

Name : **Dr. R. Chandramohan**

Designation : Research Advisor

Qualification : M.Sc., M.Phil., Ph.D., Post Doc

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Area of Specialization : Physics

Area of Research : Materials Science

Teaching Experience : 37 years



S. No.	Name of the Institution	Period of Service
1	Sree Sevugan Annamalai College	35 years
2	Vidhyaa Giri College of Arts and Science	2 years

#### **Publications (Significant Papers only)**

1. Kasinathan Kasirajan, Marimuthu Karunakaran, Murugesan Balaji, Samayanan Selvam, Yurong Cai, Rathinam Chandramohan, *Facile synthesis of highly biologically active chitosan functionalized 2D WS<sub>2</sub> nanocomposite anchored with palladium nanoparticles for antibacterial and anticancer activity: In-vitro biomedical evaluation*, Journal of Molecular Liquids Volume 335, pp 116582, 0167-7322, 0167-7322, August 2021

2. R Dilber Pushpitha, J Thirumalai, L Bruno Chandrasekar, K Gnanasekar, R Chandramohan, *Spin-resonant tunneling in in CdTe/Cd<sub>1-x</sub>MnxTe double-barrier heterostructure with zero external field: Effect of in-plane wave vector*, Physica E: Low-dimensional Systems and Nanostructures, (In Press) April 2021, 1386-9477, 1386-9477, (<https://doi.org/10.1016/j.physe.2021.114765>)
3. S Natarajan, R Chandramohan, *Conformal evolution of phantom dominated final stages of the universe in higher dimensions*, Canadian Journal of Physics, Volume 99 Issue 1, Pages 1-9, 0008-4204, April 2020.
4. N Shriethar, C Rathinam, *Conformal Cyclic Evolution of the Universe: a Loop Quantum Gravity Perspective*, International Journal of Theoretical Physics 59 (12), 3995-4012, 1572-9575, November 2020.
5. SJ Helen, R Chandramohan, *Influence of pure and cd, zn doped cuo thin films using spray pyrolysis technique*, PalArch's Journal of Archaeology of Egypt/Egyptology 17 (6), 9515-9522, 1567-214X, November 2020.
6. S Natarajan, R Chandramohan, R Swaminathan, *Conformal cyclic evolution of phantom energy dominated universe*, arXiv preprint arXiv:2006.15060 (<https://arxiv.org/abs/2006.15060>), June 2020.
7. R Chandramohan, V Muruguvalavan, SR Srikumar, *Drug delivery system using multiwalled carbon nano tube tagged with COVID-19 immunoglobulin and lipase/trypsin/protease like enzyme*, Int J Pharm Sci Clin Pharm 1 (1), 1-5, June 2020.
8. M Karunakaran, L Bruno Chandrasekar, K Kasirajan, R Chandramohan, *Preparation and Characterization of Transparent Conducting Mn and Ni-Doped Zinc Oxide Films Prepared by Successive Ionic Layer Adsorption and Reaction Method*, Journal of Nanoelectronics and Optoelectronics 15 (1), 101-107, 1555-1318, January 2020.
9. V Ramya, K Neyvasagam, R Chandramohan, R Mohan, S Valanarasu, *A Milton Franklin Benial, The consequence of immersion time in chemical bath deposition on the properties of CuO thin films*, Surface Engineering 35(10), 891-898, 1743-2944, October 2018.

10. R Murugesan, K Marimuthu, K Kasinathan, M Sathiah, C Rathinam, *An Investigation of SILAR Grown CdO Thin Films*, Iranian Journal of Chemistry and Chemical Engineering (IJCCE) 38 (4), 11-17, August 2019.
11. N Soundaram, R Chandramohan, R David Prabu, S Valanarasu, K Jeyadheepan, A Kathalingam, Mohamed S Hamdy, Abdullah M Alhanash, KS Al-Namshah, *Preparation of Eu-doped Cu<sub>2</sub>O thin films using different concentrations by SILAR and their heterojunction property with ZnO*, Journal of Electronic Materials 48 (7), 4138-4147, 0361-5235, April 2019.
12. TMV Muruguthiruvalluvan, AS Alagar Nedunchezian, V Natarajan, R Chandramohan, M Azhagurajan, P Anandan, M Arivanandhan, *A facile synthesis, structural, morphological and electrical characterizations of Zn<sub>1-x</sub>CoxO nanocrystals for thermoelectric applications*, Solid State Sciences 91 (1), 133-137, 1293-2558, May 2019.
13. S Natarajan, R Chandramohan, *Resolution of big rip singularity in loop quantum cosmology and bouncing scenarios*, Journal of Applied Physical Science International 11 (1), 30-37, 2395-5279, April 2019.
14. R Dilber Pushpitha, L Bruno Chandrasekar, J Thirumalai, K Gnanasekar, R Chandramohan, *Spin-resonant tunneling in CdTe/Cd<sub>1-x</sub>MnxTe double-barrier heterostructures with zero external field*, Physica E: Low-dimensional Systems and Nanostructures 107(1), 187-195, 1386-9477, March 2019.
15. M Ravikumar, R Chandramohan, K Deva Arun Kumar, S Valanarasu, V Ganesh, Mohd Shkir, S Alfaify, A Kathalingam, *Effect of Nd doping on structural and optoelectronic properties of CdO thin films fabricated by perfume atomizer spray method*, Bulletin of Materials Science 42 (1), 8, 0973-7669, January 2019.
16. R Chandramohan, S Valanarasu, V Ganesh, Mohd Shkir, A Kathalingam, S Alfaify, *Facile synthesis and characterization of undoped, Mn doped and Nd co-doped CuO nanoparticles for optoelectronic and magnetic applications*, Journal of Molecular Structure 1171(1), 388-395, 0022-2860, November 2018.

17. R Chandramohan, K Deva Arun Kumar, S Valanarasu, V Ganesh, Mohd Shkir, H Algarni, S AlFaify, *Transition metal (Mn) and rare earth (Nd) di-doped novel ZnO nanoparticles: a facile sol-gel synthesis and characterization*, Journal of Materials Science: Materials in Electronics 29 (15), 13077-13086, 1573-482X, August 2018.
18. M Ravikumar, R Chandramohan, K Deva Arun Kumar, S Valanarasu, A Kathalingam, V Ganesh, Mohd Shkir, S AlFaify, H Algarni, *Effect of Pr<sup>3+</sup> doping on key properties of CdO thin films deposited by spray pyrolysis using perfume atomizer*, Journal of Physics and Chemistry of Solids 118, 211-220, 0022-3697, July 2018.
19. M Ravikumar, V Ganesh, Mohd Shkir, R Chandramohan, K Deva Arun Kumar, S Valanarasu, A Kathalingam, S AlFaify, *Fabrication of Eu doped CdO [Al/Eu-nCdO/p-Si/Al] photodiodes by perfume atomizer based spray technique for opto-electronic applications*, Journal of Molecular Structure 1160, 311-318, 0022-2860, May 2018

### **Awards and Achievements**

1. The Enlightenment Award, International Tamil University, USA, 2020.
2. Foundation Member, Tamil Heritage Association, 2018.
3. Vocational Excellence Award, Cosmos Lions Club (Devakottai), 2016.
4. Best Scholar Award, Rotary Club, Devakottai, 2015.
5. CV Raman Fellowship Guest Scientist, FICCI, New Delhi, 2014.
6. Honorary Member, Indian Luminescence Society, Karnataka Chapter, 2010.

7. Travel Fellowship 8th ASCII Malaysia, CSIR, INSA, 2002.
8. Travel Fellowship ISPA 99 Singapore, DST, COSTED, 1999.

