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TOPIC:

Graphene Nanobelts Films for Highly Sensitive, Transparent and Flexible Pressure and Strain Resistive Sensors

ABSTRACT:

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New nanostructured material, multi-layer graphene nanobelts, was used to form a thin conductive flexible transparent film used as sensitive layer in a resistive wearable sensor able to detect pressure and strain with high sensitivity and low power consumption.

PROFILE:

Stanislav A. Moshkalev (M`99) received the B.S. and M.S. degree in quantum electronics from St. Petersburg Polytechnic University, St. Petersburg, Russia, in 1975 and the Ph.D. degree in physics and chemistry of plasmas from A.F. Ioffe Physical-Technical Institute, Russian Academy of Sciences, St. Petersburg, Russia, in 1984.

Since 1984, he held research positions in several scientific institutions in Russia, UK and Brazil. Since 1999, he has been a Researcher and since 2010, an Associate Director of the Center for Semiconductor Components, at the UNICAMP - State University of Campinas, Brazil. He is the coeditor of one book, and the author of more than 65 articles, and 5 inventions. His research interests micro and nanofabrication and characterization, synthesis and characterization of carbon nanotubes and graphene, quantum dots, focused ion beam, AFM, Raman spectroscopy, plasmas for etching and deposition, lithography, thin films, chemical, optical and bio sensors with ultralow power consumption, MEMS and NEMS, microfluidics, novel electron devices (memory, phototransistors, sensors) based on nanostructured carbon materials.

Dr. Moshkalev is a member of IEEE, Brazilian Physical Society, Brazilian Microelectronics Society, and

Brazilian Carbon Association. He is currently a coordinator of the Cooperative Research Network in Nanoinstrumentation (Brazil, CNPq - National R&D Council) and of the Associated Nanotechnology Laboratory of the Ministry of Science, Technology and Innovations (Brazil). Dr. Moshkalev's awards and honors include the Researcher Fellowship from CNPq and the Distinguished Visiting Researcher Fellowship from IRCEP (the Queen's University of Belfast, UK).