

Poster programme

Session 5: Poster session 1 Monday, 05 September 2016 17:30-19:00	
[P5.01]	Carbon nanotube growth on titanium silicide with Ni-based catalyst S. Li*, C. Zhou, S. Raju, M. Chan, <i>The Hong Kong University of Science and Technology, Hong Kong</i>
[P5.02]	Thermal decomposition products of various carbon sources in chemical vapor deposition synthesis of carbon nanotube S. Inoue*, Y. Yamamoto, Y. Matsumura, <i>Hiroshima University, Japan</i>
[P5.03]	Catalytic CVD synthesis of multi-walled carbon nanotubes using a new Fe-Co catalyst A.A. Silva*, V.J. Trava-Airoldi, E.J. Corat, <i>National Institute of Space Research, Brazil</i>
[P5.04]	Raman active modes of single-wall boron nitride nanotubes inside carbon nanotubes A.H. Rahmani*, M. Boutahir, B. Fakrach, H. Chadli, A. Rahmani, <i>Université Moulay Ismail, Morocco</i>
[P5.05]	Influence of mono and bi-vacancies defects on vibrational properties of single wall carbon nanotube S.A. Ait_Abelkader, M. Boutahir*, B. Fekrach, H. Chadli, M. Bentaleb, A. Rahmani, <i>Moulay Ismail University, Morocco</i>
[P5.06]	Wet-spun carbon nanotube composite fibers with tuned physicochemical properties R. Garriga* ¹ , R. Marcilla ² , E. Azaceta ³ , A. Seral-Ascaso ⁴ , E. García-Bordejé ⁴ , M. Laguna ⁵ , V.L. Cebolla ⁴ , A.B. Dalton ^{6,7} , I. Jurewicz ⁶ , E. Muñoz ⁴ , ¹ Universidad de Zaragoza, Spain, ² Institute IMDEA Energy, Spain, ³ IK4-CIDETEC, Spain, ⁴ Instituto de Carboquímica ICB-CSIC, Spain, ⁵ Universidad de Zaragoza-CSIC, Spain, ⁶ University of Surrey, UK, ⁷ University of Sussex, UK
[P5.07]	Probing the structural integrity of double walled carbon nanotubes shock compressed to 0.5 Mbars X. Devaux* ^{1,2} , P. Botella ³ , V. Garashchenko ³ , M. Mases ³ , M. Dossot ^{1,2} , S. Ananev ⁴ , A.V. Soldatov ^{3,5} , ¹ Université de Lorraine, France, ² CNRS, France, ³ Lulea University of Technology, Sweden, ⁴ Russian Academy of Science, Russia, ⁵ Harvard University, USA
[P5.08]	Chirality assignment to carbon nanotubes by high resolution scanning transmission electron microscopy X. Devaux ¹ , ¹ Université de Lorraine, France, ² CNRS, France
[P5.09]	Reinforcement of epoxy resin composites with fluorinated carbon nanotubes A.P. Kharitonov* ^{1,2} , G.V. Simbirtseva ¹ , L.N. Kharitonova ¹ , A.G. Tkachev ² , A.N. Blohin ² , T.P. Dyachkova ² , D.E. Kobzev ² , A.A. Maksimkin ^{2,3} , D.I. Chusov ^{2,3} , A.S. Mostovoy ^{2,4} , ¹ Russian Academy of Sciences, Russia, ² Tambov State Technical University, Russia, ³ MISIS, Russia, ⁴ State Technical University of Saratov, Russia
[P5.10]	Thin-film nanocomposites of BDD/CNT deposited on carbon fiber A.A. Silva*, R.A. Pinheiro, V.J. Trava-Airoldi, E.J. Corat, <i>National Institute of Space Research, Brazil</i>
[P5.11]	Raman spectra of boron doped single-walled carbon nanotube A. Elbiyaali*, F. Allali, M. Bentaleb, H. Chadli, A. Rahmani, <i>Meknes, Morocco</i>
[P5.12]	Vibrational properties of nitrogen doped carbon nanotubes F. Allali*, A. Elbiyaali, A. Rahmani, <i>Meknes, Morocco</i>
[P5.13]	Vibrational properties of carbon nanotubes with penta-vacancies points defects S.A. Ait-Abdelkader*, M. Boutahir, B. Fekrach, H. Chadli, M. Bentaleb, A. Rahmani, <i>Moulay Ismail University, Morocco</i>
[P5.14]	Raman spectra of C60 confined inside a single-walled boron nitride nanotube B. Fakrach*, A.H. Rahmani, M. Boutahir, S. Ait Abdelkader, H. Chadli, A. Rahmani, <i>LEM2A FSM-UMI, Morocco</i>
[P5.15]	Comparative analysis of methods for evaluating wear rate of nanocrystalline diamond films A. Bogatov ¹ , M. Yashin ¹ , P. Menezes ² , V. Podgursky* ¹ , ¹ Tallinn University of Technology, Estonia, ² University of Nevada (Reno), USA
[P5.16]	From micro- to nanocrystalline diamond films: Changes in microstructure, composition and surface morphology as function of methane concentration in HF-CVD synthesis J.G. Buijnsters* ¹ , C. Pardanaud ² , L. Vázquez ³ , J.L. Endrino ⁴ , L. Lajaunie ⁵ , R. Arenal ^{5,6} , ¹ Delft University of Technology, The Netherlands, ² Université d'Aix-Marseille, France, ³ ICMM-CSIC Madrid, Spain, ⁴ Cranfield University, UK, ⁵ Instituto de Nanociencia de Aragón, Spain, ⁶ ARAID Foundation, Spain
[P5.17]	The phase transition during post annealing II S.T.N. Nakagawa, <i>Okayama University of Science, Japan</i>
[P5.18]	Determination of type of stacking faults of in (111) HPHT diamond single crystal with extremely low defect density by synchrotron X-ray topography observation S. Masuya* ¹ , T. Moribayashi ¹ , K. Hanada ¹ , H. Sumiya ² , M. Kasu ¹ , ¹ Saga University, Japan, ² Sumitomo Electric Industries, Ltd., Japan
[P5.19]	Two-dimensional characterization of laser-induced graphitic strips on a CVD diamond surface

