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CAREER OBJECTIVE

I would galvanize quality in workmanship with oodles of motivation so as to drag place a perfectionists scale to my working methodologies. I am interested to work with a research organization or institution, where I can utilize my skills, knowledge, and experience.

EDUCATION

- **Instructor:** Alfaisal University, Riyadh, Saudi Arabia (**Since Sep-2014**)
- **Postdoctoral Fellow:** Completed at Changwon National University, Changwon, South korea (**March-2013 to 31 August 2014**)
- **Ph.D (Nanotechnology):** Completed from Changwon National University, Changwon, South korea (**Awarded in Feb-2013**)

Title of Doctorate thesis: *“Transition Metal (TM)-Doped ZnO Nanostructures”*.

- **M.Sc. (Physics) (2007):** Completed from Aligarh Muslim University, Aligarh, India with **First division**.
- **B.Sc. (Hons.) Physics (2003):** Completed from Aligarh Muslim University, Aligarh, India with **First division**.
- **Intermediate (2000):** U.P. Board, Amroha, India with **First division**.

RESEARCH INTEREST

- Diluted Magnetic Semiconductors
- One Dimensional Metal Oxides Nanostructures for gas sensing and photocatalytic applications
- Nanomaterials for biomedical and renewable energy applications

BOOKS/BOOK CHAPTERS

- **“CROP IMPROVEMENT UNDER ADVERSE CONDITIONS”**: *Chapter 11*:
Nanobiotechnology: Scope and potential for crop improvement
Faheem Ahmed, Nishat Arshi, Shalendra Kumar, Narendra Tuteja, Sarvajeet Singh Gill and Bon Heun Koo
(2013), pp245-269, DOI: 10.1007/978-1-4614-4633-0_11; ISBN: 978-1-4614-4633-0
Springer Science + Business Media, LLC 233 Spring Street, New York, NY 10013, USA.

PATENTS

- **Photocatalytic elevated ability of degradation and manufacturing method thereof**
Faheem Ahmed, and Bon Heun Koo
Korean Patent, (2014), Filed
File Number: 10-2014-0030894; Receipt Number: 1-1-2014-0253454-57

PUBLICATIONS IN PEER REVIEWED JOURNALS

Year (2016)

- 1. Cr doping assisted tuning of functional properties of ZnO nanorods prepared by fast solution route**
Faheem Ahmed, N Arshi, BH Koo, I Laraib, E Alsharaeh
Journal of Sol-Gel Science and Technology, Volume 77, (2016), 179-185.
- 2. Novel route for the preparation of cobalt oxide nanoparticles/reduced graphene oxide nanocomposites and their antibacterial activities**
Edreese Alsharaeh, Yasmin Mussa, Faheem Ahmed, Yazeed Aldawsari, Mohammed Al-Hindawi, Garwin Kim Sing,
Ceramics International, Volume 42, (2016), 3407-3410.
- 3. Novel synthesis of ZnO nanoparticles and their enhanced anticancer activity: Role of ZnO as a drug carrier**
Mohamed F. Al-Ajmi, Afzal Hussain, Faheem Ahmed

Ceramics International, Volume 42, (2016), 4462-4469.

4. **Novel Biomimatic Synthesis of ZnO Nanorods using Egg white (Albumen) and their Antibacterial studies**

Faheem Ahmed, Nishat Arshi, Saurabh Dwivedi, B.H.Koo, Edreese Alsharaeh,

Journal of Nanoscience and Nanotechnology 2016, In press.

5. **Correlation of Structural, Morphological, Electrical and Mechanical Properties of TiN thin film at different substrate bias**

Nishat Arshi, Faheem Ahmed, Edreese H. Alsharaeh and Bon Heun Koo

Science of Advanced materials 2016, In press.

Year (2015)

6. **Relationship Between Structural, Morphological, Optical and Magnetic Properties of Transition Metal (TM)-Doped ZnO Nanostructures Prepared by Microwave-Hydrothermal,**

Faheem Ahmed, N Arshi, MS Anwar, R Danish, BH Koo

Journal of Nanoscience and Nanotechnology, Volume 15 (2), (2015), 1460-1464.

7. **Synthesis and Characterization of Nanocrystalline Doped-ZnO Powder for Advanced Varistor Application**

MS Anwar, Faheem Ahmed, BH Koo,

Journal of Nanoscience and Nanotechnology, Volume 15 (10), (2015), 8271-8274.

8. **Influence of Zn on magnetocaloric effect in (0.95) La_{0.7} Sr_{0.3} MnO₃/Ni_{1-x} Zn_xFe₂O₄ ceramic composites**

MS Anwar, AA Khan, KY Park, SR Lee, Faheem Ahmed, BH Koo,

Materials Research Bulletin, Volume 69, (2015), 41-45.

9. **Influence of Ce addition on the structural, magnetic, and magnetocaloric properties in La_{0.7-x}Ce_xSr_{0.3}MnO₃ (0 ≤ x ≤ 0.3) ceramic compound**

MS Anwar, Faheem Ahmed, BH Koo

Ceramics International, Volume 41 (4), (2015), 5821-5829.

