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List of Publications during last 5 years:

1. Promotional Effect of Cu₂S-ZnS Nanograins as a Shell Layer on ZnO Nanorod Arrays for Boosting Visible Light Photocatalytic H₂ Evolution, Kugalur Shanmugam Ranjith, Dharman Ranjith Kumar, Yun Suk Huh, Young-Kyu Han, Tamer Uyar, **Ramasamy Thangavelu Rajendra Kumar**, *The Journal of Physical Chemistry C*, 2020. IF: 4.309.
2. CdTe nanorods for nonenzymatic hydrogen peroxide biosensor and optical limiting applications M Manikandan, C Revathi, P Senthilkumar, S Amreetha, S Dhanuskodi, **RT Rajendra Kumar**, *Ionics*, 2019, pp(1-8). IF: 2.289
3. Glucose oxidase immobilized amine terminated multiwall carbon nanotubes/reduced graphene oxide/polyaniline/gold nanoparticles modified screen-printed carbon electrode for highly sensitive amperometric glucose detection, Debasis Maity, CR Minitha, **Materials Science and Engineering: C** 105, 110075. IF: 5.08
4. Hierarchical α -MnO₂ wrapped MWCNTs sensor for low level detection of p-nitrophenol in water, V Anbumannan, M Dinesh, **RT Rajendra Kumar**, K Suresh, *Ceramics International*, 2019, Vol.45, 23097-23103. IF: 3.45
5. Synthesis of triazine-based porous organic polymer: A new material for double layer capacitor, Stella Vargheese, **RT Rajendra Kumar**, Yuvaraj Haldorai, *Material Letters*, 2019, Vol.249, 53-56. IF: 3.019
6. Birnessite MnO₂ Decorated MWCNTs Composite as a Nonenzymatic Hydrogen Peroxide Sensor, Muthu Dinesh, Chinnasamy Revathi, Yuvaraj Haldorai, **Ramasamy Thangavelu Rajendra Kumar**, *Chemical Physics Letters*, 2019. IF: 1.901
7. Nitrogen-Implanted ZnO Nanorod Arrays for Visible Light Photocatalytic Degradation of a Pharmaceutical Drug Acetaminophen, Dharman Ranjith Kumar, Kugalur Shanmugam Ranjith, Yuvaraj Haldorai, Asokan Kandasami, **Ramasamy Thangavelu Rajendra Kumar**, *ACS Omega*, 2019, 4, 11973-11979. IF: 2.584
8. Swift heavy ion induced effects on structural, optical and photo-catalytic properties of Ag irradiated vertically aligned ZnO nanorod arrays, D Ranjith Kumar, KS Ranjith, LR Nivedita, K Asokan, **RT Rajendra Kumar**, *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, 2019, 450, 95-99. IF: 1.210

9. Highly sensitive amperometric detection of glutamate by glutamic oxidase immobilized Pt Nanoparticle decorated multiwalled carbon nanotubes (MWCNTs)/Polypyrrole composite, Debasis Maity, **R.T. Rajendra Kumar**, *Biosensors and Bioelectronics*, 130 (2019) 307–314. IF: 9.518

10. Tuning the electrical properties of graphene oxide by nitrogen ion implantation: Implication for gas sensing, CR Minitha, LR Nivedita, K Asokan, **R.T. Rajendra Kumar**, *Nucl. Instrum. Methods Phys. Res.*, doi.org/10.1016/j.nimb.2018.12.044. IF: [1.433](#)

11. Influence of Fe₃O₄ nanoparticles decoration on dye adsorption and magnetic separation properties of Fe₃O₄/rGO nanocomposites, CR Minitha, M Martina Susan Arachy, **R.T. Rajendra Kumar**, *Separation Science and Technology* 53 (14), 2159-2169. IF: 1.354

12. Polyaniline Anchored MWCNTs on Fabric for High Performance Wearable Ammonia Sensor, Debasis Maity and **R.T. Rajendra Kumar**, *ACS Sens.*, 2018, 3 (9), 1822–1830. IF: 6.944

13. Selective Methanol Detection of Pyrolysis Grown Multiwalled Carbon Nanotubes, Rajavel Krishnamoorthy, **R.T. Rajendra Kumar**, *Advanced Science Letters*, 24, 8, 2018, 5645-5650(6). IF: 1.253

14. Polyvinyl alcohol wrapped multiwall carbon nanotube (MWCNTs) network on fabrics for wearable room temperature ethanol sensor, D Maity, K Rajavel, **R.T. Rajendra Kumar**, *Sensors and Actuators B: Chemical* 261, 297-306. IF: 6.393

15. Evolution of Visible Photocatalytic Properties of Cu-Doped CeO₂ Nanoparticles: Role of Cu²⁺-Mediated Oxygen Vacancies and the Mixed-Valence States of Ce Ions, Kugalur Shanmugam Ranjith, Chung-Li Dong, Ying-Rui Lu, Yu-Cheng Huang, Chi-Liang Chen, Padmanapan Saravanan, Kandasami Asokan, and **R.T. Rajendra Kumar**, *ACS Sustainable Chem. Eng.* 6, 7, 8536-8546. IF: 6.97

16. One-Step Pyrolytic Synthesis of Multiwalled Carbon Nanotubes: The Role of Resupply of Carbon Species on the Quality Control, K Rajavel, P Saravanan, **R.T. Rajendra Kumar**, *Journal of Nanoscience and Nanotechnology* 18 (5), 3536-3542. IF: 1.354

