

Published Papers (in the last 2 years)

1. Mixed-state magnetotransport properties of MgB₂ thin film prepared by pulsed laser deposition on an Al₂O₃ substrate N. S. Alzayed, M. Shahabuddin, Shahid M. Ramey, S. Soltan. *Journal of Materials Science: Materials in Electronics*, January 2019, Volume 30, Issue 2, pp 1547–1552.
2. Magnetic Field Dependence of Magnetotransport Properties of MgB₂/CrO₂ Bilayer Thin Films, N. S. Alzayed, M. Shahabuddin, Shahid M. Ramey, S. Soltan, *Journal of Superconductivity and Novel Magnetism*, August 2019, Volume 32, Issue 8, pp 2447–2455.
3. Correlation between grain connectivity, packing density, and critical current density in MgB₂ synthesized by in situ/ex situ combination technique. M. Shahabuddin SHAH, Md. SHAHABUDDIN, Nasser S. ALZAYED. *Cryogenics* 2019. Proceedings of the 15th IIR International Conference: Prague, Czech Republic, April 8-11, 2019.
4. Enhancement of Critical Current Density of MgB₂ by Glutaric Acid Doping: a Simultaneous Improvement on the Intrinsic and Extrinsic Properties. Jafar M. Parakkandy · M. Aslam Manthrammel · Fahad Saad Alghamdi, Mohammed Shahabuddin and Nasser S. Alzayed, *J Supercond Nov Magn* (2018) 31:989–993
5. Fluctuation-Induced Conductivity of Carbon in Glucose-Doped MgB₂ Superconductor, Intikhab A. Ansari, Jafar M. Parakkandy, M. Shahabuddin Shah, Mohammed Shahabuddin, Nasser S. Alzayed, *Arabian Journal for Science and Engineering*, January 2017, Volume 42, Issue 1, pp 383–388
6. Zeyad Almutairi, Kaleem Ahmad, Mosaad Alanazi and Abdulaziz AlHazaa, Processing of Single-Walled Carbon Nanotubes with Femtosecond Laser Pulses, *Appl. Sci.* 2019, 9, 4022.
7. MK Shahzad, Y Zhang, A Raza, M Ikram, K Q, Polymer Microfibers Incorporated with Silver Nanoparticles: a New Platform for Optical Sensing, *Nanoscale research letters*, 2019.
8. M.A. Khan, W Khan, A Kumar, AN Alhazaa - Synthesis of nanosized Cu₂O decorated single-walled carbon nanotubes and their superior catalytic activity, *Colloids and Surfaces A: Physicochemical and Engineering Aspect*, 81, 2019.
9. M.A. Majeed Khan, Rahul Siwach, Sushil Kumar, Abdulaziz N Alhazaa, Role of Fe doping in tuning photocatalytic and photoelectrochemical properties of TiO₂ for photodegradation of methylene blue, *Optics & Laser Technology*, 118, 170-178, 2019.
10. El-Sayed M. Sherif, A. N. Alhazaa, Hany S. Abdo, Manufacturing of Mg-Ti couples at different heat treatment temperatures and their corrosion behavior 4 in chloride solutions, *Materials* 12, 2019.

11. M.A. Majeed Khana, Wasi Khan, Maqusood Ahamed, Abdulaziz N. Alhazaa, Investigation on the structure and physical properties of Fe₃O₄/RGO nanocomposites and their photocatalytic application, Materials Science in Semiconductor Processing 99: 44–53, 2019.
12. Abdulaziz AlHazaa, Ibrahim AlHwaimel, Muhammad Ali Shar, Mahmoud Hezam, Hany S. Abdo and Hamad AlBrithen, Transient Liquid Phase bonding of Ti-6Al-4V and Mg-AZ31 alloys using Zn coatings, Materials, 12, 769, 2019.
13. MA Majeed Khan, Wasi Khan, M Naziruddin Khan, Abdulaziz N Alhazaa, Enhanced visible light-driven photocatalytic performance of Zr doped CeO₂ nanoparticles, Journal of Materials Science: Materials in Electronics, 1-10, 2019.