10. **Plate-like Na_{0.5}Bi_{0.5}TiO₃ particles synthesized by topochemical microcrystal conversion method**

A Hussain, JU Rahman, Faheem Ahmed, JS Kim, MH Kim, TK Song, WJ Kim

Journal of the European Ceramic Society, Volume 35 (3), (2015), 919-925.

11. **Magnetocaloric response of La_{0.7}Ca_{0.1}Sr_{0.2}Fe_{0.1}Mn_{0.9}O₃ perovskite for magnetic refrigeration**

MS Anwar, Faheem Ahmed, BH Koo

Bulletin of Materials Science, Volume 38 (1), (2015), 101-104.

12. Magnetization and Magnetocaloric Effect in Sol–Gel Derived Nanocrystalline Copper–Zinc Ferrite

MS Anwar, Faheem Ahmed, BH Koo

Journal of Nanoscience and Nanotechnology, Volume 15 (2), (2015), 1448-1451.

13. Impact of Co₃O₄ phase on the magnetocaloric effect and magnetoresistance in La 0.7 Sr 0.3 MnO₃/Co₃O₄ and La 0.7 Ca 0.3 MnO₃/Co₃O₄ ceramic composites

MS Anwar, Faheem Ahmed, R Danish, BH Koo

Ceramics International, Volume 41 (1), (2014), 631-637.

Year (2014)

14. Quantum-confinement induced enhancement in photocatalytic properties of iron oxide nanoparticles prepared by Ionic liquid

Faheem Ahmed, N Arshi, MS Anwar, R Danish, BH Koo

Ceramics International, Volume 40 (10), (2014), 15743-15751.

15. Improving Functional Properties of ZnO Nanostructures by Transition-metal Doping: Role of Aspect Ratio

Faheem Ahmed, Nishat Arshi, M.S. Anwar, and B.H. Koo

Journal of Sol Gel Science & Technology, Volume 72, (2014), 1-7.

16. Morphological evolution of ZnO nanostructures and their aspect ratio induced enhancement in photocatalytic properties

Faheem Ahmed, Nishat Arshi, M.S. Anwar, Rehan Danish and B.H. Koo

RSC Advances, (2014), Volume 4, (2014), 29249-29263.

17. Doping dependent properties of Cr-doped ZnO nanostructures prepared by microwave irradiation

Faheem Ahmed, Nishat Arshi, M.S. Anwar, and B.H. Koo

Journal of Nanoscience and Nanotechnology, Volume 14 (11) (2014), 8590-8595.

18. Structural distortion effect on the magnetization and magnetocaloric effect in Pr modified La 0.65 Sr 0.35 MnO₃ manganite

MS Anwar, Faheem Ahmed, BH Koo

Journal of Alloys and Compounds, Volume 617, (2014), 893-898.

19. Enhanced relative cooling power of Ni_{1-x}Zn_xFe₂O₄ ferrites

M.S. Anwar, Faheem Ahmed, and B.H. Koo

Acta Materialia, Volume 71, (2014), 100-107.

20. Effect of Concentration on the Growth of Rutile TiO₂ Nanocrystals
Rehan Danish, Faheem Ahmed, and B.H. Koo
Journal of Nanoscience and Nanotechnology, Volume 14 (11), (2014), 8584-8589.
21. Dimensionality Dependent Magnetic and Magnetocaloric Response of La_{0.6}Ca_{0.4}MnO₃ Manganite
MS Anwar, Faheem Ahmed, BH Koo
Journal of nanoscience and nanotechnology, Volume 14 (11), (2014), 8745-8749.
22. Facile synthesis of single-crystalline rutile TiO₂ nano-rods by solution method
Rehan Danish, Faheem Ahmed, and B.H. Koo
Transactions of Nonferrous Metals Society of China, Volume 24, (2014), s152-s156.
23. Rapid synthesis of high surface area anatase Titanium Oxide quantum dots
R Danish, Faheem Ahmed, BH Koo
Ceramics International, Volume 40 (8), (2014), 12675-12680.
24. Effect of Reaction Time on the Morphology of ZnO Nanorods by Wet Chemical Method
Si Nae Heo, Faheem Ahmed, Keun Young Park, and B.H. Koo
Journal of Nanoelectronics and Optoelectronics, Volume 9 (1), (2014), 50-53.
25. Effects of Nitrogen Content on the Phase and Resistivity of TaN Thin Films Deposited by Electron Beam Evaporation
N Arshi, J Lu, CG Lee, BH Koo, Faheem Ahmed
Journal of Materials, Volume 66 (9), (2014), 1893-1899.
26. Effect of sintering temperature on structure, magnetic and magnetocaloric properties of La_{0.6}Ca_{0.4}MnO₃ manganite
SR Lee, MS Anwar, Faheem Ahmed, BH Koo
Transactions of Nonferrous Metals Society of China, Volume 24, (2014), s141-s145.
27. Growth temperature dependent properties of ZnO nanorod arrays on glass substrate prepared by wet chemical method
SN Heo, Faheem Ahmed, BH Koo
Ceramics International, Volume 40 (4), (2014), 5467-5471.

