CNR IMM-Bologna

Università dell'Aquila

A Multidsciplinary and Multisectorial European Workshop on Synthesis, Characterization and Technological Exploitation of Graphene

15-18 May 2011
Gran Sasso National Laboratories
Assergi - L'Aquila, Italy

Workshop Program

Updated May 14th 2011

GraphITA

http://graphita.bo.imm.cnr.it

Sunday, May 15th	
09:30	**REGISTRATION**
12:30	**LUNCH**
14:00	INSTITUTIONAL GREETINGS **Lucia Votano** - Director fo the INFN Gran Sasso National Laboratory **Marcello Alecci** - University of L'Aquila Rector's Delegate **Paola Inverardi** - Head of the Science Faculty - University of L'Aquila **Sandro Santucci** - Director of Physics Department - University of L'Aquila **Pierluigi Pezzopane** - Representative of L'Aquila City Council
14:15	OPENING REMARKS **Vittorio Pellegrini**
14:30	"*European Cooperation in Science and Technology - COST*" **Prof. Francesco Fedi** President of the COST Office Association and past COST President (2004-2010)
14:45	SPECIAL OPENING LECTURE: **Konstantin Novoselov**
A. Growth and Synthesis Chairs: Rita Rizzoli, Luca Ottaviano	
15:45	INVITED: **A. Pénicaud** - *Thermodynamically Stable Graphene Solutions.*
16:15	"*GRAPHENE FLAGSHIP: New Opportunities for European Research*" **Vincenzo Palermo**
16:30	INVITED: **S. Lizzit**, P. Lacovig, G. Zampieri, L. Petaccia, R. Larciprete, E. D. L. Rienks, G. Bihlmayer, M. Pozzo, D. Alfè, A. Baraldi, Ph. Hofmann : *Graphene on Metal Surfaces: Growth and Electronic Properties by Core Level Photoemission.*
17:00	**Coffee Break**
17:30	A1 - **M. Choucair**, P. Thordarson and J.A. Stide : *Gram-Scale Production of Graphene Based on Solvothermal Synthesis.*

Sunday, May 15th	
17:45	A2 - **G. De Bellis**, F. Ruggeri, A. Broggi, A. Tamburrano, M.L. Santarelli, and M.S. Sarto : *Effect of the Synthesis Parameters on the DC Resistance of Graphite Nanoplatelets Thick Films*.
18:00	A3 - **S. Malik**, A. Vijayaraghavan, R. Erni, K. Ariga, I. Khalakhan and J.P. Hill : *A Chemists Method for Making Pure Clean Graphene.*
18:15	A4 - **L. Baraton**, Z. He, C.S. Lee, J.-L. Maurice, C.S. Cojocaru, Y.H. Lee and D. Pribat : *HRTEM Study of Graphene Growth Mechanism on Nickel Thin Films.*
18:30	A5 - **C. Hwang**, K.J. Yoo, S.J. Kim, E.K. Seo, W. Kim and L. P. Biro : *Initial Growth of Graphene on Cu Substrate.*
18:45	A6 - **M. Kakati** and N. Aomoa : *Synthesis of Stacked Graphene Sheets by a Supersonic Thermal Plasma Expansion Technique and the Affect of Sample Collection Chamber Pressure.*

Monday, May 16th	
09:00	OPENING LECTURE: **M. Katsnelson** - Graphene: CERN at the desk
B. Investigation of fundamental physical properties Chairs: Vittorio Pellegrini, Maurizio De Crescenzi Elisa Molinari, Alberto Morgante	
09:30	INVITED: **M. Polini,** S.H. Abedinpour, G. Vignale, A. Principi, W.-K. Tse, and A.H. MacDonald : *Drude weight, plasmon dispersion, and a.c. conductivity in doped graphene sheets.*
10:00	B1 - **J.M. Poumirol**, W. Escoffier, A. Kumar, C. Faguerias, D.P. Arovas, M. Fogler, P. Guinea, S. Roche, M. Goiran and B. Raquet : *Integer Quantum Hall Effect in Trilayer Graphene*.
10:15	B2 - Keynote Speaker : **A. Lanzara** - *Dirac Fermions in Freestanding and Epitaxial Graphene.*
10:45	B3 - **I. Deretzis** and A. La Magna : *Multiscale Investigation of the Structural, Electronic and Transport Properties of Pure and Intercalated Graphene on SiC Substrates*.
11:00	**Coffee Break**
11:30	INVITED: **L. Colombo** - *Elastic Properties of Hydrogenated Graphene*.
12:00	B4 - **D. Prezzi**, D. Eom, M.S. Hybertsen, T.F. Heinz, and G.W. Flynn : *Edge Effects in Graphene Nanoislands on Co(0001) Probed by STM Measurements and First Principles Calculations*.

