

**Dr. SULFIKKARALI NK**

Assistant Professor, Department of Physics, Farook College (Autonomous)  
Kozhikode, Kerala

Joining Date: 20-10-2014

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**1. Education**

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P.hD. in Physics, Annamalai University, Chidambaram 2013

M.Phil Physics, Annamalai University, Chidambaram 2008

M.Sc Physics, Annamalai University, Chidambaram 2006

**2. Research Interest**

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Material science, Biomaterials, Nano Drug delivery, in vivo and in vitro testing, Cell imaging

**3. Teaching Interest**

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Modern Physics, Instrumentation, Lasers and fiber optics, Solid state Physics, Spectroscopy

**4. Professional Experience**

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**Teaching Experience**

1. Assistant Professor(adhoc) ,Department of Physics, National Institute of Technology, Calicut
2. Assistant Professor(Guest Lecturer) ,Department of Physics, MAMO College Manassery

**Research Experience**

**Industry Experience**

**5. Software Proficiency**

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Microcal Origin, E-FTIR, Qualx, Powdell

**6. Research Publications**

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**Books**

**Edited Books**

**Chapters in Edited Books**

**Articles in refereed/indexed/listed Journals**

1. P. Saheeda, Y. M. Thasneem, K. Sabira, M. Dhaneesha, N. K. Sulffkarali, S. Jayalekshmi. Multi-walled carbon nanotubes/polypyrrole nanocomposite, synthesized through an eco-friendly route, as a prospective drug delivery system. Polymer Bulletin, 2022, doi.org/10.1007/s00289-022-04290-3.
2. K.M. Shafi, K. Muhammed Shibu, N.K. Sulfikarali and K.P. Biju. Sol-Gel Processed ZrO<sub>2</sub> Based Forming-Free Resistive Switching Memory Devices. Materials Science Forum, 2021, ISSN: 1662-9752, Vol. 1048, pp 198-202.
3. P. Prasoon, N. K. Deepak, N.K. Sulfikkarali, P. Jayaram. Thermoelectric Properties of Zr<sub>x</sub>In<sub>x</sub>Zn<sub>1-x</sub>O<sub>1-δ</sub> Thin Films. Adv. Mater. Lett. 2021, 12(1)21011596.

4. P. Prasoon, N. K. Deepak, N.K. Sulfikkarali, P. Jayaram, Micro-strain, Dislocation Density, Surface Morphology and Optoelectronic Properties of Indium Zinc Oxide Thin Films.2018, International Journal of Research in Advent Technology, 6, 12,2321-9637.
5. P. Prasoon, N. K. Deepak, N.K. Sulfikkarali, P. Jayaram. Intense, broad and strongly coupled multiple photoluminescence in zirconium doped ZnO thin films.2016 Res. J. Material Sci. 4(2), 1-4.
6. N. K. Sulfikkarali, and N. Krishnakumar. Evaluation of chemopreventive response of naringenin-loaded nanoparticles in experimental oral carcinogenesis using Laser-induced autofluorescence spectroscopy. Laser Physics DOI:10.1088/1054- 60X/23/4/045601.
7. N.K. Sulfikkarali, N. Krishnakumar, S. Manoharan, and R. Madhavan Nirmal. Chemopreventive efficacy of naringenin-loaded nanoparticles in 7,12-dimethylbenz(a)anthracene induced experimental oral carcinogenesis. Pathology Oncology Research DOI 10.1007/s12253-012-9581-1.
8. N. Krishnakumar, N.K. Sulfikkarali, S. Manoharan and R.Nirmal Madhavan (2012) Screening of chemopreventive effect of naringenin-loaded nanoparticles in DMBA-induced hamster buccal pouch carcinogenesis by FT-IR spectroscopy. Molecular and Cellular Biochemistry DOI 10.1007/s11010-013-1715-6.
9. N. Krishnakumar, N.K. Sulfikkarali, S. Manoharan and P. Venkatachalam (2012) Raman spectroscopic investigation of the chemopreventive response of naringenin and its nanoparticles in DMBA-induced oral carcinogenesis. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy. 115 (2013) 648–653.
10. N. Krishnakumar, N.K. Sulfikkarali, N. Rajendra Prasad and S. Karthikeyan, (2011) Enhanced anticancer activity of naringenin-loaded nanoparticles in human cervical (HeLa) cancer cells. Biomedicine & Preventive Nutrition. 4: 223-231.
11. N. Krishnakumar, S. Milton Prabu and N.K. Sulfikkarali (2012) Quercetin protects against cadmium-induced biochemical and structural changes in rat liver revealed by FT-IR spectroscopy. Biomedicine & Preventive Nutrition2: 179-185.