Year (2013)

28. Mn-doped ZnO Nanorod Gas Sensor for Oxygen detection
Faheem Ahmed, Nishat Arshi, M.S. Anwar, Rehan Danish and B.H. Koo
Current Applied Physics, Volume 13, (2013), s64-s68

- 29. Facile Growth of ZnO nanorod arrays by a Microwave-Assisted Solution Method for Oxygen Gas Sensing**
Faheem Ahmed, Nishat Arshi, M.S. Anwar, and B.H. Koo
Thin Solid Films, Volume 547, (2013), 168-172.
- 30. Effect of Transition Metal (Co, Ni and Cu) doping on Lattice Volume, Band Gap, Morphology and Saturation Magnetization of ZnO Nanostructures**
Faheem Ahmed, Nishat Arshi, Shalendra Kumar, M.S. Anwar, and B.H. Koo
Journal of the Korean Physical society, Volume 62, (2013), 1479-1484.
- 31. Relationship between structural, morphological, optical and magnetic properties of transition metal (TM)-doped ZnO nanostructures prepared by microwave-hydrothermal**
Faheem Ahmed, Nishat Arshi, M.S. Anwar, Rehan Danish and B.H. Koo
Journal of Nanoscience and Nanotechnology, (2013), Accepted.
- 32. Structural, magnetic and electronic structure properties of pure and Ti doped $Mg_{0.95}Mn_{0.05}Fe_2O_4$ nanocrystalline thin films**
Shalendra Kumar, Faheem Ahmed, M.S. Anwar, B.H.Koo, H.K. Choi, S.Gautam, K.H.Chae, Hanshik Chung
Ceramics International, Volume 13, (2013), 1645–1650.
- 33. Effect of the nitrogen inducing agents on the corrosion behavior of the AlON-Al₂O₃ coatings prepared by electrolytic plasma processing on the Al6061 alloy**
Kai Wang, Geun Woo Kim, Keun Young Park, Sang Sik Byeon, Faheem Ahmed and Bon Heun Koo
Metals and Materials International, Volume 19, (2013), 77-80.
- 34. Power Dependent Structural, Morphological and Electrical Properties of e–beam Evaporated Tantalum Films**
Nishat Arshi, Junqing Lu, Chan Gyu Lee, Bon Heun Koo and Faheem Ahmed
Electronics Materials Letters, Volume 9, (2013), 841-844.
- 35. Effect of Substrate Temperature on the Properties of e–beam deposited Tantalum Films**
Nishat Arshi, Junqing Lu, Chan Gyu Lee, Bon Heun Koo and Faheem Ahmed
Thin Solid Films, Volume 546, (2013), 22-25.
- 36. Effect of Solution Concentration on the Functional Properties of ZnO Nanostructures: Role of Hexamethylenetetramine**
Si Nae Heo, Keun Young Park, Seung Rok Lee, Yong Jun Seo,

- Faheem Ahmed, M. S. Anwar and Bon Heun Koo*
Electronic Materials Letters, Volume 9, (2013), 261-265.
- 37. Morphological studies of SnO₂ thin films fabricated by using e-beam method**
Si Nae Heo, C. H. Sung, Y. J. Seo, K. Y. Park, Faheem Ahmed, M. S. Anwar and Bon Heun Koo
Journal of Nanoscience and Nanotechnology, Volume 13, (2013), 3446-50.
- 38. Antibacterial and cytotoxic efficacy of extracellular silver nanoparticles biofabricated from chromium reducing novel OS₄ strain of Stenotrophomonas maltophilia**
Mohammad Oves, Mohammad Saghir Khan, Almas Zaidi, Arham S. Ahmed, Faheem Ahmed, Ejaz Ahmad, Asif Sherwani, Mohammad Owais, Ameer Azam
Plos One, Volume 8, (2013), e59140.
- 39. Effect of Na₂SiO₃ Concentration on the Properties of AZ31 Magnesium Alloy Prepared by Electrolytic Plasma Processing**
Byung-Hyun Ahn, Dong-Gun Lee, Ho-Je Cho, Seung-Rok Lee, Faheem Ahmed, M.S. Anwar, and Bon-Heun Koo
Electron. Mater. Lett., Vol. 9, No. 6 (2013), 1-3.
- 40. Fabrication of Co-Doped ZnO Nanorods for Spintronic Devices**
Ameer Azam, Faheem Ahmed, Sami S. Habib, Zishan H. Khan, and Numan A. Salah
Met. Mater. Int., Vol. 19, No. 4 (2013), 845-850.
- 41. Microwave-assisted synthesis of SnO₂ nanorods for oxygen gas sensing at room temperature**
Ameer Azam, Sami S Habib, Numan A Salah, Faheem Ahmed
International Journal of Nanomedicine, Volume 8, (2013), 3875–3882.
- 42. Growth temperature dependent properties of ZnO nanorods arrays on glass substrate by wet chemical method**
Si Nae Heo, Faheem Ahmed, Bon Heun Koo
Ceramics International, Volume 40, (2014), 5467-5471.
- 43. Thickness effect on properties of titanium film deposited by d.c magnetron sputtering and electron beam evaporation.**
Nishat Arshi, Junqing Lu, Chan Gyu Lee, Faheem Ahmed
Bulletin of Materials Science, Volume 36, (2013), 807-812.
- 44. Influence of Nitrogen gas flow rate on the Structural, Morphological and Electrical properties of sputtered TiN films.**