Monday, May 16th	
12:15	INVITED: **K. Horn** - *Electronic structure and many body effects in graphene studied by angle-resolved photoemission*.
12:45	B5 - **E. Cappelluti**, L. Benfatto, and A.B. Kuzmenko : *Tuning Infrared Phonon Anomalies in Optical Conductivity of Bilayer Graphene: Matching Theory and Experiments.*
13:00	**LUNCH**
14:30	B6 - M. Amado, E. Diez, **F. Rossella**, V. Bellani, D. López-Romero and D K. Maude : *Metal-Insulator Transitions in Graphene*.
14:45	B7 - **P.Y. Solane**, N. Ubrig, S. George, P. Plochocka, M. Potemski, O. Portugall, C. Berger, W.A. De Heer : *Cyclotron Resonance of Multi-Layered Epitaxial Graphene under Very High Magnetic Field.*
15:00	B8 - Keynote Speaker : **G. Profeta** - *How to Make Graphene Superconducting.*
15:30	B9 - **N. Bajales**, D. Löffler, P. Brenner, A. Böttcher, M. Kappes, J. Ferrón : *Fabrication and Spectral Characterization of Tailored Nanographene Sheets.*
15:45	B10 - D. Kim, J. Yang, and **J. Hong** : *Spin Switching in Co/Graphene/Ni*.
16:00	B11 - P. Vogt, P. De Padova, C. Quaresima, B. Aufray and **G. Le Lay** : *Epitaxial silicene.*
16:15	**Coffee Break**
C. Structuring and tailoring of electronic and transport properties Chairs: Carlo Mariani, Chris Ewels	
16:30	INVITED: **R. Martinazzo**, S. Casolo and G. F. Tantardini - *The Effect of Atomic-Scale Defects and Dopants on Graphene Electronic Structure*.
17:00	C1 - **R. Ribeiro** : *Unveiling the Landau Levels Structure of Graphene Nanoribbons*.

Monday, May 16th	
17:15	C2 - Nano-TP Keynote Speaker : **A.V. Krasheninnikov**, J. Kotakoski, O. Lehtinen, H. Ålhgren, K. Nordlund, J. Keinonen, N. Berseneva, K. Saloriutta, A.P. Jauho, U. Kaiser, J.C. Meyer, C.H. Jin, K. Suenaga, O. Cretu, J.A. Rodriguez-Manzo, F. Banhart, and R.M. Nieminen - *Tailoring the Atomic Structure and Electronic Properties of Carbon and Boron-Nitride Nanomaterials Using Electron and Ion Irradiation.*
17:45	C3 - **L. Covaci** and F. Peeters : *Proximity Effect in Single and Multi-Layer Strained Graphene.*
18:00	C4 - Keynote Speaker : **A.H. Mac Donald** - *Three Surprises in Graphene.*
18:45	**POSTER SESSION N.1** (Sessions A,B)

Tuesday, May 17th	
09:00	OPENING LECTURE: **Andrea C. Ferrari** - *Raman Spectroscopy and Photonics of Graphene.*
C. Structuring and tailoring of electronic and transport properties Chair: Arkady Krasheninnikov	
09:30	INVITED: **W. Escoffier** - *High Field Quantum Hall Effect in Disordered Graphene Near the Dirac Point.*
10:00	C5 - **C. Soldano**, I. Kholmanov, E. Dujardin, G. Faglia and G. Sberveglieri : *Catalytic CVD of Graphene on Graphite and Resist-free Method for Multielectrodes Devices.*
10:15	C6 - Nano-TP Keynote Speaker : A. Santana, A. Chuvilin, A.N. Khlobystov, U. Kaiser, and **E. Bichoutskaia** - *Transformation of Structure at the Nanoscale: Theory and Atomic Imaging.*
10:45	C7 - **S. Casolo**, R. Martinazzo and G.F. Tantardini : *A New Wide Band Gap Form Of Hydrogenated Graphene.*
11:00	**Coffee Break**

