

# Global Scientific Guild Conference

## Program

### **3<sup>rd</sup> Global Webinar on Materials Science and Engineering**

**March 11-13, 2022**

**Conference Chairperson**



**Dr. Per Arvid Lothman**  
*Foviatech GmbH, Hamburg,  
Germany*

**Conference Co-Chairperson**



**Prof. J.C. Umavathi**  
*Gulbarga University,  
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# Day-1

March 11, 2022

Timing: 10:00-15:10 Greenwich Mean Time (GMT)

10:00-10:10 Introduction/Opening Ceremony

10:10-10:40 **Title: Potential of advanced membrane materials as alternative barriers against virus**

Prof. Per Arvid Löthman, Foviatech GmbH, Hamburg, Germany

10:40-11:15 **Title: Beyond Octave-Spanning Nonlinear Spectral Broadening in Silicon Nitride Slot Waveguide**

Prof. Yang Yue, Xi'an Jiaotong University, China

11:15-11:45 **Title: Aerogels: Sol-Gel Chemistry, Properties and Applications**

Dr. Vinayak G. Parale, Yonsei University, South Korea

11:45-11:50 Break

11:50-12:15 **Title: Resolution of the cationic distribution in Cu<sub>22</sub>Fe<sub>8</sub>Ge<sub>4</sub>S<sub>32</sub> by synchrotron resonant powder diffraction: A case study and guidelines for analogous compounds**

Dr. Laura Paradis-Fortin, Academia Sinica, Taiwan

12:15-12:45 **Title: Nanomaterials for biomedical imaging and cancer radiotherapy**

Dr. Gerard Tobias (ICMAB-CSIC), Barcelona, Spain

12:45-13:15 **Title: Electrically conducting micropolar nanofluid with heat source/sink over a wedge: Ion and Hall currents**

Prof. J.C. Umavathi, Gulbarga University, India

13:15-13:20 Break

13:20-13:55 **Title: Multicomponent High-Entropy Cantor alloys**

Prof. Brian Cantor, Oxford and Brunel Universities, UK

13:55-14:20 **Title: Electronic Grade 2D films for Emerging Micro-Devices Applications**

Dr. Xiangming Xu (KAUST), Saudi Arabia

14:20-14:55 **Title: Global Warming Due to Biomaterials ?**

Prof. Thomas J. Webster, Interstellar Therapeutics, USA

14:55-15:10 Panel Discussion

## Day 1 Ends

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# Day-2

March 12, 2022

Timing: 10:00-15:00 Greenwich Mean Time (GMT)

- 10:00-10:35** Title: **The Extended Galerkin/Rayleigh-Ritz Method for Approximate Solutions of Nonlinear Vibration Equations**  
Prof. Ji Wang, Ningbo University, China
- 10:35-11:00** Title: **Evaluation of 3D-printed recycled PEEK as main CubeSat structure material**  
Dr. Fahd Moumni, MicroOrbiter Inc., Tokyo, Japan
- 11:00-11:35** Title: **Lithium-ion batteries challenges for the 21st century**  
Prof. Rachid Yazami, Founding Director of KVI PTE LTD, Singapore
- 11:35-11:40** Break
- 11:40-12:05** Title: **Recent Advances in Oxygen Scavenger (OS) Additives to Increase the Circularity of Multilayer Packaging Films**  
Dr. Lucía Pérez Amaro, Laboratorio Materiali Polimerici Ecocompatibili - LMPE Srl S, Italy
- 12:05-12:35** Title: **Prospects and challenges for MXenes bioactivity in vitro**  
Prof. Agnieszka Maria Jastrzębska, Warsaw University of Technology, Poland
- 12:35-13:05** Title: **Mechano-electrically active biomaterials for cardiac tissue engineering**  
Dr. Clarisse Ribeiro, University of Minho, Portugal
- 13:05-13:10** Break
- 13:10-13:40** Title: **Design methodology for composite structures by controlling and optimizing the evolution of polymer properties during processing**  
Dr. Stephanie G Nunes, Riga Technical University, Latvia
- 13:40-14:10** Title: **The strategies to avoid constraints of the zinc-based alloys in absorbable stenting applications**  
Dr. Morteza S. Ardakani, Michigan Technological University, USA
- 14:10-14:40** Title: **Undoped and Ce-Doped NaSICON Enabled by Mechanical-Activation-Enhanced-Reaction**  
Prof. Shan-Ju Chiang, North Central College, USA
- 14:40-15:00** Panel Discussion

## Day 2 Ends

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# Day-3

March 13, 2022

Timing: 10:00-14:45 Greenwich Mean Time (GMT)

- 10:00-10:25** Title: **Shape Reversibility and the Role of Lattice Reactions in Shape Memory Alloys**  
Prof. Osman Adiguzel, Firat University, Turkey
- 10:25-10:55** Title: **Recycling of Post-Consumer Plastic Packaging Waste: Challenges and Opportunities**  
Prof. Mervat El-Hoz, CEO, Environmental Engineering Consulting, Lebanon
- 10:55-11:25** Title: **Mesophase Transition and Fire Retardancy Behaviour of Hexasubstituted Cyclotriphosphazene Molecules Containing Different Terminal Groups**  
Dr. Zuhair Jamain, Universiti Malaysia Sabah (UMS), Malaysia
- 11:25-11:30** Break
- 11:30-12:00** Title: **Hybrid Polymer Nanofiber-Based Triboelectric-Piezoelectric Hybrid Nanogenerators**  
Dr. Ayse Bedeloglu Bursa, Technical University, Turkey
- 12:00-12:25** Title: **Thermal analysis of a lithium-ion battery pack with hybrid thermal management system**  
Dr. Badr Eddine LEBROUHI , Université de Pau et des Pays de l'Adour, Pau, France
- 12:25-12:55** Title: **Failure assessment of steel pipes using non-standard ring specimens**  
Dr. Marko Rakin, University of Belgrade, Serbia
- 12:55-13:00** Break
- 13:00-13:30** Title: **Stereolithographic Additive Manufacturing of Ceramic Components with Mult-Dimensional Structures**  
Prof. Soshu Kiriara, Osaka University, Japan
- 13:30-14:00** Title: **Nanomaterials for Sensors**  
Prof. Valentyn Smyntyna, Odessa National I. I. Mechnikov University, Ukraine
- 14:00-14:25** Title: **Synthesis and Flash Sintering of Zirconium Nitride Powder**  
Dr. Suprabha Das, Florida International University, Miami, USA
- 14:25-14:45** Panel Discussion

## Day 3 Ends

**Next Event:**

**4<sup>th</sup> Global Webinar on  
Materials Science and Engineering  
*July 15-17, 2022***

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