- Nishat Arshi, Junqing Lu, Yun Kon Joo, Chan Gyu Lee, Jae Hong Yoon, and Faheem Ahmed*
Materials Science: Materials in Electronics, Volume 24, (2013), 1194-1202.
45. **Facile Synthesis of ZnO Nanoparticles Using Mechanochemical Route and their Structural, Morphological and Thermal Properties**
Kim Sung Jae, Faheem Ahmed, Nishat Arshi, M.S. Anwar, Rehan Danish and B.H. Koo
Applied Mechanics and Materials, Volume 378, (2013), 220-224
46. **Indication of room temperature ferromagnetism in highly transparent and conductive Ga-doped SnO₂ thin films**
M.S Anwar, Faheem Ahmed, Si Nae Heo, Keun Young Park, and Bon Heun Koo
Thin Solid Films, Volume 547, (2013), 137-140
47. **Study of A-Site Disorder Dependent Structural, Magnetic, and Magnetocaloric Properties in La_{0.7-x}Sm_xCa_{0.3}MnO₃ Manganites**
M.S. Anwar, Faheem Ahmed, Lee Seung Rok, Rehan Danish and B.H. Koo
Japanese Journal of Applied Physics, Volume 52, (2013), 10MC12
48. **Study of Magnetic Transition and Magnetocaloric Effect in La_{1-x}Sr_xMnO₃ Compounds**
Jeong Yeong Seung, M.S. Anwar, Faheem Ahmed, Lee Seung Rok and B.H. Koo
Applied Mechanics and Materials, Volume 378, (2013), 225-229
49. **Study of magnetic entropy change in La_{0.65}Sr_{0.35}Cu_{0.1}Mn_{0.9}O₃ complex perovskite**
M.S. Anwar, Shalendra Kumar, Faheem Ahmed, Si Nae Heo, G.W. Kim and B.H. Koo
Journal of Electroceramics, Volume 30, (2013), 46-50
50. **The interplay of Ca and Sr in the bulk magnetocaloric La_{0.7}Sr_(0.3-x)Ca_xMnO₃ (x = 0, 0.1 and 0.3) manganite**
M.S. Anwar, Faheem Ahmed, G.W. Kim, Si Nae Heo, and B.H. Koo
Journal of the Korean Physical Society, Volume 62, (2013), 1974-1978

Year (2012)

51. **Direct relationship amongst lattice volume, bandgap, morphology and magnetization of transition metal (Cr, Mn and Fe)-doped ZnO nanostructures**
Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S. Anwar, Bon Heun Koo
Acta Materialia, Volume 60, (2012), 5190-5196.
52. **Morphological evolution between Nanorods to Nanosheets and Room Temperature**

Ferromagnetism of Fe-doped ZnO Nanostructures

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo

CrystEngComm, Volume 14, (2012), 4016-4026.

53. Effect of Ni substitution on structural, morphological and magnetic properties of Zn_{1-x}Ni_xO nanorods

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo

Current Applied Physics, Volume 12, (2012), S174-S177.

54. Structural and Magnetic properties of Zn_{1-x}Co_xO nanorods prepared by microwave irradiation technique

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo and Chan Gyu Lee

Journal of Nanoscience and Nanotechnology, Volume 12 (2), (2012), 1386-1389.

55. Magnetic, Optical and Structural Property studies of Mn-doped ZnO Nanosheets

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Si Nae Heo, Geun Woo Kim, Eung Sun Byon, Sung Hun Lee, Nam Jin Lyu and Bon Heun Koo

Journal of Nanoscience and Nanotechnology, Volume 12 (2012) 5464–5468.

56. Room temperature ferromagnetism in Cu doped ZnO nanorods prepared using microwave irradiation method

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Si Nae Heo, Geun Woo Kim, Junqing Lu and Bon Heun Koo

Journal of the Korean Physical society, Volume 60 (2012) 1644 – 1648.

57. Study on Structural, Morphological and Electrical Properties of Sputtered Titanium nitride film under different argon gas flow

Nishat Arshi, Junqing Lu, Yun Kon Joo, Chan Gyu Lee, Jae Hong Yoon, Faheem Ahmed

Materials Chemistry and Physics, Volume 134, (2012), 839-844.

58. Effect of substrate temperature on micro-structural properties of Ti and TiN films deposited by e-beam evaporation technique.

