

5th International Conference on

THEORETICAL, MATERIALS AND CONDENSED MATTER PHYSICS

November 26-28, 2018 | Los Angeles, USA

Day 1 November 26, 2018

Conference Hall: Moselle

08:00-08:45 Registrations

08:45-08:55 Opening Ceremony

Keynote Forum

08:55-09:00 Introduction

09:00-09:45 **Title: Optical Fourier holography with thin films of bacteriorhodopsin for cancer diagnostics**

D V G L N Rao, University of Massachusetts, USA

09:45-10:30 **Title: Nature has a powerful pick-up tool, supported by a simple universal mechanism, the Stark-effect Induced Gailitis resonance**

Chi Yu Hu, California State University, USA

Panel Discussion

Posters Display | Networking & Refreshment Break 10:30-10:50 @ Foyer

10:50-11:35 **Title: Advanced materials for solar photoelectrochemical fuel generation**

Oomman K Varghese, University of Houston, USA

11:35-12:20 **Title: Magnetars by condensed matter physics**

Qiu-he Peng, Nanjing University, China

12:20-13:05 **Title: Natural field: A link missing in contemporary physics**

Debabrata Saha, Independent Research Scientist, USA

Panel Discussion

Posters Display | Lunch Break 13:05-14:05 @ Foyer

Plenary Talk

14:05-15:05 **Title: Emergent magnetism in titanium nitride**

Barbara A Jones, IBM Research-Almaden, USA

Group Photo 15:05-15:10

Sessions: Condensed Matter Physics | Solid State Physics | Theoretical Physics | Organic Electronics | Nanomaterials and Nanotechnology

Session Chair: Debabrata Saha, Independent Research Scientist, USA

Session Co-chair: Jan Smotlakha, Joint Institute for Nuclear Research, Russia

Session Introduction

15:10-15:35 **Title: High efficiency organic photovoltaics: Current and beyond**

Sheng-Yung Chang, University of California Los Angeles, USA

15:35-16:00 **Title: Chromatic and polychromatic radiation for crystal orientation**

Danut Dragoi, Non-affiliated Senior Scientist, USA

Panel Discussion

Networking & Refreshment Break 16:00-16:20 @ Foyer

16:20-16:45 **Title: Estimating vibrational lifetime and boundary conductance**

Hari Datt Pandey, University of California Riverside, USA

16:45-17:10 **Title: Effect of the grain boundaries on the electronic and mechanical structure of graphene**

Jan Smotlakha, Joint Institute for Nuclear Research, Russia

17:10-17:35 **Title: Electronic, mechanical and thermoelectric properties of Gd-filled ternary skutterudites**

U P Verma, Jiwaji University, India

17:35-18:00 **Title: Structural and magnetic properties of $\text{Bi}_{0.80}\text{Ba}_{0.20}\text{Fe}_{1-x}\text{Ti}_x\text{O}_3$ ceramics prepared by planetary ball milling technique**

Feroz Alam Khan, Bangladesh University of Engineering and Technology, Bangladesh

Panel Discussion

Day 2 November 27, 2018

Conference Hall: Moselle

Keynote Forum

- 09:15-10:00 **Title: Chemical nanoanalyses of Si grain boundaries towards the fabrication of high-functional Si solar cells**
Yutaka Ohno, Tohoku University, Japan
- 10:00-10:45 **Title: Characterization of ferrite nanoparticles and application for theranostics**
Yuko Ichiyanagi, Yokohama National University, Japan

Panel Discussion

Networking & Refreshment Break 10:45-11:00 @ Foyer

- 11:00-11:45 **Title: CoFeNbZ (Z = Al, Si and In) quaternary heusler alloys – A first principle study**
Rita John, University of Madras, India
- 11:45-12:30 **Title: On the road to room-temperature superconductivity?**
Ivan Božović, Brookhaven National Laboratory, USA

Panel Discussion & Group Photo

Lunch Break 12:30-13:30 @ Foyer

- 13:30-14:15 **Title: Influence of Mn substitution on magnetoresistance and magnetic properties of $(\text{Fe}_{1-x}\text{Mn}_x)_{75}\text{P}_{15}\text{C}_{10}$ alloy ribbons**
Feroz Alam Khan, Bangladesh University of Engineering and Technology, Bangladesh

