

BY-NanoERA

(Institutional Development of Applied Nanoelectromagnetics: Belarus in ERA Widening)

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Science & Technology Park "Metolit" at Belarusian National Technical University.

We participate as a partner (the INFN unit) to the Coordination and support actions of the FP7-INCO-2010-6. BY-NanoERA has a duration of 36 months and started its activities on 1st January 2011. The consortium binds together four Universities, two Research Organizations and an industry (Science & Technology Park).

Project objectives:

The main objectives of the project BY-NanoERA are to prove necessity and promising capability of nanoelectromagnetics in the core objective of FP7 Theme 4 'Nanosciences, Nanotechnologies, Materials and new Production Technologies – NMP' and to develop a concept of nanoelectromagnetics as a perspective direction in NMP. We also wish to establish network with research centers in Member States or Associated Countries in the field of applied nanoelectromagnetics aimed with the progress in solving concrete scientific problems and submission of joint research projects, as well as to organize a set of workshops and seminars on nanoelectromagnetics.

Publications by LNF Authors in the Year 2012

Paddubskaya, D. Bychanok, A. Plyushch, P. Kuzhir, A. Nemilentsau, S. Maksimenko, S. Bellucci, L. Coderoni, F. Micciulla, I. Sacco, G. Rinaldi, Epoxy Resin/SWCNT Shielding Paint for Super-High-Frequency Range, *J. Nanoelectronics and Optoelectronics*, 7(1), 81-86 (2012).

Plyushch A., Paddubskaya A., Kuzhir P., Maksimenko S., Coderoni L., Micciulla, F., Sacco I., Bellucci S., Nanocarbon modified epoxy resin and microwaves, Fullerenes, Nanotubes, and Carbon Nanostructures, 20 (4-7), 496-501, 2012, DOI: 10.1080/1536383X.2012.655666.

J. Macutkevicius, D. Seliuta, G. Valusis, R. Adomavicius, P. Kuzhir, A. Paddubskaya, M. Shuba, S. Maksimenko, L. Coderoni, F. Micciulla, I. Sacco and S. Bellucci, Terahertz time domain spectroscopy

of epoxy resin composite with various carbon inclusions, *Chemical Physics*, Vol. 404, pp 129-135, 24 August 2012, DOI: 10.1016/J.CHEMPHYS.2012.02.002.

P. Kuzhir, A. Paddubskaya, M. Shuba, S. Maksimenko, A. Celzard, V. Fierro, G. Amaral-Labat, A. Pizzi, J. Macutkevic, G. Valusis, J. Banys, S. Bistarelli, M. Mastrucci, F. Micciulla, I. Sacco, S. Bellucci, Electromagnetic shielding efficiency in Ka-band: carbon foam versus epoxy/CNT composites, *Journal of Nanophotonics*, 6(1), 061715(18) 2012 DOI: 10.1117/1.JNP.6.061715.

P. Kuzhir, A. Paddubskaya, M. Shuba, S. Maksimenko, A. Celzard, V. Fierro, G. Amaral-Labat, A. Pizzi, J. Macutkevic, G. Valusis, J. Banys, S. Bistarelli, M. Mastrucci, F. Micciulla, I. Sacco, S. Bellucci, Electromagnetic shielding efficiency in Ka-band: carbon foam versus epoxy/CNT composites, *Journal of Nanophotonics*, 6(1), 061715(18) 2012 DOI: 10.1117/1.JNP.6.061715.

P. Kuzhir, A. Paddubskaya, M. Shuba, S. Maksimenko, A. Celzard, V. Fierro, G. Amaral-Labat, A. Pizzi, J. Macutkevic, G. Valusis, J. Banys, S. Bistarelli, M. Mastrucci, F. Micciulla, I. Sacco, S. Bellucci, Electromagnetic shielding efficiency in Ka-band: carbon foam versus epoxy/CNT composites, *Journal of Nanophotonics*, 6(1), 061715(18) 2012 DOI: 10.1117/1.JNP.6.061715.

List of Conference Talks by LNF Authors in the Year 2012

S. Bellucci, P.P. Kuzhir, S.A. Maksimenko, K.N. Lapko, V.A. Lomonosov, O.A. Ivashkevich, A.I. Lesnikovich, P.V. Sedyshev, V.N. Shvetsov, A.S. Kurilin, L. Sartinska, P. Silenko, G. Frolov, Yu. Solonin, New Materials for Neutron Shielding Based on Boron Enriched Unfired Phosphate Ceramics, International Conference Functional Materials and Nanotechnologies FMNT – 2012, Institute of Solid State Physics, University of Latvia, Riga, Latvia, April 17 - 20, 2012, Book of abstract , [ww.fmnt.lu.lv](http://www.fmnt.lu.lv)

Kuzhir, P.P.; Maksimenko, S. A.; Paddubskaya, A. G.; Celzard, A.; Fierro, V.; Basso, M.-C.; Pizzi, A.; Macutkevic, J.; Valusis, G.; Ivanov, M.; Banys, J.; Bellucci, S., Highly porous conducting carbon foams for electromagnetic applications, International Symposium on Electromagnetic Compatibility EMC EUROPE 2012, September 17-21, 2012, Rome, Italy, <http://www.emceurope2012.it/>

P. Kuzhir, A. Paddubskaya, S. Maksimenko, A. Celzard, V. Fierro, G. Amaral-Labat, A. Pizzi, J. Macutkevic, G. Valusis, M. Ivanov, J. Banys, S. Bellucci, Highly porous conducting carbon foams for electromagnetic applications , ID: 162, International symposium EMC Europe 2012, Rome, Italy, 17-21 September, 2012

S. Bellucci, I. Sacco, F. Micciulla, P. Kuzhir, A. Paddubskaya, S. Maksimenko, A. Celzard, V. Fierro, Microwave probing of composites based on exfoliated graphite and nanocarbons, International workshop Nanoscience and nanotechnology 2012, NN2012, Frascati Italy October 1-4, 2012