Nishat Arshi, Junqing Lu, Bon Heun koo, Chan Gyu Lee and Faheem Ahmed

Surface Review and Letters, Volume 19, No. 4, (2012), 1250037.

59. Effect of Nitrogen flow rate on the Properties of TiN Film deposited by e – beam evaporation technique

Nishat Arshi, Junqing Lu, Bon Heun Koo, Chan Gyu Lee and Faheem Ahmed

Applied Surface Science, Volume 258, (2012), 8498– 8505.

60. Microwave assisted hydrothermal synthesis and magnetocaloric properties of $\text{La}_{0.67}\text{Sr}_{0.33}\text{MnO}_3$ manganite
M. S. Anwar, Shalendra Kumar, Faheem Ahmed, Nishat Arshi and Bon Heun Koo,
Journal of Nanoscience and Nanotechnology, Volume 12, (2012), 5523-5526.
61. Structural, magnetic and magnetocaloric properties of $\text{La}_{0.65}\text{Sr}_{0.35}\text{V}_{0.1}\text{Mn}_{0.9}\text{O}_3$ perovskite
M. S. Anwar, Shalendra Kumar, Faheem Ahmed, Nishat Arshi and Bon Heun Koo
Materials Research Bulletin, Volume 47, (2012), 2977–2979.
62. Magnetic transition and magnetocaloric effect in $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$ compounds
M. S. Anwar, Shalendra Kumar, Faheem Ahmed, and Bon Heun Koo,
Journal of Ceramic Processing Research, Volume 13, No. 1, (2012), s100-104.
63. Above room temperature magnetic transition and magnetocaloric effect in $\text{La}_{0.66}\text{Sr}_{0.34}\text{MnO}_3$
M. S. Anwar, Shalendra Kumar, Faheem Ahmed, Nishat Arshi and Bon Heun Koo
Journal of the Korean Physical society, Volume 60, No. 10 (2012), 1587-1592.
64. The Interplay of Ca and Sr in the Bulk Magnetocaloric Manganite $\text{La}_{0.7}\text{Sr}_{(0.3-x)}\text{Ca}_x\text{MnO}_3$ ($x = 0, 0.1$ and 0.3),
M. S. Anwar, Faheem Ahmed, G. W. Kim, Si Nae Heo, and Bon Heun Koo
Journal of the Korean Physical Society, (2012), Accepted.
65. Characteristics of the $\text{AlON-Al}_2\text{O}_3$ ceramic coatings on the Al6061 alloy by electrolytic plasma processing
Kai Wang, Sang Sik Byeon, Geun Woo Kim, Keun Young Park, Faheem Ahmed and Bon Heun Koo
Korean Journal of Materials Research, Volume 22 (3), (2012).
66. Signature of room temperature ferromagnetism in Mn doped CeO_2 nanoparticles
Shalendra Kumar, Faheem Ahmed, M.S. Anwar, H.K. Choi, Hanshik Chung, B.H. Koo
Materials Research Bulletin, Volume 47, (2012), 2980–2983.
67. One step synthesis of rutile TiO_2 nanoparticles at low temperature
M. S. Anwar, Shalendra Kumar, Faheem Ahmed, Nishat Arshi, Yong Jun Seo, Chan Gyu Lee and Bon Heun Koo
Journal of Nanoscience and Nanotechnology, Volume 12, (2012), 1–4.

Year (2011)

68. Rapid and cost effective synthesis of ZnO nanorods using microwave irradiation

technique

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo and Chan Gyu Lee,

Functional Materials Letters, Volume 4, No. 1, (2011), 1–5: Selected as cover article

69. Doping effects of Co²⁺ ions on ZnO nanoparticles synthesized by auto combustion method and their characterizations

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo and Chan Gyu Lee,

Microelectronic Engineering, Volume 89, (2011), 129-132.

70. Defect Induced Room Temperature Ferromagnetism in Well-Aligned ZnO Nanorods Grown on Si (100) Substrate

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo and Chan Gyu Lee

Thin Solid Film, Volume 519, (23), (2011), 8199.

71. Preparation and Characterizations of Polyaniline (PANI)-ZnO Nanocomposites Film using Solution Casting Method

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Lee Su-Yeon, Bon Heun Koo and Chan Gyu Lee

Thin Solid Film, Volume 519, (23), (2011), 8375.

72. Structural and magnetic study of Co doped ZnO nanoparticles synthesized by auto combustion method

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo and Chan Gyu Lee

International Journal of Nanoscience, Volume 10, Nos. 4 & 5, (2011), 1025-1028.

73. Growth and characterization of ZnO nanorods by microwave-assisted route: green chemistry approach

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, and Ram prakash

Advanced Materials Letters, Volume 2(3), (2011), 183-187.

74. Microwave assisted synthesis of Gold nanoparticles and their antibacterial activity against Escherichia Coli (E.Coli)

Nishat Arshi, Faheem Ahmed, Shalendra Kumar, M.S.Anwar, Bon Heun Koo, Junqing Lu and Chan Gyu Lee

Current Applied Physics, Volume 11, (2011), S360-S363.