Tuesday, May 17th	
D. Electronic and opto-electronic nanostructured devices: design and applications Chairs: Vito Raineri, Vojislav Krstic	
11:30	INVITED: **C. Dimitrakopoulos**, A. Grill, T.J. McArdle, Y.M. Lin, Z. Liu, D. Pfeiffer, R. Wisnieff and Ph. Avouris - *Optimization of Wafer-Scale Epitaxial Graphene on SiC for RF Applications.*
12:00	D1 - S. Santandrea, F. Giubileo, **V. Grossi**, S. Santucci, M. Passacantando, T. Schroeder, G. Lupina, and A. Di Bartolomeo : *Field Emission from Single and Few-Layer Graphene Flakes.*
12:15	D2 - Nano-TP Keynote Speaker : **V. Krstic** - Magneto- and Spin-Transport in Graphene Devices.
12:45	D3 - **F. Dominguez-Adame**, J. Munárriz, and A.V. Malyshev : *Towards a Graphene-Based Quantum Interference Device.*
13:00	INVITED: **F. Giannazzo**, S. Sonde, C. Vecchio, E. Rimini and Vito Raineri - *Electronic Properties of Graphene with Nanoscale Lateral Resolution*.
13:30	**LUNCH**
14:30	INVITED: **A. Morpurgo** - *Dirac Fermions in Graphene and Topological Insulators.*
15:00	D4 - **B. Szafranek**, D. Schall, M. Otto, D. Neumaier, and H. Kurz : *High On-Off Ratios in Bilayer Graphene Field Effect Transistors Realized by Surface Dopants.*
15:15	D5 - G.P. Veronese, A. Liscio, E. Treossi, F. Suriano, F. Rossella, V. Bellani, Paolo Samorí,V. Palermo, **R. Rizzoli** : *Charge Transport in Graphene-Polythiophene Blends by Kelvin Probe Force Microscopy and FET Characterizations.*
15:30	INVITED: **I. Vobornik** - *Electronic Properties of Graphene on Metallic and Semiconducting Surfaces.*
16:00	**Coffee Break**
16:30	D6 - **C. Cocchi**, D. Prezzi, A. Ruini, M.J. Caldas and E. Molinari: *Designing All-Graphene Nano-Junctions by Edge Functionalization: Optics and Electronics.*
16:45	D7 - **A. Candini**, C. Alvino, S. Klyatskaya, M. Ruben, W. Wernsdorfer, M. Affronte: *Hybrid Graphene - Molecular Magnet Devices for Spintronics.*

Tuesday, May 17th	
17:00	D8 - Keynote Speaker : **A. Giuliani**, V. Mastropietro, M. Porta - *Lattice gauge theory of graphene.*
E. Mechanical, chemical and biological sensing: devices and applications Chairs: Vittorio Bellani, Girolamo Di Francia	
17:30	INVITED: **C. Galiotis**, G. Tsoukleri, O. Frank, K. Papagelis, J. Parthenios and K. S. Novoselov - *Deforming Single- and Multi-Layer Graphenes in Tension and Compression*.
18:00	E1 - **T. Polichetti**, E. Massera, M.L. Miglietta, I. Nasti, F. Ricciardella, S. Romano and G. Di Francia : *Chemically Derived Graphene For Sub-ppm Nitrogen Dioxide Detection*.
18:15	E2 - **F. Ricciardella**, I. Nasti, T. Polichetti, M.L. Miglietta, E. Massera, S. Romano and G. Di Francia - *UV Lithography On Graphene Flakes Produced by Highly Oriented Pyrolitic Graphite Exfoliation Through Polydimethylsiloxane Rubbing.*
18:30	
18:45	**POSTER SESSION N.2** (Sessions C,D,E,F,G,H)

21:00	**SOCIAL DINNER**

NOTE: The Social Dinner is *not included* in the conference fees. Tickets for the social dinner will be available for purchase at the registration desk during the workshop.

