, Mohamed Alsalhi, Abdullah Aldwayyan, Mansour Alhoshan, **Microwave-assisted synthesis of silver nanoparticles using poly-N-isopropylacrylamide/acrylic acid microgel particles**, ***Colloids and Surfaces A: Physicochemical and Engineering Aspects,*** **2011**, 377, 356-360. DOI:10.1016/j.colsurfa.2011.01.042
25. **Aslam Khan***, Abdullah Aldwayyan, Mansour Alhoshan, Mohamed Alsalhi, **Synthesis and characterization of polyaniline/iron oxide nanoparticles composite by *in-situ* chemical oxidative polymerization**, ***Polymer International***, **2010**, 59, 1690-1694. DOI: 10.1002/pi.2908
26. A. Alsalhi, **Aslam Khan***, T. Ahamad, Synthesis and characterization of CdS nanocrystals with thermoresponsive polymer, ***AIP Conference Proceedings***, **2010**, 1229, 94-100. DOI: 10.1063/1.3419707
27. N. Ramakrishnan, Talla Vamsi, **Aslam Khan**, Harshal B. Nemade*, Roy Paily Palathinkal, **Humidity Sensor Using NIPAAm Nanogel as Sensing Medium in SAW Devices**, ***International Journal of Nanoscience***, **2011**, 10, 259-262. DOI: 10.1142/S0219581X11007880
28. A. Murugadoss, **Aslam Khan,** Arun Chattopadhyay*, **Stabilizer Specific Interaction of Gold Nanoparticles with a Thermoresponsive Polymer Hydrogel**, ***Journal of Nanoparticle Research,*** **2010,** 12, 1331-1348. DOI: 10.1007/s11051-009-9668-0
29. **Aslam Khan*, Preparation and characterization of magnetic nanoparticles embedded in microgels**, ***Materials Letters,*** **2008,** 62, 898-902. DOI: 10.1016/j.matlet.2007.07.011 [**Single authorship**]
30. **Aslam Khan***, **Preparation and characterization of N-isopropylacrylamide/acrylic acid copolymer core-shell microgel particles**, ***Journal of Colloid and Interface Science*** **2007**, 313 (2), 697-704. DOI: 10.1016/j.jcis.2007.05.027 [**Single authorship**]
31. Sharif Ahmad, **Aslam Khan,** Najm Z. Khan*, **Blend epoxidized oil/acacia polymeric films and their effect of external stimuli on the equilibrium swelling properties**, ***Material Science and Research*** **2003,** 1, 23-34.
32. Sharif Ahmad, **Aslam Khan,** Najm Z. Khan*, **External Stimuli Responsive Characteristics of Epoxy-Polyamide/Starch Blend Films**, ***Journal of Macromolecular Science – Pure & Applied Chemistry*** A, **2003**, 40 (11), 1183-1197. DOI: 10.1081/MA-120024833

CONFERENCE PROCEEDINGS

1. **A. Khan, Thermo-responsive hybrid microgel particles with gold nanodors"** 7th International Conference and Exhibition on Biopolymers and Bioplastics, October 19-20, 2017 San Francisco, USA
2. **A. Khan**, M. Alhoshan, "A green approach to synthesis of metal nanoparticles using microgel particles" NANOTHAILAND 2012, April 9-11, 2012, Khon Kaen, Thailand
3. **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**
4. **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.
5. **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.
6. **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.
7. **A. Khan**, "Temperature-pH sensitive polymer coated magnetic nanoparticles" Indo-US Symposium on Nanotechnology in Advanced Drug Delivery, NIPER, Punjab, October 4-6, 2006.
8. **A. Khan**, A. Chattopadhyay, 6th International Conference on Scientific and Clinical Applications of Magnetic Carries, Krems, Austria, May 17-20, 2006.
9. **A. Khan**, A. Chattopadhyay, 8th International Conference on Nanostructured Materials (NANO-2006), Indian Institute of Science, Bangalore, August 20-25, 2006.
10. **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.
11. **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.
12. **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.