75. Comparative study of the Ag/pvp nanocomposites synthesized in water and in

Ethylene glycol

Nishat Arshi, *Faheem Ahmed*, Shalendra Kumar, M.S.Anwar, Bon Heun Koo, Junqing Lu and Chan Gyu Lee

Current Applied Physics, Volume 11, (2011), S346-S349.

76. Room temperature ferromagnetism in Ni doped In₂O₃ nanoparticles

Ram Prakash, Shalendra Kumar, *Faheem Ahmed*, Chan Gyu Lee, Jung Il Song

Thin Solid Film, Volume 519 (23), (2011), 8243.

77. Novel and cost effective synthesis of silver nanocrystals: A green synthesis

Nishat Arshi, *Faheem Ahmed*, Shalendra Kumar, M.S.Anwar, Bon Heun Koo, Junqing Lu and Chan Gyu Lee

NANO: Brief Reports and Reviews, Volume 6, No. 4, (2011), 1–6.

78. Hydrothermal synthesis and indication of room temperature ferromagnetism in CeO₂ nanowires

M. S. Anwar, Shalendra Kumar, *Faheem Ahmed*, Chan Gyu Lee and Bon Heun Koo

Materials Letters, Volume 65, (19-20), (2011), 3098.

79. Study of spray dried doped zinc oxide nanopowder for varistor application

M. S. Anwar, Shalendra Kumar, *Faheem Ahmed*, Chan Gyu Lee and Bon Heun Koo

International Journal of Nanoscience, Vol. 10, Nos. 4 & 5 (2011), 1029-1033.

80. Structural and optical study of Samarium doped cerium oxide thin film prepared by electron beam evaporation

M. S. Anwar, Shalendra Kumar, N. Arshi, *Faheem Ahmed*, C. G. Lee, B. H. Koo

Journal of Alloys and Compounds, Volume 509, Issue 13, (2011), 4525-4529.

81. Study of nano-crystalline ceria thin films deposited by e-beam technique

M. S. Anwar, Shalendra Kumar, *Faheem Ahmed*, Nishat Arshi, Yong Jun Seo, Chan Gyu Lee and Bon Heun Koo

Current Applied Physics, Volume 11, Issue 1, (2011), S301-S304.

82. Study of magnetic entropy change in La_{0.65}Sr_{0.35}Cu_{0.1}Mn_{0.9}O₃ complex perovskite,

M. S. Anwar, Shalendra Kumar, *Faheem Ahmed*, and Bon Heun Koo

Journal of Electroceramics, (2011), Accepted.

83. Synthesis and characterization of polyanilineZr(IV)sulphosalicylate composite and its applications (1) electrical conductivity, and (2) antimicrobial activity studies

S.A. Nabi, Mohammad Shahadat, Rani Bushra, M. Oves, *Faheem Ahmed*

Chemical Engineering Journal. Volume 173(3), (2011), 706.

84. Structural, magnetic and electronic structure studies of Mn doped TiO₂ thin films

Shalendra Kumar, S. Gautam, G.W. Kim, *Faheem Ahmed*, M.S. Anwar, K.H. Chae, H.K. Choi, H. Chung, B.H. Koo

Applied Surface Science, Volume 257(24), (2011), 10557.

85. Large magnetic entropy change in La_{0.55}Ce_{0.2}Ca_{0.25}MnO₃ Perovskite

M. S. Anwar, Shalendra Kumar, *Faheem Ahmed*, Nishat Arshi, Yong Jun Seo, Chan Gyu Lee and Bon Heun Koo

Journal of Magnetism, Volume 16(4), (2011), 457-460.

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86. Formation and Characterization of ZnO Nanopowder Synthesized by Sol gel Method

Ameer Azam, *Faheem Ahmed*, Nishat Arshi, M. Chaman and A.H. Naqvi

Journal of Alloys and Compounds, Volume 496, Issues 1-2, (2010), 399-402.

87. Development of composite ion-exchange adsorbent for pollutants removal from environmental wastes

S.A. Nabi, Mohammad Shahadat, Rani Bushra, A.H. Shalla, and *Faheem Ahmed*

Chemical Engineering Journal, Volume 165, Issue 2, (2010), 405-412.

PAPERS PRESENTED IN INTERNATIONAL CONFERENCES

-
- **Cr doped ZnO nanorods prepared by microwave assisted method: synthesis and characterizations**
Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo and Chan Gyu Lee,
International conference on Nanoscience Nanotechnology and Advanced Materials (NANOS-2010), December 17-19, 2010, Vishakhapatnam, India
- **Structural and magnetic study of Co doped ZnO nanoparticles synthesized by auto combustion method,**
Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo and Chan Gyu Lee,
International Conference on Nanoscience and Technology (ICONSAT), February 17-20, 2010, Mumbai, India.
- **Microwave-assisted growth of spear shaped ZnO nanorods (nanoflowers)**
Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo and Chan Gyu Lee,

The 7th Asian Meeting on Ferroelectricity (AMF-7) and the 7th Asian Meeting on Electroceramics (AMEC-7), June 28-July 1, 2010, Jeju island, Korea.