14. Shiqi Zhou, Chih-han Yang, Shih-kang Lin, Abdulaziz N AlHazaa, Omid Mokhtari, Xiangdong Liu, Hiroshi Nishikawa, Effects of Ti addition on the microstructure, mechanical properties and electrical resistivity of eutectic Sn58Bi alloy, Materials Science and Engineering: A, 744, 560-569, 2019.
15. MA Majeed Khan, Sushil Kumar, Abdulaziz N Alhazaa, MA Al-Gawati, Modifications in structural, morphological, optical and photocatalytic properties of ZnO: Mn nanoparticles by sol-gel protocol, Materials Science in Semiconductor Processing, 67, 134-141, 2018.
16. Rayan Khalid, Abdulaziz N Alhazaa, MA Majeed Khan, Synthesis, characterization and properties of Mn-doped ZnO nanoparticles, Applied Physics A, 124-8, pp: 536, 2018.
17. M.A. Majeed Khan, Wasi Khan, Avshish Kumar, Abdulaziz N. Alhazaa, Plasma enhanced chemical vapour deposition growth and physical properties of single-walled carbon nanotubes, materials letters, 2018.
18. M.A. Majeed Khan, Sushil Kumar, Tansir Ahamad, Abdulaziz N. Alhazaa, Enhancement of photocatalytic and electrochemical properties of hydrothermally synthesized WO₃ nanoparticles via Ag loading, Journal of Alloys and Compounds 743, 2018, 485-493.
19. A. AlHazaa, M. Shar, A. Atieh and H. Nishikawa, Transient Liquid Phase bonding of magnesium alloy AZ31 using Cu coatings and Cu coatings with Sn interlayers, Metals, 8, 60, 2018.
20. Anas M. Atieh , Nathir A. Rawashdeh, Abdulaziz N. AlHazaa, Evaluation of Surface Roughness by Image Processing of a Shot-Peened, TIG-Welded Aluminum 6061-T6 Alloy: An Experimental Case Study,. Materials 11(5), 771, 2018.
21. Size and Shape Evolution of GaAsSb-Capped InAs/GaAs Quantum Dots: Dependence on the Sb Content. K Alshehri, A Salhi, N Ahamad Madhar, B Ilahi. Crystals 9 (10), 530 (2019).
22. Intersubband Optical Nonlinearity of GeSn Quantum Dots under Vertical Electric Field. M Baira, B Salem, N Ahamad Madhar, B Ilahi. Micromachines 10 (4), 243 (2019).
23. Investigation of GeSn/Ge quantum dots' optical transitions for integrated optics on Si substrate. M Baira, M Aljaghwani, B Salem, NA Madhar, B Ilahi. Results in Physics 12, 1732-1736 (2019).

24. Sputter deposited GeSn alloy: A candidate material for temperature sensing layers in uncooled microbolometers. M Abdel-Rahman, M Alduraibi, M Hezam, B Ilahi. *Infrared Physics & Technology* 97, 376-380 (2019).
25. Linear and nonlinear intersubband optical properties of direct band gap GeSn quantum dots. M Baira, B Salem, NA Madhar, B Ilahi. *Nanomaterials* 9 (1), 124 (2019).
26. Design of Strain-Engineered GeSn/GeSiSn Quantum Dots for Mid-IR Direct Bandgap Emission on Si Substrate
27. R Al-Saigh, M Baira, B Salem, B Ilahi. *Nanoscale research letters* 13 (1), 172 (2018).
28. Solar light induced antibacterial performance of TiO₂ crystallized glass ceramics. S Kumar, HS Kushwaha, VP Singh, R Vaish, B Ilahi, NA Madhar. *International Journal of Applied Glass Science* 9 (4), 480-486 (2018).
29. Porous Ba0.85Ca0.15Zr0.1Ti0.9O3 Ceramics for Pyroelectric Applications. M Sharma, VP Singh, S Singh, P Azad, B Ilahi, NA Madhar. *Journal of Electronic Materials* 47 (8), 4882-4891 (2018).
