

CURRICULUM VITAE

PERSONAL DATA:

Name: Alexander V. Melnikov
Date of Birth 2 February, 1990
Place of Birth Minsk , Belarus, USSR
Nationality: Belarus
Marital Status: Single
Business address: Belarusian State University, Research Institute for Nuclear Problems, 11 Bobruiskaya Str., app. 316 220030 Minsk, Belarus
Position: Junior researcher
Fax: +375-17 226 51 24
Tel: +375-29 505 51 47 (mobile)
Email: Alexander.Melnikov.v@gmail.com

EDUCATION:

- M. Sc. in Physics, June 2015, Belarus State University, Physical Department, Minsk, Belarus.

EXPERIENCE:

Institute for Nuclear Problems, Belarus State University, Minsk, Belarus

11/2013 – *Present* (Junior Researcher)

Specialization (*specify*)

- main field** electromagnetic waves interaction with condensed matter
- current research interest**

Theoretical research of electromagnetic response of carbon nanotubes (CNTs). Investigation of microwave and terahertz properties of carbon nanotube based polymer composite materials above percolation threshold and carbon nanotube thin films. Influence of electrical percolation between carbon nanotubes on electromagnetic properties of system containing CNTs: system of two CNTs, zero dimensional clusters of CNTs, one dimensional chain of CNTs and third dimensional materials. Electromagnetic response of defective CNTs.

Electrical transport in nanoscale systems, electron tunneling, Landauer formula.

INTERNATIONAL RESEARCH GRANTS (on current research activity):

- **Fundamental and Applied Electromagnetics of Nano-Carbons**, EU FP7 project FP7- 318617 FAEMCAR, Call ID FP7-PEOPLE-2012-IRSES, 2012-2017, Principal Researcher: **Ph. Lambin** (Facultes Universitaires Notre-Dame de la paix de Namur, Belgium), **team leaders:** Y. Banis (Vilniaus Universitetas, Lithuania), S. Bellucci (Istituto Nazionale di Fisica Nucleare, Frascati, Italia), L. P. Biró (Research Centre for Natural Sciences, Hungarian Academy of Sciences, Budapest, Hungary), L.A. Chernozatonskii (Institute for Biochemical Physics RAS, Moscow, Russia), G. I. Dovbeshko (Institute of Physics, NASU, Kiev, Ukraine), P. Kuzhir (INP BSU).
- **Nano-Thin and Micro-Sized Carbons: Toward Electromagnetic Compatibility Application**, project FP7-610875 NAMICEMC, Call ID FP7-PEOPLE-2013-IRSES, 2013-2017, Principal Researcher: A. Celzard (ENSTIB, Universite de Lorraine, Epinal, France), team leaders: S. Bellucci (Istituto Nazionale di Fisica Nucleare, Frascati, Italia), P. Kuzhir (INP BSU).
- **Collective Excitations in Advanced Nanostructures** Project ID 644076 Call H2020-MSCA-RISE-2014 Programme H2020 CoExAN
- **Erasmus+** Programme, Inter-institutional agreement between Namur University, Belgium and Belarusian State University 2016-2018 (Researchers in charge: Prof. Ph.Lambin and Dr. P.Kuzhir)

PUBLICATIONS

1. M.V. Shuba, A.V. Melnikov, A.V. Paddubskaya, P.P. Kuzhir, S.A. Maksimenko, C. Thomsen, The role of finite size effects in the microwave and sub-terahertz electromagnetic response of multiwall carbon nanotube based composite: Theory and interpretation of experiment, **Phys. Rev. B** **88**, 045436 (8pp) – **Published 25 July 2013** DOI: 10.1103/PhysRevB.88.045436 [[BY-NanoERA](#), [FAEMCAR](#), [CACOMEL](#), [F12R-030](#)].