- **Doping effects of Co²⁺ ions on ZnO nanoparticles synthesized by auto combustion method and their characterizations**

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo and Chan Gyu Lee

International Union of Materials Research Societies — International Conference on Electronic Materials (IUMRS-ICEM), August 22-27, 2010, Seoul, Korea.

- **Structural and Magnetic properties of Zn_{1-x}Co_xO nanorods prepared by microwave irradiation technique**

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo and Chan Gyu Lee,

International Union of Materials Research Societies — International Conference on Electronic Materials (IUMRS-ICEM), August 22-27, 2010, Seoul, Korea.

- **Defect Induced Room Temperature Ferromagnetism in Well-Aligned ZnO Nanorods Grown on Si (100) Substrate**

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo and Chan Gyu Lee,

International Conference of AUMS (ICAUMS), December 5-8, 2010, Lotte Hotel Jeju, Jeju Island, Korea.

- **Preparation and Characterizations of Polyaniline (PANI)-ZnO Nanocomposites Film using Solution Casting Method**

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Lee Su-Yeon, Bon Heun Koo and Chan Gyu Lee,

International Conference of AUMS (ICAUMS), December 5-8, 2010, Lotte Hotel Jeju, Jeju Island, Korea.

- **Magnetic, Optical and Structural Property studies of Mn-doped ZnO Nanosheets**

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Si Nae Heo, Geun Woo Kim, Eung Sun Byon, Sung Hun Lee, Nam Jin Lyu and Bon Heun Koo

The 9th International nanotech Symposium & nano-Convergence Expo in Korea (NANOKOREA), August 24-26 2011, Kintex, Korea.

- **Room temperature ferromagnetism in Cu doped ZnO nanorods prepared using microwave irradiation method**

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Si Nae Heo, Geun Woo Kim, Junqing Lu and Bon Heun Koo

The 15th International Symposium on the Physics of Semiconductors and Applications (ISPSA), July 5-8, 2011, Ramada Plaza Jeju Hotel, Korea.

- **Room temperature ferromagnetism in Fe doped ZnO nanorods prepared using chemical route**

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Si Nae Heo, Geun Woo Kim, Junqing Lu and Bon Heun Koo

2011 International Forum on Functional Materials, the 2nd Special Symposium on Advances in Functional Materials (IFFM), July 28-31, 2011, Jeju Grand Hotel, Jeju, Korea.

- **Effect of solution concentration on the morphologies of ZnO nanostructures: Synthesis and characterizations**

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo

The 3rd International Symposium on Advanced functional Materials (ISAFM), August 26-28, 2011, Changwon National University, Changwon, Korea.

- **Influence of Ni doping on structural and magnetic properties of Zn_{1-x}Ni_xO nanorods**

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo

The 2nd International Symposium on Hybrid Materials and Processing, (HyMaP), October 27-29, 2011, Grand Hotel, Haeundae, Busan, Korea

- **Mn-doped ZnO Nanorod Gas Sensor for Oxygen detection**

Faheem Ahmed, Nishat Arshi, M.S.Anwar, Rehan Danish, Bon Heun Koo

The 2nd International Conference on Electronic Materials and Nanotechnology for Green Environment, (ENGE), September 16-19, 2012, Jeju, Korea.

- **Facile Growth of ZnO nanorod arrays by a Microwave-Assisted Solution Method for Oxygen Gas Sensing**

Faheem Ahmed, Nishat Arshi, M.S.Anwar, Bon Heun Koo

International Conference on Microelectronics and Plasma Technology, (ICMAP), July 4-6, 2012, Ramada Plaza, Jeju, Korea.

- **Effect of Transition Metal (Co, Ni and Cu) doping on Lattice Volume, Band Gap, Morphology and Saturation Magnetization of ZnO Nanostructures**

Faheem Ahmed, Shalendra Kumar, Nishat Arshi, M.S.Anwar, Bon Heun Koo

The 19th International Conference on Magnetism, (ICM), July 8-13, 2012, Bexco, Busan, Korea.