Wednesday, May 18th	
09:00	OPENING LECTURE: **Alexander Tzalenchuk** - *Graphene: Setting New Standards.*
F. Energy storage and harvesting: devices and applications Chairs: Vittorio Bellani, Girolamo Di Francia	
09:30	INVITED: **L. Valentini** - *Incorporation of Reduced Graphene Oxide Sheets Into Organic Media for the Realization of Conducting and Photoresponsive Nanocomposites.*
10:00	F1 - **S. Del Gobbo**, P. Castrucci, M. Scarselli, L. Camilli, M. De Crescenzi, C. L. Sun : *Light Harvesting Properties Of Graphene Oxide Nanoribbons On Silicon.*
10:15	F2 - **E. Maccallini**, A. Policicchio, R.G. Agostino, P.N. Trikalitis, G. Froudakis, P. Rudolf, E.K. Diamanti, A. Enotiadis, D. Gournis : *Unusual Hydrogen Adsorption Properties of Novel Pillared Graphene Materials.*
G. Processes Chairs: Vincenzo Palermo, Vittorio Morandi	
10:30	INVITED: **C. Coletti**, C. Riedl, K.V. Emtsev, S. Forti, A.A. Zakharov, U. Starke - *Tailoring the electronic structure of epitaxial graphene on SiC(0001): transfer doping and hydrogen intercalation.*
11:00	G1 - **R. Larciprete**, A. Baraldi, P. Lacovig, S. Gardonio and S. Lizzit : *Functionalization of Graphene with Atomic Oxygen.*
11:15	**Coffee Break**
11:45	G2 - Nano-TP Keynote Speaker : T.J. Booth, F. Pizzocchero, H. Andersen, T.W. Hansen, J.B. Wagner, J.R. Jinschek, R.E. Dunin-Borkowski, O. Hansen, and **P. Boggild** - *Cutting of Suspended Graphene by Nanoparticles: Nanoscale Pac-Man Live in TEM.*
12:15	G3 - **M. Bruna**, B. Massessi, A. Battiato, E. Vittone and S. Borini : *Synthesis and Properties of Monolayer Graphene Oxyfluoride.*
12:30	G4 - **M. Riccò**, D. Pontiroli, M. Mazzani, M. Choucair, J.A. Stride, O.V. Yazyev : *MuSR Study of Hydrogen Interactions with Defective Graphene.*
12:45	INVITED: **P. Pingue**, V. Pellegrini, V. Tozzini, M. Polini, S. Roddaro, V. Piazza, S. Goler, S. Heun, C. Coletti, A. Bifone and F. Beltram - *Graphene@NEST: Ongoing Research Activities on Graphene and Artificial Graphene.*

Wednesday, May 18th	
13:15	G5 - **A. Mariani**, V. Alzari, D. Nuvoli, S. Scognamillo, L. Valentini, S. Bittolo Bon, M. Piccinini, P. Innocenzi, L. Malfatti, D. Marongiu, G. Malucelli : *Obtainment of High Concentration of Graphene and Direct Preparation of its Polymer Nanocomposites.*
13:30	**LUNCH**
14:30	G6 - Nano-TP Keynote Speaker : **M. Ferreira** - *Graphene-Based Spin Current Waveguides: a Theoretical Framework.*
15:00	G7 - C. Vallés, P. Jiménez, E. Muñoz, A.M. Benito and **W.K. Maser** : *Simultaneous Reduction of Graphene Oxide and Polyaniline: Doping Assisted Formation of a Solid State Charge-Transfer Complex.*
15:15	G8 - **M. Tommasini**, C. Castiglioni, G. Zerbi : *Multi-Wavelength Raman Study of Ball-Milled Graphite.*
H. Chemistry on graphene Chairs: Vittorio Morandi, Luca Ottaviano	
15:30	H1 - Nano-TP Keynote Speaker : **R. Erni**, M. D. Rossell, M.-T. Nguyen, S. Blankenburg, D. Passerone, P. Hartel, N. Alem, K. Erickson, W. Gannett, A. Zettl - *Stability and Dynamics of Adatoms and Ad-Molecules on Graphene Studied by Atomic Resolution Transmission Electron Microscopy.*
16:00	H2 - A. Penco, T. Svaldo-Lanero, M. Prato, R. Rolandi, M,. Canepa, **O. Cavalleri** : *Graphite Nanopatterning Through Interaction With Macromolecules.*
16:15	H3 - Nano-TP Keynote Speaker : **C.P. Ewels**, P. Wagner, V. Ivanovskaya, P. R. Briddon - *Buckling, Folding and Rippling of Graphene Nanoribbon Edges.*
16:45	H4 - **E. Treossi**, A. Liscio, M. Melucci, G.P. Veronese, J.M. Mativetsky, R. Rizzoli, P. Samorì and V. Palermo : *Covalent and Supramolecular Functionalization of Graphene for Electronics Applications.*
17:00	H5 - **M. Quintana**, A. Montellano, X. Ke, G. Van Tendeloo, C. Bittencourt, and M. Prato : I*dentifying Reactive Sites on Graphene Sheets Against 1,3-Dipolar Cycloaddition and Amidation Reactions.*
17:15	H6 - **M. Cardinali**, L. Valentini, and J. M. Kenny: *Effects of Radiofrequency Plasma Treatment on Mechanically Exfoliated Graphene Oxide Platelets.*
17:30	CONCLUDING REMARKS **Elisa Molinari**

