Dr. K. Sethuraman

Head and Dean

Associate professor

Department of Materials Science

School of Technology

Central University of Tamil Nadu

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Educational Qualifications	**: M.Sc. (Physics), M.Phil. (Physics), Ph.D. (Physics)**
Professional Experience	**:17 Years (Teaching)**
h- index	**: 25**
i10 index	**: 52**
Citations	**: 1749**

FIELD OF SPECIALIZATION

- Crystal growth for Scintillator and NLO Applications
- Thin Films for solar energy applications
- 1D and 2D Nanomaterials
- Semiconducting materials & metal oxides

RESEARCH SPECIALIZATION

- Semiconductor devices
- Solar cells
- Resistive type sensors
- 2D-materials
- Scintillator crystals
- Photo catalysis

RESEARCH SPECIALIZATION

- Metal oxide and Chalcogenides thin film nanostructures, $CuInS_2$ (Chalcopyrites) and Cu_2ZnSnS_4 (Kesterites) based solar cells, Micro/Nano rods arrays.
- 2-dimensional layers, Graphene, Metal dichalcogenides, Graphene – Metal oxide composites for heterogeneous catalytic and photo catalytic applications.
- Organic Electronics - Small Molecular Organic Semiconductors for Organic Field Effect Transistors Applications. Thin film deposition by Physical Vapour Deposition, p-type and n-type Organic Field Effect Transistors. Organic Light Emitting Diodes (OLED) and Organic Solar Cells.
- Organic crystal growth using solution and melt technique (Bridgman Crystal Growth method), Synthesis and Crystal growth of Organic Materials for Nonlinear Optical Applications.

Research Guidance:

Program	Completed	Ongoing
Ph.D	9	2
Co - Guide	3	-
M.Phil	20	-
M.Sc	30	-
M. Tech	9	-

Students working / completed for their Ph.D. under my guidance

S. NO	Reg. No	NAME	PROJECT TITLE	YEAR
1	F8762	SankaraSubramanian .K	Preparation and Characterization of Pure and Doped Cadmium Oxide Thin Films Using Spray Pyrolysis Technique for Sensor Applications	MAY 2015
2	F9061	Soundarajan .P	Investigation of interfacial Energy Between Seed and Rods on One Dimensional TiO_2 and ZnO Thin films Grown by Chemical Methods	JULY 2016
3	F9094	Logu .T	Preparation and characterization of I-III-VI_2 ternary semiconductor thin films by chemical spray pyrolysis technique for photovoltaic application	April 2018
4	P3623	Kajamuhideen .M .S	Growth of Diphenylgunadine complex, Triphenylgunadine and Bis (2-aminobenzimidazolium) phthalate single crystals for efficient second order nonlinear optical applications	April 2018
5	P3266	Beaula Ruby Kamalam .M	Synthesis of grapheme oxide-transition metal oxide nanocomposites using solution techniques for catalytic and gas sensing applications	October 2018

6	F9324	Ruby Josephine. D	Studies on synthesis, characterization and application of pristine grapheme oxide and functionalized monolayer grapheme oxide nanosheets	November 2018
7	F9323	Sampath .M	Preparation and characterization of chemically deposited I_2 – II IV - VI_4 quaternary semiconductor thin films for photovoltaic applications	July 2019
8	P3274	Balachandar. B. K	Preparation of metal oxide thin films for gas sensing applications	October 2020
9	F9768	Subhaviveka. S	Tailoring of Intermediate Band in I-III-VI_2Thin Films via Metal Doping for Photovoltaic Application	April 2023
10	R201001	Hari Ramprasath R	Growth of Pure and Doped Organic Single Crystals for Scintillation Application	working
11	R211001	Balachandran M	Tailoring of intermediate bands in I-III-VI_2 nanostructured thin films via doping for photovoltaic applications	working

Students working / completed for their Ph.D under my co-guidance

S. NO	Reg. No	NAME	PROJECT TITLE	YEAR
1	F8678	Moovendaran .K	Crystal growth and characterization of some materials of intrest	October 2014
2	F8857	Indira .G	A study on aerosol measurement and its impact on urban climate	August 2018
3	F9558	Rajesh Kumar .R. M	A study on the role of blackcarbon and its impact over different climate regions	May 2019

RESEARCH COLLABORATION (BOTH NATIONAL & INTERNATIONAL)