- **Effect of microwave irradiation time on the morphologies of ZnO nanostructures: Nanoflower to dispersed nanorods**
Faheem Ahmed, Nishat Arshi, Shalendra Kumar, M.S.Anwar and Bon Heun Koo
The 9th International Conference on Fracture and Strength of Solids (FEOFS), June 9-13, 2013, Jeju, Korea.
- **Microwave-hydrothermal growth of transition metals (Cr, Fe)-doped ZnO nanostructures and their dopant dependent properties**
Faheem Ahmed, Nishat Arshi, M.S.Anwar, Rehan Danish and Bon Heun Koo
The 16th International Symposium on the Physics of Semiconductors and Applications (ISPSA), July 2-5, 2013, Ramada Plaza Jeju Hotel, Korea.
- **Relationship between structural, morphological, optical and magnetic properties of transition metal doped ZnO nanostructures prepared by microwave-hydrothermal**
Faheem Ahmed, Nishat Arshi, M.S.Anwar, Rehan Danish and Bon Heun Koo
The 24th International Conference on Molecular Electronics and Devices (ICME&D), May 15-16, 2013, KAIST, Korea.
- **Doping dependent properties of Cr-doped ZnO nanostructures prepared by microwave irradiation**
Faheem Ahmed, Nishat Arshi, M.S.Anwar, Rehan Danish and Bon Heun Koo
International nanotech Symposium & nano-Convergence Expo in Korea (NANOKOREA), July 10-12 2013, COEX, Korea.

CHARACTERIZATION TECHNIQUES KNOWN

- Transmission electron microscope (TEM) including HRTEM and SAED
- Scanning electron microscope (SEM)
- Atomic force microscope (AFM) and scanning tunneling microscope (STM)
- X-ray diffractometer (XRD).
- UV-visible spectrophotometer.
- Raman spectrophotometer
- Photoluminescence (PL)
- Physical properties measurement system (PPMS)
- FT-IR
- Etching cell
- Four probe setup
- Polymer Press machine
- Ball Mill
- Programmable muffle furnace
- Ultrasonicator
- Centrifuge
- Microwave Hydrothermal

- Gas sensing system
- Analysis of NEXAFS and EXAFS spectra
- Photocatalytic reactor

INSTRUMENT DESIGN

- Successfully designed economical and highly sensitive Gas sensor system for detection of various oxidizing and reducing gases.

PEER REVIEWER

- Powder Technology.
- Vacuum.
- International Journal of Nanomedicines.

EDITORIAL BOARD MEMBER

- Nanotechnology and Nanoscience; Bioinfo Publication.
- Science Research; Science Publication Group.

MEMBERSHIP

- Korean Physical Society (R.No: 130005AFA).
- ORCID (<http://orcid.org/0000-0002-5436-1966>)
- Scopus Author ID: 55419740000

COMPUTER KNOWLEDGE AND SOFTWARES KNOWN

- C, C++, FORTRAN-77.
- MS-OFFICE 2000, 2003, 2007.
- ADOBE PHOTOSHOP, ADOBE ILLUSTRATOR.
- OPERATING SYSTEMS: WINDOWS 98, 2000, XP, VISTA, FEDORA, LINUX.
- ORIGIN, POWDER-X, SPIP IMAGE PROCESSOR FOR SPM TECHNIQUES, WSXM FOR SPM, SPM LAB ANALYSIS ONLY, IMAGE VIEWER, EXPO, PCPDFWIN, IMAGE J.

STRENGTHS & ACHIEVEMENTS

- Encourages healthy tasking through team oriented outlook.
- Tremendously gifted towards grasping any introductory module.
- Active participant to various literary and cultural competitions at both school and college level.

- Natural feeder to proactive tendencies of cutting across the restraints of ethnic and cultural diversities, thereby comfortably stretching over to people from different beats.
- Capable of reporting outputs tuned to demands of any professional environment.

EXTRA CURRICULAR ACTIVITIES

- **BLACK BELT** holder in **TAEKWONDO** (Martial Arts).
- **JOINT SECRETARY** of Aligarh Kick Boxing Association.
- Held the post of **SPORTS SECRETARY** at university level.
- Organizer of **INDOOR GAMES CHAMPIONSHIP** at university level.
- Winner of **GOLD MEDALS** in National Martial Arts Championships.
- Captained the **BADMINTON TEAM** at university level.
- Award for **BEST FIGHTER** in the National Taekwondo Championship.
- **One Lakh Indian Rupees** Cheque from U.P.Government, India for National Gold medal in Kick- Boxing.
- First prize at university **BADMINTON CHAMPIONSHIP**.

AWARDS RECIEVED

- “Novel Biosynthesis of ZnO nanorods using Egg white and their antibacterial properties towards wide range of micro- organisms” Alfaisal University Internal Research Grant (IRG 2015), 2015.
- Best poster award in International conference on metals and materials, (2010), Changwon, Korea.
- Research paper selected as cover article in Functional Materials Letters (**IF=2.8**)
- Nomination as “Man of the Year 2013” from International Biographical Centre. Cambridge, England.
- Received “Honorary Doctorate of Letters” from International Biographical Centre, Cambridge, England.

- Selected as a recipient of the “International President’s Award for Iconic Achievement” from International Biographical Centre, Cambridge, England.
- Biography selected as “Dictionary of International Biography” in International Biographical Centre, Cambridge, England.

REFERENCES

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PERSONAL DETAILS

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3. **Nationality :** Indian
4. **Marital status :** Married
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6. **Languages known:** English, Hindi, Urdu, Korean
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DECLARATION

I hereby declare that the above mentioned information is authentic to the best of my knowledge and belief.



FAHEEM AHMED