



RAJESH GOVINDARAJ
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CAREER HISTORY

- **Investigator Post Doc (Fondecyt) – FCFM, University of Chile, Santiago, Chile.**
 - Job Description – Nanostructured Kesterite CZTS Anode material for Lithium Ion batteries.
 - Period – March 2019 to Till date.
- **Post Doc – (Millennium Nucleus Multimater), Santiago, Chile.**
 - Job Description – Nanostructured materials for Lithium Ion batteries.
 - Period – September 2018 to March 2019
- **Ph.D Research Fellow - Coimbatore Institute of Technology, India.**
 - Job Description - Synthesis and Characterization of CZTS Thin films for Solar Cell Application.
 - Period – January of 2013 to August 2018.
- **Exchange Research Fellow - (Indo - Norwegian Co-operation Program) Western Norway University of Applied Sciences, Bergen, Norway.**
 - Job Description - Nanostructured CZTS Thin films for solar cell Applications.
 - Period - (May - July 2015) and (April – July 2016)
- **Visiting Research Fellow - Bergen university college, Bergen, Norway.**
 - Job Description- synthesis and characterization of CZTS quantum dots.
 - Period - (October - December 2013).
- **Summer School Fellow - Banaras Hindu University, Varanasi, India.**
 - Job Description - Development and Characterization of Advanced Materials.
 - Period - February 22,2013 to March 14, 2013

- **Process Associate - Sterlite Technologies Limited, Dadra & Nagar Haveli, India.**
 - **Job Description - R&D Structured Data Cable.**
 - **Period - July 2011 to Feb 2012.**

EDUCATION

- **Ph.D. (Physics)** – Coimbatore Institute of Technology, Anna University, India. (2018).
- **M.Sc. (Physics)** - Bishop Heber College, Bharathidasan university, Tiruchirappalli. (2011).
- **B.Sc. (Physics)** - A.V.V.M Sri Pushpam college, Bharathidasan university. (2009).

PUBLICATIONS

1. **G. Rajesh**, N. Muthukumarasamy, S. Agilan, Dhayalan Velauthapillai, Kallol Mohanta, Sudip. K. Batabyal, “*Electrical Bistability of Sol-gel derived CZTS Thin films*” **Material Letters**, **220**, (2018), 285-288.
2. **G. Rajesh**, N. Muthukumarasamy, Dhayalan Velauthapillai, Kallol Mohantha, Sudip. K. Batabyal, “*Photo induced Electrical Bistability of Sputtered Deposited CdZnTe Thin films*”. **Material Research Express**, **5**, (2018) 026412.
3. **G. Rajesh**, N. Muthukumarasamy, Dhayalan Velauthapillai and Sudip.k. batabyal, “*Annealing induced Rapid Shape Transformation of CZTS nanorods based thin films*”, **Langmuir**, **33** (2017) 6151- 6158.
4. **G. Rajesh**, N. Muthukumarasamy, E. P. Subramaniam, M.R Venkatraman, V.Ragavendran, S. Agilan, M.Thambidurai, S.Velumani, Junsin Yi, Dhayalan Velauthapillai, “*Solution based Synthesis of high yield CZTS (Cu₂ZnSnS₄) spherical quantum dots*”. **Superlattices and Microstructures**, **77**(2015) 305-
5. **G. Rajesh**, N. Muthukumarasamy, E. P. Subramaniam, S. Agilan & Dhayalan Velauthapillai. “*Synthesis of Cu₂ZnSnS₄ thin films by dip coating method without sulphurization*”. **Journal of Sol-Gel Science and Technology**, **66** (2013) 288-292.
6. Thirumurugan Arun, T Kavin Kumar, R Udayabhaskar, Mauricio J Morel, **G Rajesh**, RV Mangalaraja, Ali Akbari-Fakhrabadi. “Size dependent magnetic and capacitive performance of MnFe₂O₄ magnetic nanoparticles” **Material Letters**, **276**, (2020), 128240.
7. Venkatraman Madurai Ramakrishnan, N.Muthukumarasamy, KristinKvamme, **G.Rajesh**, S.Agilan, Arivalagan Pugazhendhi, DhayalanVelauthapillai. “Performance of TiO₂ nanoparticles synthesized by microwave and solvothermal methods as photoanode in dye-sensitized solar cells (DSSC)” **International Journal of Hydrogen Energy**, **45** (2020),27036-27046.