Name of the Collaborator	Institute	Collaboration Details	Collaboration Output (Papers/Patents/Research/Online)
Prof. Arunava Gupta	Centre for Materials for Information Technology, Tuscaloosa, Alabama, USA	Raman fellowship,	Papers – 3

		Baskara advanced solar energy fellowship	
Prof. Pratim Biswas	The Lucy and Stanley Lopata Professor Chair, Department of Energy, Environmental and Chemical Engineering, Washington University in St. Louis, USA	Baskara advanced Solar Energy fellowship	Papers – 2
Prof. P. Ramaswamy	Dean, SSN Research Center, SSN College of Engineering, Chennai.	Crystal Growth and Solar Cells Fabrication	Papers – 13.
Prof. Yoshitaka Okada	Research Center for Advanced Science and Technology, The University of Tokyo, Japan	Intermediate Band Solar Cells	Papers – 2
Prof. K. Asokan	Department of Physic s & Centre for Interdisciplinary Research, University of Petroleum and Energy Studies, Dehradun, Uttarakhand.	Inter University Accelerator Centre, New Delhi	Papers – 2
Prof. K. Ramamurthi	Department of Physics & Nanotechnology, SRM University, Chennai 603203, Tamil Nadu, India	Thin film and nano materials preparation	Papers – 38
Dr. R. Ramesh Babu	Department of Physics, Bharathidasan University, Trichy		Papers – 23
Dr. A. Dhakshinamoorthy	Department of Natural Products Chemistry, School of Chemistry, Madurai Kamaraj University, Madurai		Papers – 4
Dr. G. Gnanakumar	Department of Physical Chemistry, School of Chemistry, Madurai Kamaraj University, Madurai		Papers – 2
Dr. T. Logu	Department of Physics GTN Arts College Dindigul		Papers – 7
Dr. Babita Tiwari	Scientific officer, Bhabha Atomic Research Centre, Mumbai	DAE – BRNS project collaborator	Papers – 1

COMPLETED RESEARCH PROJECT

No	Title of the Project	Funding Agency	Total Grant (Rs.)	Year
1	Synthesis, preparation and characterization of I-III-VI_2 ternary semiconductor Nanostructure thin films by chemical spray pyrolysis technique for photovoltaic applications	UGC MRP	10,20,800	2012-15

2	Nontoxic Cu_2ZnSnS_4 Superstrate solar cells using vertically aligned ZnO nanorods	UGC XII Plan	1,00,000	2014-15

ON-GOING RESEARCH PROJECT

No	Title of the Project	Funding Agency	Total Grant (Rs.)	Year
1	Growth of Pure and Doped Organic Single Crystals for Scintillator Applications	DAE – BRNS	34,62,400	2018 - 22
2.	Tailoring of intermediate bands in I-III-VI_2 nanostructured thin films via doping for photovoltaic applications	CSIR	16,84,000	2019 - 22
3.	Effect of swift heavy ion irradiation on chalcopyrite absorber and kesterite counter electrode for efficient solar cell applications	IUAC	6,51,000	2021-24

HONORS/AWARDS/RECOGNITIONS

- **Junior Research Fellowship** (2003-05), **Department of Science and Technology**, Government of India.
- **Senior Research Fellowship**(2005-06), **Department of Science and Technology**, Government of India.
- **Japanese Government Fellowship (Monbhusho Fellowship)** (2006-08)
  Department of Electrical Engineering,
  Aichi Institute of Technology, Toyota, Japan.
- **Assistant Professor** (2009-10)**KFnSC**– Konkuk University MAT-Fraunhofer ISE Next Generation Solar Cell Research Center
  Konkuk University, Seoul, South Korea
- **Assistant Professor** (2010-20), Department of Physics, School of Physics, Madurai Kamaraj University, Madurai – 625 021.
- **Raman US Postdoctoral Fellowship (2015-16)**
  (UGC Sponsored) – 1st October 2016 to 30th September 2017 Centre for Materials for Information Technology

