

Dr. SURESH M.K.

ASSISTANT PROFESSOR



Work History

ASSISTANT PROFESSOR

St. Thomas College, Ranni | 2013 - present

Mohandas College of Engineering and Technology,
Nedumangad | 2011 - 2013

HIGHER SECONDARY SCHOOL TEACHER

NMHSS Kariamplave, Pathanamthitta | 2004 - 2005

JUNIOR RESERACH FELLOW

ISRO Respond Project, Mar Ivanios College,
Thiruvananthapuram | 2008 - 2010

Education History

Ph.D.

University of Kerala | 2012

M.Phil.

Dept. of Optoelectronics, University of Kerala | 2006

M.Sc.

School of Pure & Applied Physics, MG University | 2003

B.Sc.

St. Thomas College, Ranni | 2001

Courses attended for Professional Developments

Refresher Course in Nanoscience, UGC-HRDC, University of Kerala | 2014

Orientation Course for NSS Program Officers at Rajagiri College of Social Sciences, Kalamasserry | 2016

Orientation Programme for University/College teachers at UGC-HRDC, Kannur University | 2017

Induction Training of FLAIR program at IIT Madras initiated by the Department of Higher Education, Govt. of Kerala | 2019

Refresher Course in Material Science: Recombinant Memetics, UGC-HRDC, Calicut University | 2021

Contact Details

Madukkayil Cottage, Kottanad P.O., Vrindavanam,
Pathanamthitta, Kerala 689615

sureshmk@stthomascollegeranni.com

Mobile No.: 944 673 8693

Area of specialization/Research Interests

- Materials Science
- Nanotechnology

Awards and Achievements

Recipient of Young Scientist Award (Physical Sciences) of KSCSTE in 2011

Research Guidance

U.O. No. 2683/AC A 6/2020/M.G.U. dated 18.06.2020

Official Roles in Administration /Corporate Life of the College

- RUSA Nodal Officer
- Green Audit Committee Coordinator
- Research Development Committee Coordinator
- Vimukthi Cell Coordinator
- College Alumni General Secretary
- Students' Grievances and Redressal Committee Coordinator

Membership

Life time member of Indian Society for Technical Education (ISTE)