30. Thermal induced carrier's transfer in bimodal size distribution InAs/GaAs quantum dots. B Ilahi, K Alshehri, NA Madhar, L Sfaxi, H Maaref. *Results in Physics* 9, 904-905 (2018).
31. Ex-Situ Thermal Treatment Effects on the Temperature Dependent Carriers Dynamics in InAs/InGaAs/GaAs Quantum Dots. B Ilahi, L Sfaxi, N Madhar, H Maaref. *Crystals* 8 (5), 192 (2018).
32. The systemic effect of PEG-nGO-induced oxidative stress *in vivo* in a rodent model. Qura Tul Ain, Samina Hyder Haq , Abeer Alshammari , Moudhi Abdullah Al-Mutlaq and Muhammad Naeem Anjum, *Beilstein J. Nanotechnol.* 2019, 10, 901–911.
33. Dose-dependent cytotoxicity of polyethylene glycol loaded nano-graphene oxide in cultured cerebral cortical cells. Qura Tul Ain, Samina Hyder Haq, Abeer Al-Modlej, Abeer Alshammari, Shahzad Ahmed and Muhammad Naeem Anjum1, August 2019 . *Materials Research Express*, Volume 6, Number 10
34. Study of a saturation point to establish the doping density limit of silicon with graphene oxide. Qura Tul Aina, N. Banoa , Abeer Al-Modleja , Abeer Alshammaria , I. Hussaina , Muhammad Naeem Anjum. *Materials Science in Semiconductor Processing*,96,2019.116-121.
35. Effect of solvents on optical band gap of silicon-doped graphene oxide. Anjum, Qura Tul Ain , Abeer Al-Modlej, Abeer Alshammari and Muhammad Naeem. 2018 IOP Publishing Ltd, *Materials Research Express*, Volume 5, Number 3
36. Laref, Z. Hussain, S. Laref, J.T. Yang, Y. C. Xiong, and S. J. Luo. First principles examination of electronic structure and optical features of 4H-GaN1-xPx polytype alloys. *J. Phys. Chem. Solids* 115, 355 (2018).

37. Jianwei Wang, Weiwei Xu, Rui Wang, A. Laref, Xiaozhi Wu. Structural and electronic properties of 90° dislocations in silicon nanorods: A first-principles calculation. *Computational Materials Science* 149, 243 (2018).
38. S.O.Bazara, R. Alonizi and A. Laref. Monte Carlo simulation of photon transport for computing fluence rate in biological tissue. *J. Nanoelec & and Optoelec* 13, 1505 (2018).
39. Manal A. Awad, Leena Aljasem, Nawal A. Modkhali, Hajar Aldakheel Wadha. Alonizi, A. Laref, Khalid M. O. Ortashi and Awatif A Hendi. Graphene Oxide Nanoscrolls: Synthesis, Characterization, Optical, and Electrical Properties. *J. Nanoelec & and Optoelec* 14, 1 (2019).
40. A. Laref, M. Al-Enazi, H. R. Al-Qahtani, S. Laref, and Xiaozhi Wu. Impact of fluorine on organic cation for determining the electronic and optical properties of $\text{CH}_3\text{-xF}_x\text{NH}_3\text{PbI}_3$ ($x = 0, 1, 2, 3$) hybrid perovskites-based photovoltaic devices. *Sol En* 177, 517 (2019)
41. H. El-Ghtami, A. Laref, and S. Laref. Electronic and optical behaviors of methylammonium and formamidinium lead trihalide perovskite materials. *J. Mat.Sc. Mats. in Elec* 30, 711 (2019).
42. A.Laref , M.Alsagri, S.Laref, J.T.Yang, Y.C.Xiong, Shakeel Ahmad Khandy,
43. Relativistic effects on the electronic and optical characteristics of $\text{Cd}_{1-x}\text{Hg}_x\text{Te}$ alloys-based solar cell materials. *J. Sol. Chem and Phys* 129, 368 (2019).
44. Alanoud A. Aloufi, Zeyad A. Alahmed, A. Laref, and Hamad A. Albrithen. Strain effects on structural, electronic, and optical properties of BeO by DFT. *Mat. Res.Bull* 114, 52 (2019).