University of Alabama, Tuscaloosa, Alabama, USA

List of Research Papers Published in International Journals : 92

92	Sivakumar, A., S. Dhas, Lidong Dai, J. Thirupathy, K. Sethuraman, Raju Suresh Kumar, Abdulrahman I. Almansour, N. Vijayan, and S. A. Dhas. "Dynamic shock wave-induced switchable order to disorder states of single crystal of sulfamic acid: a combined study of X-ray and Raman spectroscopy." *Journal of Materials Science* (2023): 1-11. (I.F. 4.682)
91	M. Beaula Ruby Kamalam, J. Menaka, S. S. R. Inbanathan, K. Sethuraman, A. Shahid, Hassan Fouad, and S. Hussain "Tin Oxide-Graphene Oxide (SnO2/GO) Nanocomposite: A Promising Photocatalyst for Rhodamine-B Dye Degradation." *Science of Advanced Materials*, 15,(2023): 1–7 (I.F1.474)
90	R. Hari Ramprasath, M. S. Kajamuhideen, Babita Tiwari, and K. Sethuraman. "Growth, structural, optical, and thermal behavior of bibenzyl organic single crystal for scintillator applications." *Journal of Materials Science: Materials in Electronics* 34, no. 7 (2023): 620. (I.F. 2.779)
89	Thirumalaisamy, Logu, SoundarrajanPalanivel, Karthikeyan Jeyakumar, SethuramanKunjithapatham, Trystan Watson, and SudhagarPitchaimuthu. "The upsurge of absorption coefficient in CuInS2 thin film with Ru doping: an energetic absorber layer in a superstrate solar cell." *Materials Today Chemistry* 26 (2022): 101217. (I.F. 7.613)
88	Margoni, Mudaliar Mahesh, S. Mathuri, K. Ramamurthi, V. Ganesh, R. Ramesh Babu, and K. Sethuraman. "Electrochromic properties of hydrothermally grown microstructured V2O5 and MWCNT/V2O5 composite films." *Journal of Materials Science: Materials in Electronics* 33, no. 32 (2022): 24819-24833. (I.F. 2.779)
87	Enhancement of photoelectric properties of Cu2ZnSnS4 thinfilms byelectronic excitations induced by swift heavy ions, M. Sampath, T. Logu, P. MathanKumar, K. Asokan, K. Sethuraman, Materials Science & Engineering B 280 (2022) 115683. (I.F. 3.408)
86	Study of sub-band states formation in the optical band gap of CuGaS2 thin films by electronic excitations, S. Suba Viveka, T. Logu, N. Ahsan, K. Ashokan, S. Kalainathan, K. Sethuraman, Y. Okada, Journal of Physics and Chemistry of Solids 164 (2022) 110636. (I.F. 4.383)
85	Fe-doped CuGaS2 (CuGa1-xFexS2) - Detailed analysis of the intermediate band optical response of chalcopyrite thin films based on first principle calculations and experimental studies,S. Suba Viveka, T. Logu, N. Ahsan, J. Karthikeyan, P. Murugan, M. Sampath, S. Kalainathan, Arunava Gupta, Y. Okada, K. Sethuraman, Materials Science in Semiconductor Processing 136 (2021) 106133(I.F. 3.927)
84	Direct sunlight-driven enhanced photocatalytic performance of V_2O_5 nanorods/ graphene oxide nanocomposites for the degradation of Victoria blue dye, Beaula Ruby Kamalam, Stephen Inbanathan,

