

Radhika Panickar (Ph.D.)

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Education

Ph.D. (2021), Materials Science and Engineering,
National Institute of Technology, Calicut, India
M Tech (2012), Nanotechnology
VIT University, Vellore, India
B Tech (2009), Applied Electronics and Instrumentation
University of Kerala, India

PG Diploma in Counselling (2014), University of Kerala, India

Experience

2012-2016 Assistant professor in Electronics and Communication, University of Kerala,
India

Honor and Awards

“Young Researcher Award” at ICNAN’19, International conference (2019)

Research Interest

- Thin films
- Chemical vapor deposition & Physical vapor deposition
- Carbon materials- Carbon Spheres, Graphene and Polycrystalline Diamond thin films
- Synthesis and characterization of Nanomaterials
- Hybrid nanoparticles
- Nanocomposites
- Nanomaterials for Engineering applications

Book Chapter

1. **Radhika Panickar**, C B Sobhan and Sivaji Chakravorti, Simulation Studies on Optimizing the Substrate Temperature Using a Novel Spiral Filament in Hot Filament Chemical Vapor Deposition of Diamond Thin Films; Advanced Engineering Optimization Through Intelligent Techniques Select Proceedings of AEOTIT 2022 PP 533-545 Springer Nature Singapore **Book Edited by Ravipudi Venkata Rao and Jan Taler**

Published Journals and conferences

- ❖ **R Panickar**, C. B. Sobhan and Sivaji Chakravorti “*Highly Efficient Amorphous Carbon Spheres based Superhydrophobic and Superoleophilic Sponges for Oil/Water Separation*” **ACS Langmuir** **2021**, **37**, **42**, **12501–12511**.
- ❖ **R Panickar**, C. B. Sobhan, and Sivaji Chakravorti “*Improved tribological behavior of lubricating oil dispersed with hybrid nanoparticles of functionalized carbon spheres and graphene nanoplatelets*”. **Applied Surface Science** **540** (2021) **148402**.
- ❖ **R Panickar**, C. B. Sobhan, and Sivaji Chakravorti, “*Investigations on tribological properties of non-catalytic CVD synthesized carbon spheres in lubricant*” **Diamond & Related Materials** **106** (2020) **107834**.
- ❖ **R Panickar**, C. B. Sobhan, and Sivaji Chakravorti,” *Chemical Vapor Deposition Synthesis of Carbon Spheres: Effects of Temperature and Carrier Gas*” **Vacuum** **172** (2020) **109108**.
- ❖ **R Panickar**, Bala Praveen Chakkravarthy Raghupathy “*A Novel Nanocomposite Electrode for Amperometric Sensing of Glucose*”, **Journal of Electrochemical Society, ECS Electrochem. Lett.** **2012**, **Volume 1**, **Issue 6**, **Pages B5-B8**.
- ❖ **R Panickar**, C. B. Sobhan and Sivaji Chakravorti, “*Simulation Studies on the Optimizing the Substrate Temperature using a Novel Spiral Filament in Hot-Filament Chemical Vapor Deposition of Diamond Thin Films*”, International conference on Advanced Engineering Optimizing through Intelligent Techniques, **AEOTIT’22, SVNIT, Gujarat. 2022**
- ❖ **R Panickar**, C. B. Sobhan and Sivaji Chakravorti “*Investigations on Tribological Property of Non-catalytic CVD Synthesised Carbon Spheres in Lubricant*. **ICNAN’19, VIT University, Vellore**.
- ❖ **R Panickar**, C. B. Sobhan and Sivaji Chakravorti “*Substrate Temperature Optimization for Diamond Thin Film Synthesis using Hot-Filament Chemical Vapor Deposition*”, 8th International Conference on Modelling Simulation and Applied Optimization (ICMSAO) **ICMSAO ’19, Bahrain session. 2019**.
- ❖ **Radhika Panickar**, C. B. Sobhan and Sivaji Chakravorti “*Finite Volume Method for substrate optimization of Diamond thin films using HFCVD*”, International Workshop, **IW2DM ’19, IISER, Trivandrum, 2019 (Poster presentation)**.
- ❖ **Radhika Panickar**, “*A nanocomposite electrode for COD detection of wastewater*”, National conference in waste management by the state council of Kerala, **STIST Jan2015**
- ❖ **Radhika Panickar**, Bala Praveen Chakkravarthy Raghupathy, “*Electrodeposited nanocomposite for amperometric detection of Glucose, Sucrose, and Glycine by surface-modified glassy carbon electrode*”, **NMC 2012** International conference **IIT Bombay**.

- ❖ **Radhika Panickar, Bala Praveen Chakkravarthy Raghupathy**, “*Sensitive amperometric detection of glucose using nanocomposite electrode*”, The 3rd International Conference on Science, Engineering and Technology (SET), VIT University, Chennai.