45. H.M.Huang, Z.Y.Jiang, J.T.Yang, Y.C.Xiong, Z.D.He, Z.W.Zhu, and A.Laref. First principles study of RbVF_3 : A spin gapless semiconductor under high pressure. *Chinese Jour of Phys* 58, 132 (2019)
46. N. Madkhali, H. Alqahtani, A. Haseeb, H. Albrithin, S. Alterary, and A. Laref. Systematic Investigation of the Electrochemical Properties of Natural Melanin for Various Electrode Cells. *J. Bio. Mat and Bioenergy* 13, 429 (2019).
47. N. Madkhali, H. R. Alqahtani, Seham Al-Terary, A. Laref, and A. Haseeb. The doping effect of Fe, Cu and Zn ions on the structural and electrochemical properties and the thermostability of natural melanin extracted from *Nigella sativa* L. *J. Mol. Liq* 285, 436 (2019).
48. Laref, M. Alsagri, Z.A. Alahmed, and S. Laref. First-principles analysis for the modulation of energy band gap and optical characteristics in HgTe/CdTe superlattices. *RSC Adv* 9, 16390 (2019).
49. Laref, M. Alsagri, Syed Muhammad Alay-e-Abbas, F. Barakat, S. Laref, H. M. Huang, Y. C. Xiong, J. T. Yang, and Xiaozhi Wu. Impact of phosphorous and sulphur

- substitution on Dirac cone modification and optical behaviors of monolayer graphene for nano-electronic devices *Appl.Sur.Sc* 489, 358 (2019).
50. N. Madkhali, H. R. Alqahtani, Seham Al-Terary, A. Laref, and A. Haseeb. Control of optical absorption and fluorescence spectroscopies of natural melanin at different solution concentrations. *Optical and Quantum Elec* 51, 227 (2019).
 51. A. Laref, N. Madkhali, H. R. Alqahtani, X. Z. Wu, and S. Laref. Electronic structures and optical spectroscopies of 3d-transition metals-doped melanin for spintronic devices application. *JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS* 491, 165513 (2019).
 52. Alodhayb, A., Khan, F., Etayash, H., & Thundat, T. (2020). Nanomechanical Calorimetric Infrared Spectroscopy using Bi-Material Microfluidic Cantilevers. *Journal of The Electrochemical Society*, 167(3), 037504..
 53. Georghiou, P. E., Rahman, S., Alodhayb, A., Nishimura, H., Lee, J., Wakamiya, A., & Scott, L. T. (2018). Calixazulenes: azulene-based calixarene analogues—an overview and recent supramolecular complexation studies. *Beilstein journal of organic chemistry*, 14(1), 2488-2494.
 54. Liu, Jun, Feifei Liu, Rima Bao, Keren Jiang, Faheem Khan, Zhi Li, Huihui Peng, James Chen, Abdullah Alodhayb, and Thomas Thundat. "Scaled-up Direct-Current Generation in MoS₂ Multilayer-Based Moving Heterojunctions." *ACS applied materials & interfaces* 11, no. 38 (2019): 35404-35409.
 55. Islam, Md Monarul, Xing Feng, Shofiqur Rahman, Paris E. Georghiou, Taisuke Matsumoto, Junji Tanaka, Abdullah Alodhayb, Carl Redshaw, and Takehiko Yamato. "Synthesis, Structures and Lewis-Acid-Induced Isomerization of 8-Methoxy [2.2] metaparacyclophanes and a DFT Study." *Chemistry Select* 4, no. 13 (2019): 3630-3635.
 56. Islam, Md Monarul, Chuan-Zeng Wang, Xing Feng, Shofiqur Rahman, Paris E. Georghiou, Abdullah Alodhayb, and Takehiko Yamato. "Synthesis, Structures and DFT Computational Studies of [3.1. 1] Metacyclophanes Containing Benzofuran Rings." *ChemistrySelect* 3, no. 48 (2018): 13542-13547.
