

## DEPARTMENT OF PHYSICS, SSNCE (2018)

### JOURNAL PUBLICATIONS (2018)

1. Suganthi Muthusamy, **Julie Charles**, B. Renganathan, D. Sastikumar, "In situ growth of prussian blue nanocubes on polypyrrole nanoparticles: facile synthesis, characterization and their application as fiber optic gas sensor", Journal of Materials Science, vol. 53, no. 22, pp. 15401–15417, November 2018.
2. G. Annadurai, S. Masilla Moses Kennedy, V. Sivakumar, "Synthesis of novel Dy<sup>3+</sup> activated Ba<sub>2</sub>CaZn<sub>2</sub>Si<sub>6</sub>O<sub>17</sub> phosphors for white light-emitting diodes", Luminescence, vol. 33, pp. 521-527, May 2018
3. M. Jayachandiran, G. Annadurai, **S. Masilla Moses Kennedy**, "Photoluminescence properties of red emitting Ba<sub>3</sub>Bi<sub>2</sub>(PO<sub>4</sub>)<sub>4</sub>:Eu<sup>3+</sup> phosphor", Journal of Luminescence, vol. 201, pp. 196-202, September 2018
4. Balasubramanian M, Joshitha Chandrappan, B.S Sreeja, **Prita Nair**, "Multiport RF MEMS Switch for Satellite Payload Applications", Microsystem Technologies, Volume 24, Issue 5, pp 2379–2387, May 2018.
5. **Rajesh Narayana Perumal**, Venkatraj Athikesavan, **Prita Nair**, "Influence of lead titanate additive on the structural and electrical properties of Na<sub>0.5</sub>Bi<sub>0.5</sub>TiO<sub>3</sub>-SrTiO<sub>3</sub> piezoelectric ceramics", Ceramics International, vol.44, Issue 11,, pp. 13259-13266, August 2018
6. S. Aparna, N. Elakhya, G. Gopal, **P. Rajesh**, and P. Ramasamy, Influence of polyaniline in polyaniline-tin oxide nanocomposite as counter electrode for dye sensitized solar cells. Optik, 157, pp.1219-1226.
7. G. Babu Rao, **P. Rajesh**, and P. Ramasamy. "Effect of amaranth dye on the growth and properties of conventional and SR method grown KAP single crystals." In American Institute of Physics Conference Series, vol. 1942, no. 10. 2018.
8. R.Ravisankar,N.Harikrishnan,**A.Chandrasekaran**,M. SureshGandhi,R.Alagarsamy. Data on heavy metal and magnetic relationships in coastal sediments from South East Coast of Tamilnadu, India Data in Brief , Volume.16, February 2018, Pages 392-400.
9. M. Tholkappian, R. Ravisankar, **A. Chandrasekaran**, J. Prince Prakash Jebakumar, K.V. Kanagasabapathy, M.V.R. Prasad, K.K. Satapathy. Assessing heavy metal toxicity in sediments of Chennai Coast of Tamil Nadu using Energy Dispersive X-Ray Fluorescence Spectroscopy (EDXRF) with statistical approach.Toxicology Reports.Volume 5,February 2018, Pages 173- 182.