	K. Sethuraman,Ahmad Umar, Hassan Algadi, Ahmed A. Ibrahim, Qazi Inamur Rahman, Christos S. Garoufalis, andSotiriosBaskoutas, Environmental Research 199 (2021) 111369 (I.F. 6.498)
83	Enhanced sensing of ethanol gas using fiber optics sensor by hydrothermally synthesized GO-WO3 nanocomposites, Beaula Ruby Kamalam, Stephen Inbanathan, B. Renganathan, and K. Sethuraman, Materials Science and Engineering B, 2021, 263, 114843(I.F. 5.08)
82	Investigation on the photocatalytic and sonophotocatalytic activities, of {002} facets of ZnO nanoparticles synthesized through template/surfactant-free hydrothermal method at diferent temperatures and time durations, N. Kumaresan, M. Maria AngelinSinthiya, M. Praveen Kumar, S. Ravichandran, R. Ramesh Babu, K. Sethuraman, K. Ramamurthi, Journal of Materials Science: Materials in Electronics (2020) 31:13817–13837 (I.F. 2.478).
81	Engineering of sub-band in $CuGaS_2$ thin films via Mo doping by chemical spray pyrolysis route, T. Logu, Nazmul Ahsan, S. Kalainathan, Myeongok Kim, K. Sethuraman, and Yoshitaka Okada, Thin Solid Films, 2020, 709(1), 138252(I.F. 2.183).
80	Tuning the Properties of the $CuAl_{(1-x)}Fe_xS_2$ Thin Film as a Potential Absorber for Solar Cell Application, D. Naveena, Logu .T, RengasamyDhanabal, K. Sethuraman, A. Chandra Bose, ACS Appl. Energy Mater., 2020, 3(11), 10550–10559 (I.F. 6.024).
79	Enhanced photo-response of CdTe Thin film via Mo doping prepared using electron beam evaporation technique, T. Manimozhi, T. Logu, J. Archana, M. Navaneethan, K. Sethuraman and K. Ramamurthi, J Mater Sci: Mater Electron, 2020, 31, 21059–21072 (I.F. 2.478).
78	Synergetic effect of g-$C3N_4$/ZnO binary nanocomposites heterojunction on improving charge carrier separation through 2D/1D nanostructures for effective photocatalytic activity under the sunlight irradiation, Kumaresan Netesan, Maria Angelin Sinthiya, Sarathbavan Murugan, Kandasamy Ramamurthi, K. Sethuraman, Ramesh Babu Ramraj, Separation and Purification Technology, 2020, 244, 116356 (I.F. 5.107)
77	Study of electrical conductivity and photoelectric response of liquid phase exfoliated graphene thin film prepared via spray pyrolysis route, V. Vasanthi, T. Logu, V. Ramakrishnan, K. Anitha, and K. Sethuraman, Carbon Letters, In Press. (I.F. 1.807)
76	Spray Pyrolysis Deposited Cdo:Al Films for Trimethylamine Sensing Application, B. K. Balachandar, T. Logu, R. Hari Ramprasath, K. Sankarasubramanian, P. Soundarrajan, M. Sridharan, K. Ramamurthi and K. Sethuraman, Materials Science in Semiconductor Processing, 2020, 105, 104753. (I.F. 3.927)
75	Single-step growth of CuInS2 nanospheres morphology thin films by electrospray chemical aerosol deposition technique, T.Logu, P. Soundarrajan, Ramesh Raliya, ShalineeKavadiya, K. Sethuraman and Pratim Biswas, Materials Letters, 2019, 238, 206-209 (I.F. 3.019)
74	Synthesis and characterization of graphene oxide nanosheets, M.Muniyalakshmi, K.Sethuraman, D.Silambarasan, Materials today procedings. 2019.
73	Highly Crystalline and improved photo-response property of CuInS2 Thin films via Yb Doping by Chemical Spray Pyrolysis Technique, T. Logu, P. Soundarrajan, R. Hari Ramprasath, and K. Sethuraman, AIP Conf. Proc. 2019, 2115, 030320.
72	Colorimetric detection of mercury ions based on anti-aggregation of gold nanoparticles using 3, 5-dimethyl-1-thiocarboxamidepyrazole, Ramesh Kataria, Kunjithapatham Sethuraman, Devika Vashisht, AseemVashisht, Arunava Gupta, Microchemical Journal.2019, 148, 299-305, (I.F. 2.746)