8. R Sanjeev Kumar, V Veeravazhuthi, N Muthukumarasamy, M Thambidurai, M Elango, A Gnanaprakasam & **G Rajesh**. Effect of gadolinium doped ZnS nanoparticles: ferro magnetic photocatalyst for efficient dye degradation. **SN Applied Sciences**,1,(2019), 268.
9. PM Ponnusamy, S Agilan, N Muthukumarasamy, TS Senthil, **G Rajesh**, MR Venkatraman, Dhayalan Velauthapillai, “*Structural, optical and magnetic properties of undoped NiO and Fe-doped NiO nanoparticles synthesized by wet-chemical process*”. **Materials Characterization**, 114 (2016) 166-171.
10. E. P. Subramaniam, **G. Rajesh**, N. Muthukumarasamy, M.Thambidurai, Vijayshankar Asokan, Dhayalan Velauthapillai. “*Solar cells of Cu₂ZnSnS₄ thin films prepared by chemical bath deposition Method*”. **Indian journal of pure and applied Physics**, 52, (2014), 620-624.
11. E.P.Subramaniam, N. Muthukumarasamy, **G. Rajesh**, Dhayalan Velauthapillai & S.Agilan. **Synthesis of Cu₂ZnSnS₄ Nano Powder by Hydrothermal Method**. Asian Journal of Chemistry, 25,(2013),S191.

INTERNATIONAL CONFERENCES:

- Participated and presented a paper entitled “Solution processed Synthesis of nanostructured kesterite CZTS anode material for lithium - ion batteries” in **International conference on Low Dimensional Structures (LDS -2019)**,2-6 december 2019, **Puerto varas, Chile**.
- Participated and presented a paper entitled” *Cu₂ZnSnS₄ thin films solar cells prepared by Sol-gel deposition method*” in **International Conference on Advances in Functional Materials (ICAFM 2017)**, 6-8 January 2017, **Anna university, Chennai**.
- Participated and presented a paper entitled “*Microwave assisted synthesis of Cu₂ZnSnS₄ nanoparticles*” in **International Conference on Sustainable Energy Technologies (ICNFA 2015)**, 2-4, December 2015, **Department of Physics, Coimbatore Institute of Technology, Coimbatore**.
- Participated and presented a paper entitled “*Influence of solvent concentration on the properties of Kesterite CZTS nanoparticles*” in International Conference on Sustainable Energy Technologies (**ICSET 2014**), 11-13 December 2014, **Department of Physics, PSG College of Technology, Coimbatore**.

- **International conference on Nanomaterials for Frontier Applications** and Indo-Norwegian Workshop on **Advanced Materials for Solar Cell Applications (ICNFA 2013)**. Organized by Coimbatore Institute of Technology, Coimbatore, India in collaboration with Bergen University College of Applied Sciences, Norway.
- **International conference on Nanoscience and Nanotechnology (ICONN 2013)** Organized by the Department of Physics and Nanotechnology, SRM University, Chennai, India.
- **National Conference on Perspectives in Laser, Optics, Spectroscopy and Nano Science** Organized by the Department of Physics, Bishop Heber College, Trichy, India.

EXPERIENCE IN REVIEWING

- **Reviewer - INORGANIC CHEMISTRY (ACS Publications).**

SKILLS

- Hands on Experience in DC Magnetron Sputtering, Thermal Evaporation Unit, Spin Coating Unit, HALL EFFECT Measurement System, UV-Spectrophotometer, Fluorescence cha
- Knowledge in characterization viz. spectral analysis Scanning Electron Miscopy, Transmission Electron Microscopy, Atomic Force Microscopy, X-ray Photoelectron Spectroscopy, X-ray Diffraction and Raman Spectroscopy Analysis.

PERSONAL DETAILS

Date of Birth : 26.09.1988

Gender : Male

Nationality : Indian

Marital Status: Married

PERMANENT ADDRESS

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Dr. G. RAJESH