POSTER SESSION N. 1
(Monday May 16th)

Session A. Growth and Synthesis

PA1 - **P. De Marco**, M. Nardone, A. Del Vitto, M. Alessandri, S. Santucci, L. Ottaviano : *Rapid Identification of Graphene Flakes: Alumina Does it Better*.

PA2 - **R. Giorgi**, Th. Dikonimos, M. Falconieri, S. Gagliardi, L. Giorgi, N. Lisi, P. Morales, L. Pilloni, and E. Salernitano : *Synthesis of Graphene Films on Copper Substrates by CVD of Different Precursors*.

PA3 - **P. De Marco**, L. Ottaviano, S. Santucci, Rozitsa Yakimova, O. Kazakova : *Morphology and Force Spectroscopy of Epitaxial Graphene Grown on Si- and C-faces of SiC*.

PA4 - M. Otto, D. Schall, B.N. Szafranek, **D. Neumaier** and H. Kurz : *Graphene Synthesis Using Solid Carbon Sources.*

PA5 - **D. Pontiroli**, Mauro Riccò, Marcello Mazzani, Stephane Rols and Mohammad Choucair : *Synthesis of Gram-Scale Graphene for Energy-Storage Applications.*

PA6 - **M. Rybin**, M. Garrigues, A. Pozharov, E. Obraztsova and P. Viktorovitch : *CVD Method for Graphene Synthesis and Enhancement of Its Optical Properties by Combination With Photonic Crystals*.

PA7 - **A. Talyzin** : *Structural Study of Graphite Oxide Hydration: Effects of Temperature and Pressure*.

PA8 - **P. Umek**, A. Gloter, C. Bittencourt, A.P. Hitchcock, E. Nafi, C. Díaz-Guera, J. Piqueras, M. Pregelj, P. Cevc, C. Navio and D. Arcon : *Synthesis and Characterization of Sodium Titanate Nanostructures Doped with Cu2+, Cr3+, Co2+ Ions and Ag Nanoparticles*.

PA9 - C. Vecchio, **F. Giannazzo**, C. Bongiorno, M. Rambach, R. Yakimova, E. Rimini, V. Raineri : *Growth Mechanisms of Epitaxial Graphene on Off-Axis 4H-SiC (0001) and Nano/Micro-Scale Electrical Characterization.*

Session B. Investigation of fundamental physical properties

PB1 - F. Hauquier, D. Alamarguy, **L. Baraton**, P. Viel, S. Noël, A. Filoramo, V. Huc, F. Houzé and S. Palacin : *Conductive-Probe AFM Characterization of Graphene Sheets Chemically Grafted on Gold Surfaces*.

PB2 - **S. Bellucci**, A. Malesevic, F. Micciulla, I. Sacco, R. Kemps, A. Vanhulsel and C. Van Haesendonck : *Electron Emission from Vertically Aligned Few-Layer Graphene and Carbon Nanotubes: a Comparative Study*.

PB3 - **T. Burnett**, R. Yakimova, O. Kazakova : *Local Electrical Property Mapping in Epitaxial Graphene Using Electrostatic Force Microscopy.*