Publications in International Journals

1. **M.K. Suresh**, P.R.S. Wariar, J.K. Thomas and Sam Solomon, "Microwave and photoluminescent characterizations of $(\text{Ca}_2\text{Mg}_3)(\text{X}_{1.75}\text{Sb}_{0.25})\text{TiO}_{12}$ [X = Nb and Ta] ceramics", *J. Mater. Sci: Mater. Electron* 21(11) (2010) 1191-1194
2. **M.K. Suresh**, J.K. Thomas, H. Sreemoolanadhan, C.N. George, Annamma John, Sam Solomon, P.R.S. Wariar, J. Koshy, "Synthesis of nanocrystalline magnesium titanate by an auto-igniting combustion technique and its structural, spectroscopic and dielectric properties", *Mater. Res. Bull.* 45 (2010) 761-765
3. **M.K. Suresh**, Annamma John, J.K. Thomas, P.R.S. Wariar, Sam Solomon, "Structural, spectroscopic and dielectric investigations on $\text{Ba}_8\text{Zn}(\text{Nb}_6\text{-xSbx})\text{O}_{24}$ microwave ceramics", *Mater. Res. Bull.* 45 (2010) 1389-1395
4. **M.K. Suresh**, Annamma John, J.K. Thomas, P.R.S. Wariar, Sam Solomon, "Structural analysis and properties of thermally stable $\text{Ba}_8\text{Mg}(\text{Nb}_6\text{-xSbx})\text{O}_{24}$ microwave ceramics", *J. Alloys Compd.* 509 (2011) 2401-2406
5. **M.K. Suresh**, H. Padma Kumar, P.R.S. Wariar, J.K. Thomas, Sam Solomon, "Dielectric and photoluminescent properties of $(\text{Ca}_2\text{Mg}_3\text{-xPbx})\text{A}_2(\text{Ti}_{0.75}\text{Zr}_{0.25})\text{O}_{12}$ [x= 0 & 0.25; A= Nb & Ta] microwave ceramics", *J. Mater. Sci: Mater. Electron* 23(1) (2012) 200-205
6. **Madukayil Kunjoonju Suresh**, Jijimon Kumpukattu Thomas, Annamma John, Sam Solomon, Jacob Koshy, Hariharan Sreemoolanadhan, Chandy Nellimmoottil George, "Structural and dielectric studies of nanocrystalline calcium substituted magnesium titanate synthesized through an auto-igniting combustion technique", *Int. J. Appl. Ceram. Technol.* 9(2) (2012) 366-373
7. Sam Solomon, **M.K. Suresh**, J.K. Thomas, V.S. Prasad, P.R.S. Wariar, "Synthesis and characterization of $\text{Ba}_8(\text{Mg}_{1\text{-xZnx}})\text{Nb}_6\text{O}_{24}$ hexagonal perovskites", *Ceram. Inter.* 38 (2012) 6487-6494
8. Shyla Joseph, **M.K. Suresh**, J.K. Thomas, Annamma John, Sam Solomon, "Synthesis, Characterization, and Spectroscopic Analysis of $\text{Nd}_x\text{Y}_{1\text{-x}}\text{TiNbO}_6$ Microwave Ceramics", *Int. J. Appl. Ceram. Technol.* 7(S1) (2010) E129-E134
9. H. Padma Kumar, **M.K. Suresh**, J. K. Thomas, Annamma John, Benny George & Sam Solomon, "Effect of WO_3 and MoO_3 addition on LnTiTaO_6 (Ln = Ce, Pr and Nd) microwave ceramics", *J. Alloys Compd.* 478 (2009) 648-652
10. Y. Verma, K.D. Rao, **M.K. Suresh**, H.S. Patel, P.K. Gupta, "Measurement of gradient refractive index profile of crystalline lens of fisheye in vivo using optical coherence tomography", *Appl. Phys. B* 87(2007) 607-610
11. C.N. George, J.K. Thomas, H.P. Kumar, **M.K. Suresh**, V.R. Kumar, P.R.S. Wariar, R. Jose, J. Koshy, "Characterization, sintering and dielectric properties of nanocrystalline barium titanate synthesized through a modified combustion process", *Mater. Character.* 60 (2009) 322-326
12. Chandy N. George, J.K. Thomas, R. Jose, H. Padma Kumar, **M.K. Suresh**, V. Ratheesh Kumar, P.R. ShobanaWariar, J. Koshy, "Synthesis and characterization of nanocrystalline strontium titanate through a modified combustion method and its sintering and dielectric properties", *J. Alloys Compd.* 486 (2009) 711-715
13. **M.K. Suresh** and Sam Solomon, "Fabrication and Characterization of $\text{Ba}_8\text{Zn}(\text{Ta}_6\text{-xSbx})\text{O}_{24}$ Microwave Ceramics", *J. Mater. Sci: Mater. Electron* 29(22) (2018) 19601-19606
14. **M.K. Suresh** and J.K. Thomas, "Structural and temperature dependent dielectric properties of nanocrystalline PbTiO_3 synthesized through auto-igniting combustion technique", *Solid State Sciences* 98 (2019) 106025