17. Impact of oxygen functional groups on reduced graphene oxide-based sensors for ammonia and toluene detection at room temperature, CR Minitha, VS Anithaa, V Subramaniam, **R.T. Rajendra Kumar**, **ACS Omega** 3 (4), 4105-4112. IF: 2.584

18. Enhancement of magnetostrictive properties of Galfenol thin films, LR Nivedita, P Manivel, R Pandian, S Murugesan, NA Morley, K Asokan, **R.T. Rajendra Kumar**, **Journal of Magnetism and Magnetic Materials** 451, 300-304. IF: 2.683

19. Effective shell wall thickness of vertically aligned ZnO-ZnS core-shell nanorod arrays on visible photocatalytic and photo sensing properties, Kugalur Shanmugam Ranjith, Rutely Burgos Castillo, Mika Sillanpaa, **R.T. Rajendra Kumar**, **Applied Catalysis B: Environmental**, Volume 237, 5 December 2018, Pages 128-139. IF: 14.229

20. Swift heavy ion induced effects on structural, optical and photo-catalytic properties of Ag irradiated vertically aligned ZnO nanorod arrays, D. Ranjith Kumar, K. S. Ranjith, Nivedita L Raveendran, K. Askoo and **R.T. Rajendra Kumar**, **Nuclear Instruments and Methods in Physics Research Section B Beam Interactions with Materials and Atoms** [450, 95-99. IF: 1.210](#)

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22. Structural, optical, photocurrent and solar driven photocatalytic properties of vertically aligned samarium doped ZnO nanorod arrays, D Ranjith Kumar, KS Ranjith, **R.T. Rajendra Kumar**, **Optik**, 154 (2018) 115–125. IF: 1.914

23. Magnetite nanoparticles decorated reduced graphene oxide composite as an efficient and recoverable adsorbent for the removal of cesium and strontium ions, Cherukutty Ramakrishnan Minitha, Rahul Suresh, Ujjwal Kumar Maity, Yuvaraj Haldorai, Vijayakumar Subramaniam, Periasamy Manoravi, Mathew Joseph, **R.T. Rajendra Kumar**, **Ind. Eng. Chem. Res.** 57, 4, 1225-1232. IF: 3.375

24. Multifunctional ZnO Nanorod-Reduced Graphene Oxide Hybrids Nanocomposites for Effective Water Remediation: Effective Sunlight Driven Degradation of Organic Dyes and Rapid Heavy Metal Adsorption, K. S. Ranjith, P. Manivel, **R.T. Rajendra Kumar**, Tamer Uyar, **Chemical Engineering Journal**, (2017), 325, 588-600. IF: 8.355

25. Effect of samarium doping on structural, optical and magnetic properties of vertically aligned ZnO nanorod arrays DR Kumar, KS Ranjith, LR Nivedita, **R.T. Rajendra Kumar**, **Journal of Rare Earths** 35 (10), 1002-1007. IF: 2.846

26. In situ attachment and its hydrophobicity of size- and shape-controlled silver nanoparticles on fabric surface for bioapplication, K Rajavel, R Gomathi, R Pandian, **R.T. Rajendra Kumar**, **Inorganic and Nano-Metal Chemistry** 47 (8), 1196-1203.

27. Engineering Silicon to porous silicon nanowires by Metal Assisted Chemical Etching: Role of Ag size and electron scavenging rate on morphology control and mechanism, K. Rajkumar, R. Pandian, S. Amirthapandian and **R.T. Rajendrakumar**, **ACS Omega**, 2017, 2, 4540–4547. IF: 2.584

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30. Ultrasonic Assisted Synthesis of Superhydrophobic ZnO Nanowall Films, S. Sutha, **R.T. Rajendra Kumar**, **Bulletin of Materials Science**, Ms. No. BOMS-D-16-00952R1. IF: 1.264

31. Phase evolution and magnetic properties of DC sputtered Fe-Ga (Galfenol) thin films with growth temperatures, Nivedita L. Raveendran, R Pandian, S Murugesan, K Asokan, **R.T. Rajendra Kumar**, **Journal of Alloys and Compounds** 704, 420-424 (2017). IF: 4.175

32. Electro Catalytic Properties of α , β , γ , ϵ - MnO₂ and γ - MnOOH Nanoparticles: Role of Polymorphs on Enzyme Free H₂O₂ Sensing, C. Revathi, **R.T. Rajendra Kumar**, **Electroanalysis** 29, 1481-1489 (2015). IF: 2.691ss

33. High performance supercapacitor and non-enzymatic hydrogen peroxide sensor based on tellurium nanoparticles, M Manikandan, S Dhanuskodi, N Maheswari, G Muralidharan, C Revathi, **R.T. Rajendra Kumar**, G Mohan Rao, **Sensing and Bio-Sensing Research** 13, 40-48. IF: 1.012

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35. Regeneration of an efficient, solar active hierarchical ZnO flower photocatalyst for repeatable usage: controlled desorption of poisoned species from active catalytic sites, KS Ranjith, **R.T. Rajendra Kumar**, *RSC Advances* 7 (9), 4983-4992. IF: 3.049

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38.Surfactant free, simple, morphological and defect engineered ZnO nanocatalyst: Effective study on sunlight driven and reusable photocatalytic properties, KS Ranjith, **R.T. Rajendra Kumar**, *Journal of Photochemistry and Photobiology A: Chemistry*, (2016), Volume: 329, Pages: 35-45. IF: 3.261

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