 57. Mazhar Mehmood, Syed Mansoor Ali, Shahid M Ramay, Muhammad Ali Shar, MS AlGarawi Annealing induced defects in ZnO nanostructures, *Applied Physics A*, 125, 8, p-528
 58. Aneeqa Masood, Zahid Shoukat, AR Rehman, Zohaib Shahid, Ayesha Chadury, Asif Mahmood, Shahid Ramay, Aamir Razaq, Nickel hydroxide and lignocelluloses fibers based flexible paper electrodes for energy storage applications, August 2019, Volume 30, Issue 15, pp 14772–14780.
 59. Muhammad Waseem Ashraf, Shahzadi Tayyaba, Syed Mansoor Ali, Shahid M Ramay, Murtaza Saleem, BiFeO₃ and La doped BiFeO₃ nano-particles decorated anodic Al₂O₃ porous template fabricated with two step anodization, *Materials Letters*, Volume 244, 1 June 2019, Pages 115-118.

60. Anees A Ansari, Naushad Ahmad, Manawwer Alam, Syed F Adil, Shahid M Ramay, Abdulrahman Albadri, Ashfaq Ahmad, Abdullah M Al-Enizi, Basel F Alrayes, Mohamed E Assal, Abdulrahman A Alwarthan, *Scientific Reports* volume 9, Article number: 7747 (2019).
61. Shahid Atiq, Ghulam M Mustafa, Shahzad Naseem, Syed Kumail Abbas, Shahid M Ramay, Asif Mahmood, Magneto-dielectric and ferroelectric tunability of multifunctional Ce-substituted neodymium zirconate pyrochlores, *Materials Letters*, Volume 243, 15 May 2019, Pages 21-25.
62. Q Mahmood, M Rashid, NA Noor, M Gul Bahar Ashiq, Shahid M Ramay, Asif Mahmood, Opto-electronic and thermoelectric properties of MgIn₂X₄ (X= S, Se) spinels via ab-initio calculations, *Journal of Molecular Graphics and Modelling*, Volume 88, May 2019, Pages 168-173.
63. Hafiz Muhammad Tahir Farid, Ishtiaq Ahmad, Irshad Ali, Shahid M Ramay, Asif Mahmood, Study of spinel ferrites with addition of small amount of metallic elements, *Journal of Electroceramics* April 2019, Volume 42, Issue 1–2, pp 57–66.
64. Tahir Iqbal, M Irfan, Shahid M Ramay, Hamid M Gaithan, Asif Mahmood, Murtaza Saleem, Investigations on ZnO/polymer nanocomposite thin film for polymer based devices, Published 10 April 2019 *Materials Research Express*, Volume 6, Number 7.
65. Q Mahmood, Bakhtiar Ul Haq, M Yaseen, Shahid M Ramay, Muhammad Gul Bahar Ashiq, Asif Mahmood, The first-principle study of mechanical, optical and thermoelectric properties of SnZrO₃ and SnHfO₃ for renewable energy applications, *Solid State Communications* Volume 292, April 2019, Pages 17-23.
66. Syed Mansoor Ali, Shahid Mehmood Ramay, Naeem Ur Rehman, Turki S ALKhuraiji, Muhammad Ali Shar, Asif Mahmood, Ather Hassan, Muhammad Riaz, Investigation of gamma irradiation effects on the properties of CdS/p-Si heterostructure, *Materials Science in Semiconductor Processing* Volume 93, April 2019, Pages 44-49.
67. Muhammad Rashid, Q Mahmood, Faizan Babar, Shahid M Ramay, Asif Mahmood, Study of mechanical, electronic and optical properties of PbZrO₃ and PbHfO₃; DFT approach, Published 27 March 2019 *Materials Research Express*, Volume 6, Number 6.
68. Shahid Atiq, Muhammad Faizan, Ali Haider Khan, Asif Mahmood, Shahid M Ramay, Shahzad Naseem, Co-existence of magnetic and electric ferroic orders in La-substituted BiFeO₃, *Results in Physics* Volume 12, March 2019, Pages 1269-1275.
