

# Published Papers (in the last two years) of Energy & Environment Physics Group

## ISI Publications (2018- 2019)

1. S.M. El-Bashir, M. S. AlSalhi, F. Al-Faifi, W. K. Alenazi. "Spectral Properties of PMMA Films Doped by Perylene Dyestuffs for Photosensitive Greenhouse Cladding Applications", *Polymers* 11(2019)494.
2. S.M. El-Bashir, "Coumarin-doped PC/CdSSe/ZnS nanocomposite films: A reduced self-absorption effect for luminescent solar concentrators," *Journal of Luminescence* 206(2019)426.
3. O. M. Yanchuk, O. V. Marchuk, I. A. Moroz, O. A. Vyshnevskiy, A. M. El-Naggar, A. A. Albassam, I. V. Kityk, P. Czaja, "*Femtosecond laser stimulated anisotropy of electrolytically produced CdS polymer nanocomposites*", *Journal of Materials Science: Materials in Electronics* (2019) 30:17741–17746
4. Shuaihua Zhang, Jiayu Wang, Nagy L. Torad, Wei Xia, Muhammad Aamir Aslam, Yusuf Valentino Kaneti, Zejun Ding, Bo Da, Zexing Cai, Amanullah Fatehmulla, Abdullah M. Aldhafiri, W. Aslam Farooq, Jing Tang, Xin Wang, Yoshio Bando, Yusuke Yamauchi, Rational Design of Nanoporous MoS<sub>2</sub>/VS<sub>2</sub> Heteroarchitecture for Ultrahigh Performance Ammonia Sensors, *Small* 2019, 1901718.
5. Peng Mei, Yusuke Yamauchi, Malay Pramanik, Amanullah Fatehmulla, Abdullah M. Aldhafiri, W. Aslam Farooq, Yoshio Bando, Muhammad J. A. Shiddiky, Yusuf Valentino Kaneti, Jianjian Lin, Yena Kim, Hard-templated preparation of mesoporous cobalt phosphide as an oxygen evolution electrocatalyst, *Electrochemistry Communications* 104 (2019) 106476.
6. Mohamed Barakat Zakaria, Victor Malgras, Takahiro Nagata, Jeonghun Kim, Yoshio Bando, Amanullah Fatehmulla, Abdullah M. Aldhafiri, W. Aslam Farooq, Yohei Jikihara, Tsuruo Nakayama, Yusuke Yamauchi, Jianjian Lin, Gold nanoparticles anchored on mesoporous zirconia thin films for efficient catalytic oxidation of carbon monoxide at low temperatures, *Microporous and Mesoporous Materials*, Volume 288, 1 November 2019, 109530
7. Alowasheer Azhar, Mohamed B. Zakaria, Jeonghun Kim, Jongbeom Na, Yusuf Valentino Kaneti, Amanullah Fatehmulla, Abdullah M. Aldhafiri, W. Aslam Farooq, Yoshio Bando, Yusuke Yamauchi and Jianjian Lin, Single Crystal Growth of Two-Dimensional Cyano-Bridged Coordination Polymer of [Co(H<sub>2</sub>O)<sub>2</sub>Ni(CN)<sub>4</sub>].4H<sub>2</sub>O Using Trisodium Citrate Dihydrate, *BCSJ* 2019- Vol. 92, No.7, pp. 1263 – 1267

