**Dr. MANOJ NAGERI**

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# Assistant Professor

# Dept. Of Chemistry

**Sanatana Dharma College**

**Alappuzha 3, Kerala, India-688003**

**Nageri Illam**

**Pulpatta P.O. Manjeri, Malappuram, Kerala**

**India-676 123.**

**EDUCATION**

**Ph. D. Chemistry - May 2019**

University of Calicut

1. **Sc. Chemistry** (Analytical Chemistry) **- May 2009**

M.G. University, Kottayam

# AWARDS and FELLOWSHIPS

* CSIR - UGC - NET / JRF Fellowship - 2011
* College First in M.Sc. Analytical Chemistry - 2009

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| **WORK EXPERIENCE** |  | |
| Technical Assistant | : IISER, Thiruvananthapuram | 2010 - 2011 |
| Guest Faculty in Chemistry | : Govt. Women's Polytechnic  College, Kozhikode  : Govt. College, Malappuram | 2018 – 2019  2019-2021 |

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| **RESEARCH EXPERIENCE** | | |
| Research Project Staff | : Nanomaterials Group, C-MET,  Thrissur | 2011- 2012 |
| Ph. D. Research Fellow | : Nanomaterials Group, C-MET,  Thrissur | 2012 - 2018 |

# Ph. D. THESIS

“Influence of Morphology and Surface Modifications on the Photocatalytic Activity of Titania-based Nanotube arrays”

# RESEARCH INTERESTS

* Morphological and Defect related property variations in semi conductors and perovskites.
* Synthesis of nanomaterials having different morphology for (photo) Catalytic applications.
* Fabrication of novel heterojunctions for photocatalytic and sensor applications.
* Band-gap engineering of wide band-gap semiconductor oxides and ferroelectric materials.
* Fabrication of multi ferroic materials and modifications of wide band gap semiconductors for dilute magnetic semiconductors (DMS) and sensor applications.

# HANDFUL EXPERIENCE IN

* Preparation of semi conducting nano material and ferro electric materials through hydrothermal, anodisation and sol-gel methods.
* Characterisation study by using X-ray Diffractometer, UV Visible spectroscopy, X-ray photoelectron spectroscopy (XPS), Scanning electron microscopy, Raman Spectroscopy, Electron Paramagnetic Resonance Spectroscopy, Vibrating sample magnetometer, Photocatalytic characterisation through immersion type photo reactor.

# HANDFUL EXPERIENCE IN OPERATION OF

* Raman Microscope (Model-DXR, Thermo Scientific)
* TGA-DSC Analyser (Model-SDT Q600, TA Instruments)
* UV Visible Spectrometer (Model-JASCO-V-550, UV Vis Spectormeter)
* IR spectrometer (Model-Shimadzu, IR prestige 21)
* GCMS (Model-Shimadzu, QP 2010 plus)
* Zeta Potential- Particle Size Analyser (Model-NICOMP 380 ZLS)

# JOURNAL PUBLICATIONS

1. Titania nanotube arrays surface-modified with ZnO for enhanced photocatalytic applications, **Manoj Nageri**, Vijila Kalarivalappil, Baiju K Vijayan, V Kumar, Mater. Res. Bull. 77 (2016) 35-40
2. SnO2-loaded BaTiO3 nanotube arrays: fabrication and visible light photocatalytic application, **Manoj Nageri**, A B Shalet, V Kumar ,J. Mater. Sci: Mater. Electron. 28 (2017) 9770-9776
3. Manganese-doped BaTiO3 nanotube arrays for enhanced visible light photocatalytic applications, **Manoj Nageri**, Viswanathan Kumar, Mater. Chem. Phys. 213 (2018) 400-405
4. Stability studies of PbS sensitised TiO2 nanotube arrays for visible light photocatalytic applications by X-ray photoelectron spectroscopy (XPS), N B Rahna, Vijila Kalarivalappil , **Manoj Nageri** , Suresh C Pillai, Steven J Hinder , V Kumar, Baiju K Vijayan, Mater. Sci. Semicond. Process. 42 (2016) 303-310
5. Pd Loaded TiO2 Nanotubes for the Effective Catalytic Reduction of p-Nitro phenol, Vijila Kalarivalappil, C M Divya, W Wunderlich, Suresh C Pillai, Steven J Hinder, **Manoj Nageri**, V Kumar, Baiju K Vijayan, Catal. Lett. 146 (2016) 474-482

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# PATENT

Nano-Zinc oxide process of preparation and application thereof, **Nageri Manoj**, Kizhakekilikoodayil Vijayan Baiju, Viswanathan Kumar, file no-2348/DEL/2015, filing date-July 30, 2015, Granted on 25/11/2019

# CONFERENCE PRESENTATION

1. Participated and presented a poster-in Indo-US, international work shop on Nano structured Electronic Materials: Challenges & Relevance to electronics & energy research-2013, March (IUSWNM-2013) conducted by C-MET Thrissur, Children’s hospital Harvard USA, Northeastern University USA, Joint School of nanoscience & nanoengineering USA
2. Participated in the UGC sponsored graduate seminar on Advances in materials chemistry-December-2014 (AMC-2014) organized by the department of chemistry, university of Calicut
3. Participated and done oral presentation in National Seminar (Frontiers in chemical sciences FCS)- 2018, February conducted by Department of Chemistry, University of Calicut

# REFEREES

* + 1. **Dr. Viswanathan Kumar   
       Senior Scientist**

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# Dr. Suredran Parambadath Assistant Professor

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