Conference Papers

1. **M.K. Suresh**, Y. Verma, K. D. Rao, H. S. Patel, V.P. Mahadevan Pillai and P. K. Gupta, "Non-Invasive Measurement of Graded Refractive Index Profile of Zebra Fish Lens In-Vivo Using Optical Coherence Tomography", National Conference on Recent Trends in Optoelectronics & Laser Technology (NCOL 2007) held at University of Kerala, Trivandrum India | 2007
2. **M.K. Suresh**, H. Padma Kumar, Shyla Joseph, J.K. Thomas and Sam Solomon, "Photoluminescent and Dielectric Properties of $\text{Ca}_4.75\text{A}_{0.25}\text{Nb}_2\text{TiO}_{12}$ (A=Mg, Zn & Pb) Ceramics", International Conference on Functional Materials for Advanced Technology (ICFMAT 2009) held at Velammal Engineering College, Chennai, Tamil Nadu, India | 2009
3. **M.K. Suresh**, P.R.S. Wariar, J.K. Thomas and Sam Solomon, "Synthesis and Photoluminescence of Sb and Pb Substituted $(\text{Ca}_2\text{Mg}_3)(\text{Nb}/\text{Ta})_2\text{TiO}_{12}$ Ceramics", 97th Indian science Congress held at University of Kerala, Thiruvananthapuram | 2010
4. **M.K. Suresh**, J.K. Thomas, P.R.S. Wariar and Sam Solomon, " $\text{Ba}_8\text{Zn}(\text{Nb}_6\text{-xSbx})\text{O}_{24}$: Ceramics for Microwave and Optical Applications", Regional Seminar on Current Trends in Material Science held at Mahatma Gandhi College, Thiruvananthapuram, Kerala | 2010
5. **M.K. Suresh**, J.K. Thomas and Sam Solomon, "Comparison of nano and microscale synthesis of calcium magnesium titanate microwave ceramics", 23rd Kerala Science Congress held at CESS, Thiruvananthapuram | 2011
6. Annamma John, Sam Solomon, H. Padma Kumar, **M.K. Suresh**, A.S. Deepa and J.K. Thomas, "Spectroscopic Investigations on $\text{Ln}(\text{Zr}_{1/3}\text{Ti}_{2/3})\text{TaO}_6$ (Ln = Ce, Pr, Nd and Eu) Ceramics", International Conference on Perspectives in Vibrational Spectroscopy (ICOPVS 2008) held at Trivandrum, Kerala, India | 2008
7. H. Padma Kumar, **M.K. Suresh**, Shyla Joseph, J.K. Thomas and Sam Solomon, "Liquid phase sintering of LnTiTaO_6 (Ln= Ce, Pr and Nd) microwave ceramics", International Conference on Functional Materials for Advanced Technology (ICFMAT 2009) held at Velammal Engineering College, Chennai, Tamil Nadu, India | 2009
8. R. Pazhani, Varsha Viswanath, H. Padma Kumar, **M.K. Suresh**, A.S. Deepa, S. Vidya, Sam Solomon and J.K. Thomas, "Synthesis of Nanoparticles of Strontium Samarium Zirconium Oxide by a Single Step Modified Combustion Route and their Dielectric Characterization", National Seminar on Recent Advances in Nano Science & Technology (N S NANO- 2009) held at Sree Narayana College, Kollam | 2009
9. Praseeda R. Nair, Nancy Jacob and **M.K. Suresh**, "Synthesis and Characterization of Nanocrystalline ZnTiO_3 Ceramics", Proceedings of National seminar on Design and Properties of Nanomaterials for Emerging Technologies conducted by the Department of Physics, St. Thomas College, Ranni | 2015
10. Juby Varghese, Nancy Jacob and **M.K. Suresh**, "Synthesis and Characterization of Nanocrystalline $\text{Mg}_0.3\text{Zn}_0.7\text{TiO}_3$ Ceramics", Proceedings of National seminar on Design and Properties of Nanomaterials for Emerging Technologies conducted by the Department of Physics, St. Thomas College, Ranni | 2015
11. Ranjini Ravi, J.K. Thomas and **M.K. Suresh**, Synthesis and Characterization of Nano-crystalline MgZrO_3 Ceramics, Proceedings of National seminar on Design and Properties of Nanomaterials for Emerging Technologies conducted by the Department of Physics, St. Thomas College, Ranni | 2015