71	Development of pure rutile TiO2 and Magneli titanium sub-oxide microstructures over titanium oxide-seeded glass substrates using surfactant-free hydrothermal process, Maria AngelinSinthiya, KumaresanNetesan, Kandasamy Ramamurthi, K. Sethuraman, Bulletin of Materials Science. 2019, 42(3), 127, (I.F. 0.925)
70	Significant enhancement of photo-physicochemical properties of Yb doped Copper oxide thin films for efficient solid-state solar cell, D. Naveena, T. Logu, K. Sethuraman, A. Chandra Bose, Journal of Alloys and Compounds, 2019, 795, 187-196, (I.F. 3.779)
69	Investigation on growth, physico-chemical properties, density functional theory and anti-microbial studies of a new organic acentric NLO crystal: Bis (2-aminobenzimidazolium) phthalate, M. S. Kajamuhideen, K. Sethuraman, P. Sasikumar, H. Shakila, Materials Science and Engineering B, 2019, 240, 106-115, (I.F. 5.08)
68	Visible light driven photocatalytic activity of ZnO/CuO nanocomposites coupled with rGO heterostructures synthesized by solid-state method for RhB dye degradation, N. Kumaresan, M. Maria AngelinSinthiya, K. Ramamurthi, R.Ramesh Babu, K.Sethuraman, Arabian Journal of Chemistry, 2019, (I.F. 2.969)
67	New catalyst Ti doped CdO thin film for non-enzymatic hydrogen peroxide sensor application, K. Sankarasubramanian, K. JusticeBabu, P. Soundarrajan, T. Logu, G. Gnanakumar, K. Ramamurthi, K. Sethuraman, S. M. Senthil Kumar, Sensors and Actuators B, 2019, 285, 164-172, (I.F. 5.667)
66	Specific Al mole ratio doping aided flake-like ZnO surface morphology nanostructures film for efficient window layer in CuInS2 photovoltaic cells, Logu .T, D. Naveena,Soundarrajan .P, Senthil Kumar S. M, K. Sankarasubramanian, and K. Sethuraman, Solar energy, 2019, 177, 108-117 (I.F. 4.374)
65	The degree of supersaturation dependent ZnO nano/micro rod arrays thin films growth using chemical bath deposition and hydrothermal methods, SoundarrajanPalanivel, K. Sankarasubramanian, LoguThirumalaisamy, K. Sethuraman, Arunava Gupta, Senthil Kumar S. M, K. Jeganathan, Kandasamy Ramamurthi, Physica E: Low-dimensional Systems and Nanostructures, 2019, 106, 50-56, (I.F. 2.399)
64	Comparative study of effective photoabsorberCuO thin films prepared via different precursors using chemical spray pyrolysis for solar cell application, D. Naveena, Logu .T, RengasamyDhanabal, K. Sethuraman, A. Chandra Bose, Journal of Materials Science Materials in Electronics, 2019, 30, 561–572, (I.F. 2.019)
63	Crystal growth, physical properties, and theoretical investigation on organic acentric single crystal towards efficient second-order NLO applications: Triphenylguanidine, KajaMuhideen, K. Sethuraman, Kandasamy Ramamurthi, Applied Physics A,2018, 124, 764, (I.F. 1.694)
62	Aerobic Oxidation of Alcohols Catalyzed by V2O5 Rods Decorated on Graphene Oxide, N. Anbu, M. Beaula Ruby Kamalam, K. Sethuraman, A. Dhakshinamoorthy, Chemistry Select, 2018, 3, 12725-12733, (I.F. 1.505)
61	Tailoring sub-bandgap of CuGaS2 thin film via chromium doping by facile chemical spray pyrolysis technique, S. Kalainathan, N. Ahsan, T. Hoshii, Y. Okada, T. Logu, K. Sethuraman, Journal of Materials Science: Materials in Electronics, 2018, 29, Issue 22, 19359–19367, (I.F. 2.019)
60	Structural, optical and photocatalytic properties of spray deposited Cu2ZnSnS4 thin films with various S/(Cu+Zn+Sn) ratio,,M. Sampath, K. Sankarasubramanian, J. Archana, Y. Hayakawa, K. Ramamurthi, K. Sethuraman, Materials Science in Semiconductor Processing, 2018, 87, 54-64, (I.F. 3.927)