69. Shahid M Ramay, Asif Mahmood, Hamid M Ghaithan, Nasser S Al-Zayed, Adnan Aslam, Abdullah Murtaza, Nisar Ahmad, Saadat A Siddiqi, Murtaza Saleem, Magnetron sputtered Dy₂O₃ with chromium and copper contents for antireflective thin films with enhanced absorption, *Journal of Rare Earths* Volume 37, Issue 9, September 2019, Pages 989-994.

70. Q Mahmood, M Hassan, KC Bhamu, M Yaseen, SM Ramay, A Mahmood, Density functional theory-based study of the magnetic and optical properties of PbMO sub (3)(M= Cr, Fe) using the modified BeckeJohnson mBJ functional, *Journal of Physics and Chemistry of Solids.* 128; 2019; 275-282.
71. Q Mahmood, M Hassan, SHA Ahmad, KC Bhamu, A Mahmood, SM Ramay, Study of electronic, magnetic and thermoelectric properties of AV (2) O(4) (A= Zn, Cd, Hg) by using DFT approach, *Journal of Physics and Chemistry of Solids.* 128; 2019; 283-290.
72. V Masilamani, Nasser Alarif, W Aslam Farooq, Muhammad Atif, Shahid Ramay, Hayat Saeed Althobaiti, Saqib Anwar, Ibrahim Elkhedr, MS AlSalhi, Bassam A Abuamarah, Physical Characteristics of the Massive Meteorite of Saudi Empty Quarter, Petrogenesis and Exploration of the Earth's Interior pp 75-78 .
73. Khalil Ahmed, Farah Kanwal, Shahid Ramay, Shahid Atiq, Rabia Rehman, Syed Ali, Nasser Alzayed, Synthesis and Characterization of BaTiO₃/Polypyrrole Composites with Exceptional Dielectric Behaviour, *Polymers* 2018, 10(11), 1273.
74. Salma Waseem, Safia Anjum, Lubna Mustafa, Rehana Zia, Shahid Ramay, Effects of Fe and Co Co-doping on Structural, Magnetic, and Optical Properties of Ti {sub 0.9} Fe {sub 0.1- x} Co {sub x} O {sub 2} Magnetic Semiconductors, *Journal of Superconductivity and Novel Magnetism*, Volume 31 Issue, 11, 2018.
75. Syed Mansoor Ali, Shahid Mehmood Ramay, Muhammad Hammad Aziz, MS AlGarawi, SS AlGhamd, Asif Mahmood, Turki S Alkhuraiji, Shahid Atiq, Efficiency enhancement of perovskite solar cells by incorporation of CdS quantum dot through fast electron injection, *Organic Electronics* Volume 62, November 2018, Pages 21-25.
76. Salma Waseem, Safia Anjum, Lubna Mustafa, Rehana Zia, Shahid Ramay, Effects of Fe and Co Co-doping on Structural, Magnetic, and Optical Properties of Ti0.9Fe0.1-xCoxO₂ Magnetic Semiconductors, *Journal of Superconductivity and Novel Magnetism*, November 2018, Volume 31, Issue 11, pp 3657–3666.
77. Saad Tariq, Saher Saad, M Imran Jamil, SM Sohail Gilani, Shahid Mahmood Ramay, Asif Mahmood, Ab initio study on half-metallic, electronic and thermodynamic attributes of LaFeO₃, *The European Physical Journal Plus*, March 2018.
78. Safeera Zaineb, Shahid Atiq, Asif Mahmood, Shahid M Ramay, Saira Riaz, Shahzad Naseem, Thermal tuning of electrical and dielectric characteristics of Mn-doped Zn0.95Fe0.05O dilute magnetic semiconductors, *Journal of Materials Science: Materials in Electronics*, March 2018, Volume 29, Issue 5, pp 3943–3951.
79. Ali Haider Khan, Shahid Atiq, Asif Mahmood, Shahid M Ramay, S Kumail Abbas, Shahzad Naseem, Optimisation of giant magnetoresistance in Mn-substituted BiFeO₃ for low field sensors, *Ceramics International*, Volume 44, Issue 12, 15 August 2018, Pages 14677-14685.