#### **Papers In Proceedings**

#### **Popular Articles**

#### **7. Papers Presented in Seminar/ Conferences**

#### **8. Recourse Persons served**

#### **Corporate Trainings**

#### **Faculty Development Programme**

1. One week FDP instrumental methods of analysis 7<sup>th</sup> to 13<sup>th</sup> October September to 13 October 2021 under MHRD-sponsored PMMMNMTT, organized by the Guru Angad Dev Teaching Learning Centre (TLC), SGTB Khalsa College, Delhi University in association with Bishop Moore College Mavelikara,
2. One week FDP, 09-15 September 2020. Research Ethics and Characterization Techniques in Materials Science. Organized by Guru Angad Dev Teaching Learning Centre, S.G.T.B. Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching

(PMMMNMTT) of MHRD and Bishop Moore College, Mavelikara, Affiliated to the University of Kerala & St. John's College, Agra.

3. Structural Analysis Using Rietveld Refinement, Microscopic and Compositional Analysis 29 September to 13 October 2021 under MHRD-sponsored PMMMNMTT, organized by the Guru Angad Dev Teaching Learning Centre (TLC), SGTB Khalsa College, Delhi University in association with Bishop Moore College Mavelikara, St. John's College Agra, Catholicate College Pathanamthitta, Sacred Heart College Chalakudy and Christ College Irinjalakuda.
4. One week FDP, 03-09 November 2020. Quality Science Education in India in the 21<sup>st</sup> Century. Organized by Guru Angad Dev Teaching Learning Centre, S.G.T.B. Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of ministry of education (MoE) and Christ college (Autonomous), Irinjalakuda, Kerala.

#### **Invited Talks**

- 1.
- 2.

### **9. Conferences/Seminars/ Workshops attended**

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#### **Conferences**

UGC Sponsored International Conference on Nonlinear Physics: Theory and Experiment (NPTE-2016) organized by PG and Research Department of Physics 13-14 Dec. 2016

#### **Seminars**

1. International Conference on Perspectives in Vibrational Spectroscopy (ICOPVS 2010), 21-24 February 2010, Banaras Hindu University, Varanasi, India.
2. International Conference on Recent Frontiers in Applied Spectroscopy (ICORFAS 2010), 22-24, September 2010, Annamalai University, Tamilnadu, India.
3. International Congress on Nutrition in Cardiovascular Diseases, 15 & 16, November 2010 Annamalai University, Tamilnadu, India.
4. National Conference on Recent and Emerging Developments in Physics. 7-9th. January 2010. Womens Christian College Nagercoil, Tamilnadu.
5. National Conference on Nanophotonic Materials (NCNM) 2008. Cochin University of Science and Technology, Kochi, Kerala, India.

### **10. Research Guidance**

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#### **Ph.D.**

1. Anas Swalih P.K, Topic: Functionalization of Magnetic nanoparticle for biological applications, 2021, University of Cailiut
2. Sreeshna. T, Topic: enhancing antimicrobial efficiency of silver nanoparticles: theoretical and experimental studies 2020, University of Cailiut

### **11. Research Projects**

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#### **Major Projects**

#### **Minor Projects**

#### **Other Projects**

## 12. Career Advancemnt

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### Orientation/Induction Programme

1. MHRD sponsored Induction Programme, Department of Education Calicut University on 02-05-2018 to 31-05-2018, sponsored by MHRD (TLC) Under PMMMNMT

### Refresher

1. Refresher Course in Experimental Physics at Goa university on 12-11-2018 to 27-11-2018 sponsored by Indian Academy of Science

### Short-term Course

## 13. Conferences/Seminars/Workshops Organized

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1. International Conference on Theoretical and Experimental Physics 2020-ICTEP 2020-February 5-6, 2020.
2. UGC Sponsored National Conference on Modern Optics & Material Science (NCMOMS-2015), DECEMBER 17-18, 2015
3. Sculpting Light-Digital Holography Workshop sponsored by KSCSTE, Light logicsHolography and SPIE-USA,27-28 Feb 2018

## 14. Administrative Responsibilities (Govt, Quasi Govt, Universities)

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- 1.

## 15. Extension Activities (Administraion/Cocurricular)

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1. MemberNAAC steering Committie, Farook Collge
2. FIST Committie Joint Convenor, Farook Collge
3. DBT STAR College Department cordinator, Farook Collge
4. CPE. Department cordinator, Farook Collge

## 16. Membership in Professional Bodies

## 16. Awards / Prizes Conferred

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## 17. E-Learning materials produced

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1. .
2. .

## 18. Collaboration with Institution/Industry

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2. .

## 19. Author profiles and identifiers

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1. Web Page:
2. Linked in:
3. Google Scholar:
4. ORCHID ID:

## 20. Miscellaneous

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