59	Investigation on the g-C3N4 encapsulated ZnO nanorods heterojunction coupled with GO for effective photocatalytic activity under visible light irradiation, N. Kumaresan, M. Maria AngelinSinthiya, M. Praveen Kumar, S. Ravichandran, R. Ramesh Babu, K. Sethurman and K. Ramamurthi, Arabian Journal of Chemistry, 2018,(I.F. 2.969)
58	Influence of heat treatment on the properties of hydrothermally grown 3D/1D TiO2 hierarchical hybrid microarchitectures over TiO2 seeded FTO substrates, Maria AngelinSinthiya, KumaresanNetesan, Kandasamy Ramamurthi, K. Sethuraman, R. Ramesh Babu, S. Moorthy Babu, and V. Ganesh, Applied Surface Science, 2018, 449, 122-131, (I.F. 4.439)
57	Enhanced photo response of mesoporous nanostructured CdS thin film via electrospray aerosol deposition technique, LoguThirumalaisamy, SoundarrajanPalanivel,K.Sankarasubramanian, and K. Sethuraman, AIP conference Proceedings, 2018, 1942, 080066.
56	High crystalline CuAlS2 thin films via chemical spray pyrolysis route, D. Naveena, LoguThirumalaisamy, K. Sethuraman, and A. Chandra Bose, AIP conference Proceedings, 2018, 1942, 080028
55	Oxidation of styrene using TiO2 - Graphene oxide composite as solid heterogeneous catalyst with hydroperoxide as oxidant, Sakthivel, Ruby Josephine, K. Sethuraman, AmarajothiDhakshinamoorthy, Catalysis Communications, 2018, 108, 41-45, (I.F. 3.463)
54	Influence of Cr-doping on structural, morphological, optical, dielectric and magnetic properties of KNbO3 ceramics, Raja Sakthivel, Ramesh Babu Ramaraj, KandasamyRamamurthi and K. Sethuraman, Materials chemistry and physics, 2018, 213, 130-139, (I.F. 2.21)
53	Hydrothermally Grown Nano and Microstructured V2O5 Thin Films for Electrochromic Application, Magesh MudaliarMargoni, MathuriSelvarajan, Kandasamy Ramamurthi, Ramesh Babu Ramaraj, Ganesh and K. Sethuraman, Applied surface science, 2018, 449, 193-202, (I.F. 4.439)
52	Modification on the properties of vanadium oxide films deposited from NH4F added HNO 3 treated ammonium metavanadate precursor solution by spray pyrolysis technique, Magesh MudaliarMargoni, MathuriSelvarajan, Kandasamy Ramamurthi, Ramesh Babu Ramaraj and K. Sethuraman, Thin Solid Films, 2018, 655, 62-69, (I.F. 2.183)
51	Enhancing Resistive Type Hydrogen Gas Sensing properties of Cadmium Oxide Thin Films by Copper Doping, Shankar Kaliappan, SoundarrajanPalanivel, LoguThirumalaisamy, Kunjithapatham K. Sethuraman, Kandasamy Ramamurthi, New Journal of Chemistry, 2017, 42(2), 1457–1466, (I.F. 3.201)
50	Enhanced Photo Catalytic Activity of Graphene Oxide/MoO3Nanocomposites in the degradation of Victoria Blue Dye under Visible light Irradiation, Beuala Ruby Kamalam, Stephen Inbanathan, Kunjithapatham Sethuraman, Applied surface science, 2017, 449, 685-696, (I.F. 4.439)
49	Crystal growth, physical properties and computational insights of semi-organic non-linear optical crystal diphenylguanidinium perchlorate grown by conventional solvent evaporation method, M.S. Kajamuhideen, K. Sethuraman, K. Ramamurthi and P. Ramasamy, Journal of Crystal Growth, 2017, 483, 16-25, (I.F. 1.742)
48	Hierarchical architecture of CuInS2 microspheres thin films: Altering laterally aligned crystallographic plane growth by Cd and V doping, LoguThirumalaisamy, Ramesh Raliya, ShalineeKavadiya, SoundarrajanPalanivel, Kunjithapatham Sethuraman and Pratim Biswas, Crysteng comm, 2017,19, 6602-6611, (I.F. 3.304)