- 80.** Kalsoom Bibi, Irshad Ali, Muhammad Tahir Farid, Asif Mahmood, Shahid M Ramay, Khuram Ali, Electric and dielectric properties of ytterbium substituted spinel ferrites, Journal of Materials Science: Materials in Electronics, March 2018, Volume 29, Issue 5, pp 3744–3750.
- 81.** Huma Malik, Muhammad Azhar Khan, Altaf Hussain, Muhammad Farooq Warsi, Asif Mahmood, Shahid M Ramay, Structural, spectral, thermal and dielectric properties of Nd-Ni co-doped Sr-Ba-Cu hexagonal ferrites synthesized via sol-gel auto-combustion route, Ceramics International, Volume 44, Issue 1, January 2018, Pages 605-612.
- 82.** Saad Tariq, M Imran Jamil, Azeem Sharif, Shahid Mahmood Ramay, Hasnain Ahmad, Noor ul Qamar, Bashir Tahir, Exploring structural, electronic and thermo-elastic properties of metallic AMoO₃ (A = Pb, Ba, Sr) molybdates, Applied Physics A, January 2018.
- 83.** B Sabir, NA Noor, M Rashid, Fasih Ud Din, Shahid M Ramay, Asif Mahmood, Bandgap engineering to tune the optical properties of Be \times Mg_{1-x} X (X= S, Se, Te) alloys, Chinese Physics B, Volume 27, Number 1.
- 84.** Q Mahmood, M Yaseen, KC Bhamu, A Mahmood, Y Javed, SM Ramay, Magnetism, optical, and thermoelectric response of CdFe₂O₄ by using DFT scheme, Chinese Physics B. 27(3); 2018; ArticleID_037103.
- 85.** M Yaseen, Q Mahmood, Shahid M Ramay, I Ali, MY Naz, Asif Mahmood, The First-Principle Study of the Electronic Structure, Ferromagnetic and Thermoelectric Properties of Spinel Alloy FeAl₂O₄ Using mBJ Functional Approach, Journal of Superconductivity and Novel Magnetism, May 2018, Volume 31, Issue 5, pp 1435–1441
- 86.** Muhammad Azhar Khan, Farhat Hussain, Muhammad Rashid, Asif Mahmood, Shahid M Ramay, Abdul Majeed, Structural elucidation and magnetic behavior evaluation of Cu-Cr doped BaCo-X hexagonal ferrites, Journal of Magnetism and Magnetic Materials Volume 452, 15 April 2018, Pages 73-79.
- 87.** Maria Yousaf Lodhi, Muhammad Azhar Khan, Majid Niaz Akhtar, Muhammad Farooq Warsi, Asif Mahmood, Shahid M Ramay, Role of Nd-Ni on structural, spectral and dielectric properties of strontium-barium based nano-sized X-type ferrites, Ceramics International, Volume 44, Issue 3, 15 February 2018, Pages 2968-2975.
- 88.** HMT Farid, I Ahmad, I Ali, A Mahmood, SM Ramay, Structural and dielectric properties of copper-based spinel ferrites, The European Physical Journal Plus 133 (2), 41.
- 89.** Syed Adeel Abbas, Muhammad Rashid, Muhammad Ayub Faridi, Muhammad Bilal Saddique, Asif Mahmood, Shahid Muhammad Ramay, Systematic study of the elastic, optoelectronic, and thermoelectric behavior of MRh₂O₄ (M= Zn, Cd) based

on first principles calculations, Journal of Physics and Chemistry of Solids, Volume 113, February 2018, Pages 157-163.

90. Muhammad Shakil Shah, Khuram Ali, Irshad Ali, Asif Mahmood, Shahid M Ramay, Muhammad Tahir Farid, Structural and magnetic properties of praseodymium substituted barium-based spinel ferrites, Materials Research Bulletin, Volume 98, February 2018, Pages 77-82.
91. Muhammad Haris, Shahid Atiq, Syed Mustansar Abbas, Asif Mahmood, Shahid Mahmood Ramay, Shahzad Naseem, Acetylene black coated V₂O₅ nanocomposite with stable cyclability for lithium-ion batteries cathode, Journal of Alloys and Compounds, Volume 732, 25 January 2018, Pages 518-523