10. N. Harikrishnan, **A. Chandrasekaran**, R. Ravisankar, , R. Alagarsamy Statistical Assessment to Magnetic Susceptibility and Heavy Metal Data for Characterizing the Coastal Sediment of East Coast of Tamilnadu, India. Applied Radiation and Isotopes. Volume 135, May 2018, Pages 177-183.
11. N. Harikrishnan, R. Ravisankar, **A. Chandrasekaran**, M. Suresh Gandhi, P. Vijayagopal, Rohit Mehra. Assessment of gamma radiation and associated radiation hazards in coastal sediments of south east coast of Tamilnadu, India with statistical approach. Ecotoxicology and Environmental Safety. Volume 162, October 2018, Pages 521-528
12. **Rajesh Narayana Perumal**, G. Subalakshmi, C.K. Jayasankar, “Synthesis and photoluminescence properties of  $\text{Sr}_{0.95}\text{Ba}_{0.05}\text{La}_{2-x}\text{O}_4:\text{xRE}^{3+}$  (RE=Eu,Er,Ce and Ho) for WLEDs application”, Journal of Alloys and Compounds, Vol 732, no 25, pp. 1-8, January 2018.
13. **Rajesh Narayana Perumal**, G. Subalakshmi, “Investigations on Ho-TiO<sub>2</sub> nanoparticles synthesized by precipitation method for optical applications”, Optik - International Journal for Light and Electron Optics, Vol 154, pp. 491-496, February 2018.
14. **Rajesh Narayana Perumal**, G. Subalakshmi, E. Varadarajan, S. Sadhasivam, G. Vinitha, “Optical properties of  $\text{Eu}^{3+}$  activated  $\text{SrLa}_2\text{O}_4$  red-emitting phosphors for WLED applications”, Journal of Materials Science: Materials in Electronics, Vol 29, pp. 2638 – 2644, February 2018.
15. S. Siva Bala Solanki, **N.P. Rajesh**, T. Suthan, “Growth and characterization of benzyl 4-hydroxybenzoate single crystal by vertical Bridgman technique for optical applications”, Optics & Laser Technology, Vol 103, 163-169, July 2018.
16. **Narayana Perumal Rajesh**, V. Jabha Ananthi, G. Vinitha, C.K. Jayasankar, “Investigations on structural, optical and electrical properties of phenyl benzoate single crystal”, Optics and Laser Technology, Vol 104 , pp. 43-48, August 2018.
17. T. Arivazhagan, S. Siva Bala Solanki, **Narayana Perumal Rajesh**, “Investigation on crystal growth and characterization of organic nonlinear optical triphenylmethane single crystal by vertical Bridgman technique”, Journal of Crystal Growth, Volumes 496–497, pp. 43 – 50, August–September 2018.
18. **Rajesh Narayana Perumal**, G. Subalakshmi, Aloysius Xavier Lopez, “Synthesis and multi-colour luminescence spectra of  $\text{RE}^{3+}$  ( $\text{RE}^{3+} = \text{Eu}^{3+}, \text{Sm}^{3+}, \text{Dy}^{3+}, \text{Eu}^{3+}/\text{Sm}^{3+}/\text{Dy}^{3+}$ ) doped  $\text{BiLa}_2\text{O}_4$  phosphors”, Optik, Vol 170 , pp. 125 – 131, October 2018.
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20. Subramaniyan @ Raja, R, **Anandha babu, G,** & Ramasamy, P 2018, ‘Studies on the growth and characterization of an organic single crystal -1,3,5- Triphenyl benzene’, Materials Research Innovations, Vol. 149-150, pp. 224-229, January 2018.

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1. Suganthi Muthusamy, **Julie Charles**, M.S. Michael, K. Shree Kesavan, “Facile synthesis and characterization of ternary polypyrrole/prussian-blue/carbon black hybrid nanocomposite for supercapacitor applications”, presented in International Conference on Advanced Nanomaterials for Energy, Environment and Healthcare Applications (ANEH-2018), KSR College of Arts and Science for Women, Tiruchengode, Namakkal, August 31- September 1, 2018.
2. M. Jayachandiran, G. Annadurai, **S. Masilla Moses Kennedy**, “Synthesis and optical properties of  $Ba_3Bi_2(PO_4)_4:Dy^{3+}$  for white light emitting diodes”, NIIST, Trivandrum, February 14-16, 2018.
3. E. Annie Rathnakumari, **S. Masilla Moses Kennedy**, “Synthesis and luminescence properties of  $Dy^{3+}$  activated  $NaCaBi_2(PO_4)_3$  Phosphor for white light emitting diodes”, NIIST, Trivandrum, February 14-16, 2018.
4. P. Balakrishnan, **S. Masilla Moses Kennedy**, “Photoluminescence properties of  $Eu^{2+}$  codoped  $Tb^{3+}$  in  $K_2Ba_7Si_{16}O_{40}$  phosphors for WLED applications”, NIIST, Trivandrum, February 14-16, 2018.
5. Dhakshinamoorthy K, **Prita Nair**, “Modeling and Application of MEMS Micro Mirrors for Periodic Pattern Generation”, International Conference on Advanced Semiconductor Materials and Devices, Indian Institute of Chemical Technology, Hyderabad, 8-10 March, 2018.
6. Dhakshinamoorthy K, **Prita Nair**. “Modeling & Applications of 3D MEMS Mirror in Lithography, Wide Band Optical Wireless Communication”, ISSS National Conference on Smart MEMs, Smart Materials, Structures and Systems , October 4-6, Thiagarajar College of Engineering, Madurai, 2018.
7. Resmi K.S, **Prita Nair**, “Optimization of electrochemical etching for the realization of submicron pores in P-doped silicon”, ISSS National Conference on Smart MEMs, Smart Materials, Structures and Systems , October 4-6, Thiagarajar College of Engineering, Madurai , 2018.
8. Senthilkumar Chandran, **Rajesh Paulraj**, P. Ramasamy Effect of cobalt doping on the structural, optical, thermal, dielectric and mechanical properties of sodium acid phthalate hemihydrate single crystal, 22<sup>nd</sup> National seminar on crystal Growth and Applications, Department of Physics, Sacred heart College, Tirupathur, 29-31 January, 2018.

