

Graphene and Graphite main discussions during The World Conference on Carbon 2018

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The communications included in this topic dealt with aspects related to the preparation, modification, characterization and properties of both graphene and graphite, but also included works about some applications of these materials in different fields like, conversion and storage of energy, catalysis, medicine or biology, among others.

From the 89 works finally presented in this topic, 42 were presented in Tuesday's Poster Session and 47 as Oral Communications, in six sessions that took place from Tuesday to Friday. The Oral sessions were chaired by: Dr. Nidia C. Gallego from Oak Ridge National Laboratory (USA), Prof. Javier Narciso Romero from Alicante University (Spain), Prof. Milo Shaffer from Imperial College London (UK), Prof. Manuel J. Pérez-Mendoza from Granada University (Spain), Prof. Mauricio Terrones from Penn State University (USA), Dr. Wolfgang Maser from ICB-CSIC (Spain), Dr. Indrek Kulaots from Brown University(USA) and Dr. Luiz Depine de Castro President of the Brazilian Carbon Association.

Among the oral presentations, the following ones were selected as keynotes:

- "Rosin-mediated ultraclean transfer of graphene and related two dimensional materials" presented by Jinhong Du from the Institute of Metal Research, Chinese Academy of Science (China).
- "Doped graphene: synthesis and superior molecular sensing" presented by Mauricio Terrones from Penn State University (USA).
- "Just add water and table salt: new perspectives on the electrochemical exfoliation of high quality graphene" presented by José María Munuera Fernández from INCAR-CSIC (Spain).
- "Graphitization of activated carbon obtained from local biomass (babassu) and their electrochemical properties" presented by Bartolomeu Cruz Viana Neto from Universidad Federal de Piauí (Brasil).
- Nanographenes by solvent-free syntheses - the mechanochemical Scholl reaction" presented by Sven Grätz from the Technische Universität of Dresden (Germany).
- "Carbon-coupled plasmonic sensors: from quantum coupling to subwavelength resonant strain sensors" presented by Morteza Aramesh from ETH-Zurich (Switzerland).

Scientists from more than 20 countries, belonging to over 50 different Universities and Research Institutions, showed their work in the different topic sessions. Thanks to the great effort of all participants, chairpersons and speakers involved in oral and poster sessions, very interesting discussions were held throughout the week on the latest research being developed on graphene and graphite.

Some of the works presented in this topic are being included in the Special Issue "Graphite, Graphene, Advanced Carbon Materials and Nanostructured Carbon-Based Composites and Selected Papers from Carbon 2018" of *Nanomaterials* (MDPI Journal).