Plenary Talk

- 14:15-15:15 **Title: Implications of the link between the periodic table and the standard model**
John Owen Roberts, Independent Researcher, UK

Sessions: Condensed Matter Physics | Materials Physics | Nanomaterials and Nanotechnology

Session Chair: Barbara A Jones, IBM Research–Almaden, USA

Session Co-chair: Gennadiy Filippov, Chuvash State Pedagogical University, Russia

Session Introduction

- 15:15-15:40 **Title: Molecular dynamics investigation of surface potential and electro-kinetic phenomena at the amorphous silica/water interface**
Si-Han Chen, The Ohio State University, USA
- 15:40-16:05 **Title: Moldable soft polymers through topology**
Thomas E Kodger, Wageningen University & Research, The Netherlands

Panel Discussion

Networking & Refreshment Break 16:05-16:20 @ Foyer

- 16:20-16:45 **Title: Electronic properties of Mn-decorated silicene and other 2D materials**
Barbara A Jones, IBM Research–Almaden, USA
- 16:45-17:10 **Title: Density matrix in description of the collision of atomic particle with solid film**
Gennadiy Filippov, Chuvash State Pedagogical University, Russia
- 17:10-17:35 **Title: Seismic Imaging of soils for slope stability in Ngoketunja divison, North west region Cameroon**
Paul Leifeh Njuabeh, The University of Bamenda, Cameroon

Poster Presentation

- 17:35-18:00 **Title: Majority carrier modulation using contact area ratio between graphene and liquids for harvesting blue energy**
Ruey-Jen Yang, National Cheng Kung University, Taiwan

Panel Discussion

Day 3 November 28, 2018

Conference Hall: Moselle

Keynote Forum

- 09:00-09:45** **Title: Appearance of anisotropic optical absorption, ground state energy, and crystal growth of CdSe quantum dots adsorbed on the (001) and (102) surfaces of anatase-TiO₂**
Taro Toyoda, The University of Electro-Communications, Japan
- 09:45-10:30** **Title: Passage of accelerated high charged ions through a system of parallel thin films**
Gennadiy Filippov, Chuvash State Pedagogical University, Russia

Panel Discussion

Networking & Refreshment Break 10:30-10:50 @ Foyer

- 10:50-11:35** **Title: Amorphous magnetic films for spintronics**
Joseph Poon, University of Virginia, USA

Sessions: Condensed Matter Physics | Superconductivity and Superfluidity | Solid State Physics | Materials Physics

Session Chair: I Chávez, Universidad Nacional Autónoma de México, México

Session Co-Chair: Moussab Harb, King Abdullah University of Science and Technology, Saudi Arabia

Session Introduction

- 11:35-12:00** **Title: Cooper pairs in superconductivity in a generalized BEC theory**
I Chávez, Universidad Nacional Autónoma de México, México
- 12:00-12:25** **Title: Toward rational design of new photocatalytic materials for solar fuel generation using density functional theory**
Moussab Harb, King Abdullah University of Science and Technology, Saudi Arabia

Panel Discussion

Lunch Break 12:25-13:25 @ Foyer

- 13:25-13:50** **Title: Fabrication and characterization of copper doped cadmium sulphide thin film solar cell**
Sabur Abiodun Ayinde, The Federal Polytechnic, Nigeria
- 13:50-14:15** **Title: Determination of mechanical, structural and thermodynamic properties of half-heusler compound (Zirconium Lead Palladium) in solid state physics**
Ogundola Sunday, Federal College of Education, Nigeria
- 14:15-14:40** **Title: High temperature solar cells**
Dieter M Gruen, Dimerond Technologies, LLC, USA
- 14:40-15:05** **Title: Using the floquet-magnus and the Fermi expansion approaches to control the spin dynamics in solid-state nuclear magnetic resonance and beyond**
Eugene Stephane Mananga, The City University of New York, USA

Panel Discussion