9. G. Iyappan, P. **Rajesh**, P. Ramasamy, A study on the growth kinetics and optical properties of KDP:ADP mixed crystals, 22<sup>nd</sup> National seminar on crystal Growth and Applications, Department of Physics, Sacred heart College, Tirupathur, 29-31 January, 2018.
10. G. Babu Rao, P. **Rajesh**, P. Ramasamy, Influence of Xylenol orange tetrasodium salt on the growth and properties of KAP single crystal, 22<sup>nd</sup> National seminar on crystal Growth and Applications, Department of Physics, Sacred heart College, Tirupathur, 29-31 January, 2018.
11. Senthilkumar Chandran, **Rajesh Paulraj**, P. Ramasamy Determination of nucleation kinetics, crystal growth, structural, Hirshfeld surface, thermal, optical, mechanical and laser damage threshold properties of a semi-organic single crystal: Lithium hydrogen phthalate dehydrate, National Conference on Processing and Fabrication of advanced Materials SSNCE, March 1-2, 2018.
12. G. Iyappan, P. **Rajesh**, P. Ramasamy, Investigation on the growth kinetics and optical properties of KDP:ADP (85:15) mixed crystals, National Conference on Processing and Fabrication of advanced Materials SSNCE, March 1-2, 2018.
13. S. Chinnasami.s, Senthilkumar Chandran, **Rajesh Paulraj**, P. Ramasamy Growth, Hirshfeld surfaces, spectral, quantum chemical calculations, photoacoustic and chemical etching analysis of nonlinear optical p-toluidine p-toluenesulfonate single crystal, National Conference on Processing and Fabrication of advanced Materials SSNCE, March 1-2, 2018.
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15. N. Elakhya, **Dr. P. Rajesh**, Dr. P. Ramasamy, Influence of variation in tin oxide crystallite size on the effectiveness of counter electrode for dye sensitized solar cells based on polyaniline –tin oxide nanocomposite, National Conference on Processing and Fabrication of advanced Materials SSNCE, March 1-2, 2018.
16. S. Aparna, P. **Rajesh**, P. Ramasamy, Effect of polyaniline concentration in polyaniline –Tin Oxide nanocomposite based counter electrode for dye sensitized solar cells, National Conference on Processing and Fabrication of advanced Materials SSNCE, March 1-2, 2018.
17. Gayatri Gopal, P. **Rajesh**, P. Ramasamy The efficiency of Pani-Tin Oxide nanocomposite used as counter electrode in dye sensitized solar cell with variation of PH, National Conference on Processing and Fabrication of advanced Materials SSNCE, March 1-2, 2018.
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  22. S. Chinnasami, Senthilkumar Chandran, **Rajesh Paulraj**, P. Ramasamy, Synthesis, growth, Hirshfeld surfaces, vibrational, optical and chemical etching studies of the nonlinear optical p-Toluidine p-Toluenesulfonate single crystal, DST-SERB National Level Conference (SREC – NMSE) Department of Physics and Chemistry, Sri Ramakrishna Engineering College, July 18-20, 2018.
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29. **A.Chandrasekaran** R.Ravisankar. Ground Water quality Assessment in some places of Kanchipuram district, Tamilnadu. International conference on Developments towards improvement of Radiological Surveillance at Nuclear Facilities and Environment BARC, Mumbai, January 16-20, 2018
30. **A.Chandrasekaran** Determination Of Gamma Ray Exposure Rate ( $E_r$ ) In Soils Of Yelagiri Hills, Tamilnadu. International Conference on Radiation Research: Impact on Human Health and Environment-2018 (ICRR-HHE 2018). University of Hyderabad, Hyderabad, INDIA, February 1-4, 2018.
31. **A.Chandrasekaran**, M.A. Neelakantan, V.Raja, R.Ravisankar. Carcinogenic and non-carcinogenic assessment of Uranium in Ground Water Samples of Kanchipuram District, Tamilnadu, India with statistical approach. International conference on Mathematical methods, Modeling and simulation in chemical sciences. SSN college of Engineering, Chennai. December 6-8, 2018
32. Durai Ganesh N.Harikrishnan **A.Chandrasekaran**, M.A.Neelakantan, V.Raja, R.Ravisankar. Measurement of Natural Uranium Concentration in Ground Water samples Around the Mountain Arunachala in Tiruvannamalai, Tamil Nadu. National Symposium on Environment. IIT Gandhinagar, Gujarat. December 13-15, 2018.