47	Growth and Physical Characterization of Organic Nonlinear Optical Single Crystal: N,N'-DiphenylguanidiniumFormate, M.S. Kajamuhideen, K. Sethuraman, K. Ramamurthi and P. Ramasamy, Optics and Laser Technology, 2017, 91, 159-165, (I.F. 2.503)
46	Sprayed vanadium pentoxide thin films: Influence of substrate temperature and role of HNO3 on the structural, optical, morphological and electrical properties, Magesh MudaliarMargoni, MathuriSelvarajan, Kandasamy Ramamurthi and K. Sethuraman, Applied surface science, 2017, 418, 280-290, (I.F. 4.439)
45	Morphologically tuned 3D/1D rutile TiO2 hierarchical hybrid microarchitectures engineered by one-step surfactant free hydrothermal method, Maria angelinSinthiya, Kandasamy Ramamurthi, K. Sethuraman and Ramesh babu Ramraj, Applied surface science, 2017, 405, 195-204, (I.F. 4.439)
44	Titanium dioxide anchored grapheme oxide nanosheets for highly selective voltammetric sensing of dopamine, Ruby Josephine, K. Justice babu, George peter Gnana kumar and K. Sethuraman, Microchim Acta, 2017, 184, 781-790, (I.F. 5.705)
43	Hydrothermally grown ZNO nanoparticles for effective photocatalytic activity, N. Kumaresan, K. Ramamurthi, R. Ramesh babu, K. Sethuraman and S. Moorthy babu, Applied surface science, 2017, 418, 138-146 (I.F. 4.439)
42	Vanadium doping induces surface morphological changes of CuInS2 thin films deposited by chemical spray pyrolysis, T. Logu,K.Sankarasubramanian, P. Soundarrajan, J. Archana, K. Sethuraman, Journal of Analytical and Applied Pyrolysis, 2016, 122, 230-240, (I.F. 3.486)
41	Investigation on vanadium oxide thin films deposited by spray pyrolysis technique, Mudaliar Mahesh Margoni, S. Mathuri, K. Ramamurthi, R. Ramesh Babu, and K. Sethuraman, AIP Conference Proceedings, 2016, 1728, 20272.
40	Synthesis, Characterization and Catalytic Activity of CdS-Graphene Oxide Nanocomposites, DurairajSanthakumar Ruby Josephine, Balasubramanian Sakthivel, Kunjithapatham Sethuraman and AmarajothiDhakshinamoorthy, Chemistry Select, 2016, 1, 2332–2340, (I.F. 1.505)
39	Solvothermal Synthesis and Characterization of Reduced Graphene oxide/ Vanadium Pentoxide Hybrid nanostructures, M. Beaula Ruby Kamalam, B.K. Balachander and K. Sethuraman, Materials Today: Proceedings, 2016, 3-6, 2132-2140
38	Investigation on the pure and fluorine doped vanadium oxide thin films deposited by spray pyrolysis method, Mudaliar Mahesh Margoni, S. Mathuri, K. Ramamurthi, R. Ramesh Babu and K. Sethuraman, Thin Solid Films, 2016, 1, 51-56, (I.F. 2.183)
37	Doping introduced nucleation barrier in ZnO nano/micro rod arrays prepared by chemical bath deposition, P. Soundarrajan, M. Sampath, T. Logu, K. Sethuraman, K. Ramamurthi, Materials Letters, 2016, 162, 191–194, (I.F. 2.687)
36	Studies on Pure and Fluorine doped Vanadium Pentoxide Thin Films Deposited by Spray Pyrolysis Technique, Mudaliar Mahesh Margon, Ramamurthi K, Mathuri S, Manimozhi T, RameshbabuR, K. Sethuraman, Int. J. Chem Tech Res. 2015, 7(3), 1072-1078

35	Influence of substrate temperature on ethanol sensing properties of CdO thin films prepared by facile spray pyrolysis method, K. Sankarasubramanian, M. Sampath, J. Archana, K. Ramamurthi, K. Sethuraman and Y. Hayakawa, Journal of Materials Science Materials in Electronics, 2015, 26(2):955-961.
34	Growth of CuInS2 microspheres on CuInS2 seed layer prepared using facile low cost chemical methods, T. Logu, K. Sankarasubramanian, P. Soundarrajan and K. Sethuraman, AIP Conf. Proc. 2015, 1665, 080066 – 080069
33	Low power optical limiting studies on nanocrystalline benzimidazole thin films prepared by modified liquid phase growth technique, P. A. Praveen, S. P. Prabhakaran, R. Ramesh Babu, K. Sethuraman and K. Ramamurthi, Bulletin of Materials Science, 2015, 38, 1–7, (I.F. 0.925)
32	Chemical spray pyrolysis deposition of transparent and conducting Fe doped CdO thin films for ethanol sensor, K. Sankarasubramanian, P.Soundarrajan K. Sethuraman , K. Ramamurthi, Materials Science in Semiconductor Processing, 2015, 40, 879–884, (I.F. 3.927)
31	Titanium Dioxide/Graphene Oxide Nanocomposites as Heterogeneous Catalysts for the Esterification of Benzoic Acid with Dimethyl Carbonate, DurairajSanthakumar Ruby Josephine, Balasubramanian Sakthivel, Kunjithapatham Sethuraman and AmarajothiDhakshinamoorthy, Chem Plus Chem, 2015, 80, 1472-1477, (I.F. 3.205)
30	Cu ions induced reorientation of crystallite in ZnO nano/microrod arrays thin films, P.Soundarrajan, K.Sankarasubramanian, M.Sampath, T.Logu, K. Sethuraman and K. Ramamurthi, Physica E, 2015, 71, 56–63, (I.F. 2.399)
29	Interface Energy Barrier Tailoring the Morphological Structure Evolution from ZnO Nano/Micro Rod Arrays to Microcrystalline Thin Films by Mn Doping, P. Soundarrajan and K. Sethuraman, RSC Advances, 2015, 5, 44222, (I.F. 3.108)
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1	Synthesis, Growth of Organic Nonlinear optical crystal: Semicarbazone of 2-Amino-5- Chloro – Benzophenone (S2A5CB) and its Characterization, K. Sethuraman, R.Ramesh Babu, N.Vijayan, R.Gopalakrishnan and P.Ramasamy, J. Crystal Growth, 2006, 290, 539-543, (I.F. 1.742)