8. Shunsuke Tanaka, Mostafa Kamal Masud, Yusuf Valentino Kaneti, Muhammad J. A. Shiddiky, Amanullah Fatehmulla, Abdullah M. Aldhafiri, W. Aslam Farooq, Yoshio Bando, Md. Shahriar A. Hossain, and Yusuke Yamauchi, Enhanced Peroxidase Mimetic Activity of Porous Iron Oxide Nanoflakes, *ChemNanoMat* 2019, 5, 506-513.
9. A.M. El-Naggar, K. Ozga, A.A. Albassam, G. Lakshminarayana” Laser operation by kesterite chalcogenide nanocrystals”, *Optik - International Journal for Light and Electron Optics* 176 (2019) 202–205.
10. A.M. El-Naggar, A.A. Albassam, G. Lakshminarayana, G. Myronchuk” PbO–Bi<sub>2</sub>O<sub>3</sub>–Ga<sub>2</sub>O<sub>3</sub>–BaO glass nanocomposites as promising materials for elasto-opticity”, *Optik - International Journal for Light and Electron Optics* 181 (2019) 368–371.
11. A.M. El-Naggar, A.A. Albassam, G. Lakshminarayana, G. Myronchuk, “ Laser-stimulated elasto-opticity in nanocrystalline CdCl<sub>0.5</sub>J<sub>0.5</sub> layers”, *Mater. Res. Express* 6 (2019) 045001.
12. N. Bano, I. Hussain, A.M. EL-Naggar, A.A. Albassam, “Exploring the fluorescence properties of reduced graphene oxide with tunable device performance”, *Diamond & Related Materials* 94 (2019) 59–64.
13. N. Bano, I. Hussain, A. M. EL-Naggar, A. A. Albassam, “ Reduced graphene oxide nanocomposites for optoelectronics applications”, *Applied Physics A* (2019) 125:215
14. A.M. El-Naggar, A.A. Albassam, G. Lakshminarayana, P. Czaja, G. Myronchuk, M. Matusiewicz, I.V. Kityk, M. Piasecki,” Laser-induced gratings in Ag<sub>3</sub>As<sub>3</sub>S<sub>3</sub> semiconductors”, *Physica B: Condensed Matter* 569 (2019)36-39
15. Reem AL-Wafi, Attieh A. Al-Ghamdi, Rashida Jafer, Awatif A. Al-Judaibi, Maryam A. Al-Ghamdi, I. S. Yahia, Obaid Albulym & A. M. El-Naggar,” Rapid synthesis of cesium-doped hydroxyapatite nanorods: characterisation and microbial activity”, *Advances in applied ceramics* 118:6 (2019) 340-350.
16. C.T. Chen, C.V. Nguyen, Z.Y. Wang, Y. Bando, Y. Yamauchi, M.T.S. Bazziz, A. Fatehmulla, W.A. Farooq, T. Yoshikawa, T. Masuda, K.C.W. Wu, Hydrogen Peroxide Assisted Selective Oxidation of 5-Hydroxymethylfurfural in Water under Mild Conditions, *Chemcatchem*, 10 (2018) 361-365.
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18. N. Abdullah, M.S.A. Hossain, K. Konstantinov, H. Tanabe, M. Matsuura, K. Maekawa, A. Fatehmulla, W.A. Farooq, M.T. Islam, Y. Bando, Y.V. Kaneti, Y. Yamauchi, Tuning Wall Thicknesses in Mesoporous Silica Films for Optimization of Optical Anti-

Reflective Properties, *Journal of Nanoscience and Nanotechnology*, 18 (2018) 100-103.

19. A. M. El-Naggar, A.A. Albassam, G.L. Myronchuk, O.V. Zamuruyeva, I.V. Kityk, P. Rakus, O.V. Parasyuk, J. Jędryka, V. Pavlyuk, M. Piasecki, "Photoconductivity and laser operated piezoelectricity the Ag-Ga-Ge-(S,Se) crystals and solid solutions", *Materials Science in Semiconductor Processing* 86 (2018) 101–110.
20. A.M. El-Naggar, A.A. Albassam, J. Jedryka, A. Wojciechowski, "Novel temperature operated electrooptical materials based on K<sub>2</sub>ZnCl<sub>4</sub>: PVA polymer nanocomposites", *Materials Letters* 228 (2018) 172–174.
21. O.Y. Khyzhun, V.S. Babizhetskyy, I.V. Kityk, G.L. Myronchuk, J. Jędryka, G. Lakshminarayana, V.O. Levytskyy, O.V. Tsisa, L.V. Piskach, O.V. Parasyuk, A.M. El Naggar, A.A. Albassam, M. Piasecki, Thallium indium germanium sulphide (TlInGe<sub>2</sub>S<sub>6</sub>) as efficient material for nonlinear optical application, *Journal of Alloys and Compounds* 735 (2018) 1694-1702.
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25. Asim Jilani, M.Sh. Abdel-wahabab, H.Y. Zahran, I.S. Yahia, Attieh A. Al-Ghamdi, Ahmed Alshahrie, A.M. El-Naggar, Chemical state analysis, optical band gap, and photocatalytic decolorization of cobalt-doped ZnO nanospherical thin films by DC/RF sputtering technique, *Optik* 164 (2018) 143–154.
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27. N. Bano, I. Hussain, M.Y. Soomro, A.M. EL-Naggar, A.A. Albassam, Solution processable inverted structure ZnO-organic hybrid heterojunction white LEDs, *Optical Materials* 79(2018) 322-326.

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29. A. Bouzidi, I.S. Yahia, W. Jilani, S.M. El-Bashir, S. AlFaify, H. Algarni, H. Guerhazi "Electronic conduction mechanism and optical spectroscopy of Indigo carmine as novel organic semiconductors", *Optical and Quantum Electronics* 50 (4)(2018)176.
30. S.M.El-Bashir,"Enhanced fluorescence polarization of fluorescent polycarbonate/zirconia nanocomposites for second-generation luminescent solar concentrators," *Renewable Energy*, 115 (2018) 269.
31. S.M. El-Bashir, "Physical Properties Nd<sup>3+</sup> Doped (SiO<sub>2</sub>-TiO<sub>2</sub>) Monolithic Glass for Photoresistor Applications", *Materials Research Express*, 4 (2017) 115203.
32. S.M. El-Bashir, N.M. Alwadai, N. AlZayed, "AC/DC electrical conduction and dielectric properties of PMMA/PVAc/C<sub>60</sub> down-shifting nanocomposite films", *J. of Molecular Structure*, 1154 (2018) 239.