POSTER SESSION N. 1 (Monday May 16th)
PB4 - M.G. Donato, **G. Faggio**, F. Bonaccorso, D. Alfieri, S. Santangelo, C. D'Andrea, B. Fazio, P.G. Gucciardi, A.C. Ferrari, O. M. Maragò, and G. Messina : *Raman Optical Trapping of Graphene*.
PB5 - **N. Kuganathan**, T.-Y. Chen, Y.X. Thong, M.B. Chan-Park, E. Bichoutskaia and L.-J. Li : *Non-Destructive Differentiation Between Metallic and Semiconducting Single-Walled Carbon Nanotubes on Substrate*.
PB6 - **D. Lapitski**, P.J. Dellar : *Quantum Lattice Boltzmann Simulation of Charge Carriers in Graphene*.
PB7 - V. Mastropietro, A. Giuliani, **M. Porta** : *Exact Renormalization Group for Graphene: Beyond the Dirac Approximation.*
PB8 - **Z.L. Miskovic** : *Plasmon Excitations in Graphene using Electron Energy Loss Spectroscopy*.
PB9 - **Y.P. Ortiz** : *Spontaneous Symmetry Breaking by Double Lithium Adsorption in Polyacenes and Carbon Sheets*.
PB10 - **L. Ortolani** , V. Morandi, F. Houdellier, E. Snoeck, and M. Monthioux - *Interferometric TEM Investigation of Graphene Membranes*.
PB11 - **F.M.D. Pellegrino**, G.G.N. Angilella and R. Pucci : *Strain Effect on the Electronic and Plasmonic Spectra of Graphene.*
PB12 - **E. Perfetto** : *Time-Dependent Ballistic Transport in Metallic Graphene Nanoribbons*.
PB13 - **F. Perrozzi**, M. Nardone, E. Treossi, V. Palermo, P. De Marco, F. Bisti, S. Prezioso, S. Santucci, and L. Ottaviano : *Systematic Comparative Study of Thermally Reduced Graphene Oxide*.
PB14 - I.V. Lebedeva, A.A. Knizhnik, A.M. Popov, O.V. Ershova, and Yu. E. Lozovik : Study of Interaction between Graphene Layers: Fast Diffusion of Graphene Flake and Commensurate-Incommensurate Phase Transition.
PB15 - **R. Rasuli**, A. Irajizad : *A Novel Method to Measure the Mechanical Properties of Graphene*.
PB16 - S. Bhandary, M.I. Katsnelson, O. Eriksson, and **B. Sanyal** : *Functionalization of Bulk Graphene and Nanoribbons.*
PB17 - **S. Ciuchi,** S. Fratini and D. Mayou : *Transient Localization in Crystalline Organic Semiconductors.*
PB18 - **G. Murguía**, and A. Raya : *Ritus Method and SUSY-QM: Theoretical Frameworks to Study the Electromagnetic Interactions in Graphene*.

POSTER SESSION N.2
(Tuesday May 17th)

Session C. Structuring and tailoring of electronic and transport properties

PC1 - Artur Böttcher, Daniel Löffler, **Noelia Bajales**, Sharali Malik, Patrice Brenner, Dagmar Gerthsen, Manfred M. Kappes : *Structured HOPG Surfaces as a Source of Tailored Nanographene Sheets*.

PC2 - **Konstantin Emtsev**, Alexey Zakharov, Camilla Coletti, Stiven Forti and Ulrich Starke : *Microscopic Study of Quasi-Free Standing Epitaxial Graphene and Graphene P-N Junctions Formed on SiC by Atomic Intercalation of Germanium.*

PC3 - P. Chandrachud, B.S. Pujari, **S. Haldar**, B. Sanyal and D.G. Kanhere : *A Systematic Study of Electronic Structure from Graphene to Graphane.*

PC4 - **W. Kempinski**, D. Markowski, M. Kempinski, M. Sliwinska-Bartkowiak : *Activated Carbon Fiber as a Graphene Based Quantum Dots System.*

PC5 - **A. Perucchi**, L. Baldassarre, C. Marini, P. Postorino, F. Bernardini, S. Massidda and S. Lupi : *Pressure-dependent Electrodynamics in Graphite*.

PC6 - **G. Van Lier**, S. Latil, B. Hajgató, C.P. Ewels, P. Geerlings : *Theoretical Analysis of Graphene Fluorination.*

Session D. Electronic and opto-electronic nanostructured devices: design and applications

PD1 - **E. Ahmadi**, A. Asgari : *Theoretical Calculation of Third Order Susceptibility of Armchair Graphene Nanoribbon at Near Infrared Range*.

PD2 - D. Bonanni, L. Giancaterini, **C. Cantalini**, E. Treossi, V. Palermo, F. Perrozzi, S. Santucci, and L. Ottaviano : *Electrical Response of Thermally Reduced rGO Gas Sensors Exposed to Air/NO2 Mixtures with Different Concentrations and Different Working Temperatures*.