List of Book Chapters

1	Impact of Solar Energy on Global Climate Change, M. Balachandran, C. Thiyakarajan, R. Hari Ramprasath and K. Sethuraman, Impact of Climate Change Mitigation and Adaptation, Velmurugan P Shanmugam, S Nagarajan, SSDN Publishers & Distributors, New Delhi. ISBN No. 978-93-9279-803-0
2	Investigation on monalayered GO nanosheets and functionalization with TiO2 (20 Wt %) nanoparticlesAdvanced Nanomaterials: Synthesis and Applications Pages 219-222, 2015 Eds: V.

	Rajendran, K. Saminathan, K.E. GeckelerBLOOMSBURY PUBLISHING INDIA PVT. LTD ISBN: 978-93-85436-74-1
3	Graphene Oxide/V2O5 Nanocomposite for Photo Catalytic Applications Advanced Nanomaterials: Synthesis and Applications Pages 219-222, 2015 Eds: V. Rajendran, K. Saminathan, K.E. Geckeler BLOOMSBURY PUBLISHING, ISBN: 978-93-85436-74-1

CONFERENCE/WORKSHOP/SEMINAR/TRAINING ORGANIZED

Type	Name	Date(s)	Place	Role Played
Workshop	Two Day Workshop on Materials Preparation and Characterization Techniques	23rd and 24th March, 2023	Department of Materials Science School of Technology Central University of Tamil Nadu Thiruvarur – 610005	Convener
Conference	Two-day sensitization programme for college students on climate change: impacts, threats, adaptation and mitigation strategies	7th and 8th November, 2022	Department of Materials Science School of Technology Central University of Tamil Nadu Thiruvarur – 610005	Convener
Seminar	National Science Day Celebration for School Students	7th March, 2022	Department of Materials Science School of Technology Central University of Tamil Nadu Thiruvarur – 610005	Convener
Symposium	National Symposium on Advanced Functional Materials (NSAFM-2022)	21st March 2022	Department of Materials Science School of Technology Central University of Tamil Nadu Thiruvarur – 610005	Convener
Seminar	Seminar on Recent Trends in Advanced Materials (SRAM-2012)	8th& 9th March 2012	School of Physics, Madurai Kamaraj University, Madurai	Co-Convener
One day acquaintance	One Day Acquaintance Programmeon Experimental Facilities at Inter University Accelerator Centre	15th November 2013	School of Physics, Madurai Kamaraj University, Madurai	Secretary
National seminar	National seminar on X-Ray Crystallography (NSXC-2014)	29th September to 1stOctober 2014	School of Physics, Madurai Kamaraj University, Madurai	Co-Convener

workshop	One Day Workshop on Materials Characterization Techniques: AFM &XRD	19th November 2014	School of Physics, Madurai Kamaraj University, Madurai	Convener
workshop	Two day workshop on High resolution Transmission Electron Microscopy (HRTEM)	7 & 8th January 2016	Central Instrumentation Centre, Madurai Kamaraj University, Madurai	Convener
workshop	Two-day workshop on Nanomaterials Characterization by Electron Microscopy (WNCEM - 2018)	21 & 22, February 2018	Central Instrumentation Centre, Madurai Kamaraj University, Madurai	Co-Convener

RESOURCE PERSONS IN VARIOUS CAPACITIES

Paper Presented in National/International Seminars Symposia and Conferences : 75

Invited/Special Lectures Presented : 78

MEMBERSHIP IN PROFESSIONAL BODIES

1. **Life Member in Indian Association for Crystal Growth**
2. **Member of Japan Society of Applied Physics (2008)**
3. **Member of Korean Physical Society (2013)**
4. **Materials Research Society (MRS), USA (2017 – 2018)**

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