



**Faculty of Engineering Shoubra**

**Laser Physics & Technology Unit**

**2<sup>nd</sup> International Conference in Material Science & Engineering**

**5-6 December 2020**

**Saturday the 5-12-2020**

**CHAIR: Prof. Dr. Amal Kasry**

<b>Time</b>	<b>Speaker</b>	<b>Title</b>
<b>11:00-11:10</b>	<b>Opening ceremony</b>	
<b>11:10-11:45</b>	<b>Prof. Dr. Mostafa A. El-Sayed</b> Laser Dynamics Laboratory, School of Chemistry and Biochemistry, Georgia Institute of Technology, U.S.A., 30332-0400	NEW NANOTECHNOLOGY TECHNIQUES FOR PRODUCING EFFICIENT FERTILIZERS IN THE U.S.A.
<b>11:45-12:20</b>	<b>Prof. Dr. Aliem Naqvi</b> , Center of nanotechnology, Applied physics department, faculty of engineering and technology.	Trends and Frontiers in Graphene-Based nanocomposites as potential material for their benign application.
<b>12:20-12:30</b>	<b>Break</b>	
<b>12:30-1:00</b>	<b>Prof. Dr. Lotfia M. El Nadi</b> ; Physics Dept., Laser Physics Lab., Faculty of Science, Cairo University, Giza, EGYPT.	High performance of commercial solar cells when stacked by crystalline p-n si nanowires.
<b>1:00-1:10</b>	<b>M. A. Tarek</b> ; Department of Physics, Faculty of Education, Ain Shams University, Roxy, 11341, Cairo, Egypt.	Axial deformation effects on hydrogen storage of Ni decorated (8,0) zigzag single-walled boron nitride nanotubes: a DFT study.
<b>1:10-1:20</b>	<b>Prof. Hanem Fathy Khater</b> ; Parasitology Department, Faculty of Veterinary Medicine, Benha University, Egypt.	Green Nanoparticles for Tick Control: A Review.
<b>1:20-1:30</b>	<b>Rasha M. Abd El Wahab</b> , Physical chemistry department, National Research Centre, Egypt.	Removal of Sodium and potassium by utilizing Titanium Phosphate nanoparticles
<b>1:30-1:40</b>	<b>Nayra A. M. Moussa</b> , Computational Chemistry Laboratory, Chemistry Department, Faculty of Science, Minia University, Minia 61519, Egypt.	Quantum mechanical investigation of tetrel...tetrel, tetrel...halogen, and halogen...halogen interactions: A comparative study of unconventional noncovalent interactions.
<b>1:40-1:50</b>	<b>A. Atta</b> , Radiation Physics Department, National Center for Radiation Research and Technology (NCRRT), Atomic Energy Authority (AEA), Cairo, Egypt.	Ion Irradiation Induced Modification on the Structural and surface Properties of Polymer Nanocomposites films.
<b>1:50-2:00</b>	<b>Dr. Nomery Hadia</b> ; Physics Department, college of science, Al-Jouf, Saudi Arabia	Synthesis, optical, structural, and electrical properties of single crystalline CdS nanobelts.
<b>2:00-2:10</b>	<b>M.A. Madshal</b> , Physics Department, Faculty of Science, Mansoura University, Mansoura, 35516, Egypt.	Influence of Cr ions on dielectric characteristics of SrO-P <sub>2</sub> O <sub>5</sub> glasses.
<b>2:10-2:20</b>	<b>Salwa M. El-Mesallamy</b> , Researcher at Egyptian petroleum Research institute (EPR).	Enhancement of thermal aging of composites and nanocomposites modified unsaturated polyester resin.



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<b>Time</b>	<b>Speaker</b>	<b>Title</b>
<b>11:00-11:05</b>	<b>Opening</b>	
<b>11:05-11:40</b>	Prof. Dr. Sultana Nahar, Ohio State University, Ohaio, USA.	Photo absorption of Lanthanides.
<b>11:40-12:15</b>	<b>Prof. Dr. Amal Kasry</b> ; Director; Nanotechnology Research Centre (NTRC), the British University in Egypt (BUE).	Improving the Optical Properties of Graphene for Biosensing Applications
<b>12:15-12:25</b>	<b>Break</b>	
<b>12:25-1:00</b>	<b>Prof. Dr. Walid Tawfik</b> , National Institute of Laser Enhanced Sciences (NILES), Cairo University, Cairo, Egypt	Spectroscopic study to assess the pollution with heavy metals in agricultural samples
<b>1:00-1:10</b>	<b>Fatma BEN Amor</b> ; University of Sousse, Laboratory of Energy and Materials (LR11ES34), Higher School of Science and Technology of Hammam Sousse, Street Lamine Abbassi, 4011, Hammam Sousse, Tunisia.	Performance enhancement of TiO <sub>2</sub> UV photodetector by plasmonic effect.
<b>1:10-1:20</b>	<b>Al-shimaa S. M. Rady</b> , Computational Chemistry Laboratory, Chemistry Department, Faculty of Science, Minia University, Minia 61519, Egypt	Quantum mechanical investigation of $\pi$ -hole interactions of Group III-VIII elements: A comparative study
<b>1:20-1:30</b>	<b>Mohamed Baz</b> ; Department of Entomology, Faculty of Science Benha University, Egypt.	Nanoparticles in the Fight against Mosquitoes and Mosquito-Borne Diseases.
<b>1:30-1:40</b>	<b>Chaima. Dhifallah</b> , University of Sousse- Laboratory of Energy & Materials (LabEM-LR11ES34), Rue Lamine Abbassi, 4011 Hammam Sousse, Tunisia	Differences in dielectric parameters between two type of sea bream used Bio-impedance spectroscopy.
<b>1:40-1:50</b>	<b>Ebtisam M. Z. Telb</b> , CompChem Lab, Chemistry Department, faculty of Science, Minia University.	Comparison of $\pm\sigma$ -hole and $^2R$ -hole interactions formed by tetrel-containing complexes: A computational study
<b>1:50-2:00</b>	<b>Ali B. Abou Hammad</b> , Solid State Physics Department, Physics Research Division, National Research Centre, 33 El Bohouth St., Dokki, Cairo, 12622, Egypt	Influence of NiO on structural, optical, and magnetic properties of Al <sub>2</sub> O <sub>3</sub> -P <sub>2</sub> O <sub>5</sub> -Na <sub>2</sub> O magnetic porous nanocomposites nucleated by SiO <sub>2</sub> .
<b>2:00-2:10</b>	<b>Gomaa A. M. Ali</b> , Chemistry Department, Faculty of Science, Al-Azhar University, Assiut, 71524, Egypt	Recycled Nanomaterials for Energy Storage (Supercapacitors) Applications: Waste to Wealt
<b>2:10-2:20</b>	<b>R. M. Ramadan</b> , Microwave Physics and Dielectrics Department, Physics Research Division, National Research Centre, 33 EL Bohouth St. Dokki, Giza 12622, Egypt	Structural, Optical and Dielectric properties of xLiF-(25-x)Li <sub>2</sub> O-75B <sub>2</sub> O <sub>3</sub> glasses doped with CuO.
<b>2:20-2:30</b>	<b>V.V. Tuchin</b> , Department of Optics and Biophotonics, Saratov State University, Saratov 410012, Russia	Magnetic particle trapping in a branched blood vessel in the presence of magnetic field.