PD3 - **J.M. Caridad** and V. Krstic : *Transport in Graphene with Superlattices*.

PD4 - **A. Esfandiar**, A. Iraji Zad, and O. Akhavan : *Pd Doped Graphene-WO3 Films Prepared by Sol Gel Method for Hydrogen Sensing.*

PD5 - **A. Liscio**, E. Treossi, J.M. Mativetsky, G.P. Veronese, R. Rizzoli, P. Samorì and V. Palermo : *Field-Effect Transistors based on Reduced Graphene Oxide*.

PD6 - O. Pulci, P. Gori, M. Marsili, **V. Garbuio**, R. Del Sole, and F. Bechstedt : *Strong Excitons in Hydrogenated Two-Dimensional Group-IV Crystals: Graphane, Polysilyne and Polygermyne.*

POSTER SESSION N.2
(Tuesday May 17th)

Session E. Mechanical, chemical and biological sensing: devices and applications

PE1 - **L. De Marzi**, F. Perrozzi, L. Ottaviano, A. Monaco, V.Palermo, E. Treossi, S. Santucci and A. Poma - *In Vitro Biocompatibility Evaluation of Graphene Oxide on A549 Cell Line and its Possible Use as a "In Situ" Drug Delivery System.*

PE2 - **L.G. Rizzi**, F. Traversi, F.J. Guzman-Vazquez, V. Russo, C.S. Casari, C. Gómez-Navarro, and R. Sordan - *Elastic Properties of Graphene Suspended on a Polymer Substrate*.

PE3 - S. Xuefeng, D. Lyashenko, **M. H. Oksanen**, M. A. Sillanpaa and P. J. Hakonen - *Graphene Mechanical Resonators for Circuit QED.*

PE4 - **N. Pugno**, J. Vanzo, M. Buehler - Self-strengthening of graphene anchorages

Session F. Energy storage and harvesting: devices and applications

PF1 - **C. Chen**, Q. Zhang, M. Yang, Q. Kong, Y. Yang, Q. Yang, M. Wang, and D. Sheng Su - *Chemical Derived Graphene Assemblies and Hybrids for Advanced Energy Storage.*

PF2 - H. Gharibi, **M. Faraji** - *Graphene Supported Pt Nanoparticles as an Electrocatalyst for Oxygen Reduction Reaction for PEM Fuel Cells*.

Session G. Processes

PG1 - **I.V. Antonova**, I.A. Kotin, R.A. Soots, V.A. Volodin, and V.Ya. Prinz - *Tunable Properties of a Graphene - N-Methylpyrrolidone Monolayer Hybrid Structures.*

PG2 - A. Barbon and **M. Brustolon** - *Electron Paramagnetic Resonance Study on Ball-Milled Nanographites.*

PG3 - **S. Mohamadi**, N. Sharifi-Sanjani - *Preparation and Investigation the Crystalline Structure of PVDF in PVDF/PMMA/Graphene Nanocomposites.*

PG4 - **C. Vallès**, J. D. Núñez, A. M. Benito, and W. K. Maser - *Preparation of Flexible Conductive Reduced Graphene Oxide Papers.*

PG5 - **Q. Zhang**, C. Chen, Y. Yang, Q. Yang, M. Wang, and D. Sheng Su - *Multi-Functional Free-Standing Graphene Oxide Paper Through Self-Assembly at the Liquid/Air Interface*.

POSTER SESSION N.2
(Tuesday May 17th)

Session H. Mechanical, chemical and biological sensing: devices and applications

PH1 - **E. Treossi**, A. Liscio, M. Melucci, G. Giambastiani, P. Klar, C. Casiraghi, L. Ortolani, V. Morandi, P. Samorì, and V. Palermo - *Graphene Oxide-Quaterthiophene Composites Obtained by Microwave-Assisted Synthesis*.

PH2 - **F. Ait medjane**, R. Wendelbo, N. H. Andersen, A. Karlsson, S. Karazhanov and A. Thogersen - *Fabrication of Transparent and Conductive Chemically Converted Graphene Films by Dip-coating Technique*.

PH3 - **S. Prezioso**, F. Perrozzi, M. Donarelli, F. Bisti, S. Santucci, M. Nardone, E. Treossi, V. Palermo, and L. Ottaviano - *EUV-Assisted Spatially Resolved Graphene Oxide Reduction*.

http://graphita.bo.imm.cnr.it
graphita@aquila.infn.it