	M. De Feudis ^{*1,2} , A.P. Caricato ^{1,2} , G. Chiodini ² , M. Martino ^{1,2} , E. Broitman ⁴ , P. M. Ossi ⁵ , A. Taurino ⁶ , ¹ University of Salento, Italy, ² INFN, Italy, ³ CNR- Nanotec, Italy, ⁴ IFM, Linköping University, Sweden, ⁵ NEMAS, Polytechnic of Milan, Italy, ⁶ CNR-IMM, Institute for Microelectronics and Miscrosystem, Italy
[P5.20]	Boron-doped nano-polycrystalline diamond K. Ikeda*, K. Harano, K. Arimoto, H. Sumiya, <i>Sumitomo Electric Industries, Ltd., Japan</i>
[P5.21]	Precise measurement of diamond lattice constant S. Shikata ^{*1} , K. Yamaguchi ¹ , E. Kamei ¹ , Y. Tsuchida ¹ , T. Tanno ² , J. Kushibiki ³ , ¹ Kwansei Gakuin University, Japan, ² RIEC, Tohoku University, Japan, ³ Tohoku University, Japan
[P5.22]	Electrical and mechanical properties of large-area and ultra-thin boron-doped nanocrystalline diamond membranes P. Pobedinskas ^{*1,2} , M. Mohr ³ , S. Drijkoningen ^{1,2} , A. Behroudj ³ , H.J. Fecht ³ , K. Haenen ^{1,2} , ¹ Hasselt University, Belgium, ² IMEC vzw, IMOMECE, Belgium, ³ Ulm University, Germany
[P5.23]	Innovative polishing technologies for GaN on diamond substrates A. Arjunan, E. Singh, R. Singh*, <i>Sinmat Inc, USA</i>
[P5.24]	Sub-surface damage free polishing of single crystal diamond A. Arjunan, E. Singh, R. Singh*, <i>Sinmat Inc, USA</i>
[P5.25]	Interfacial studies on wafer bonded Si on diamond substrates J. Kim ¹ , A. Arjunan ¹ , P. Jawali ¹ , R. Singh ^{*1} , ¹ Sinmat Inc, USA, ² University of Florida, USA
[P5.26]	High-rate polishing of polycrystalline diamond films by ultrasonic machining V.G. Ralchenko ^{*1,2} , E.E. Ashkinazi ^{2,3} , E.V. Zavedeev ^{2,3} , A.A. Khomich ² , A.P. Bolshakov ^{2,3} , S.G. Ryzhkov ² , D.N. Sovyk ^{2,3} , V.A. Shershulin ^{2,3} , V.Y. Yurov ^{2,3} , V.V. Rudnev ⁴ , ¹ Harbin Institute of Technology, China, ² Russian Academy of Sciences, Russia, ³ National Research Nuclear University "MEPhI", Russia, ⁴ National Research University of Electronic Technology, Russia
[P5.27]	High efficient planarization process of single crystal diamond substrate by plasma fusion chemical mechanical polishing T. Doi*, K. Oyama, H. Aida, Y. Sano, S. Kurokawa, H. Nishizawa, <i>Kyushu University, Japan</i>
[P5.28]	Poly- and nanocrystalline diamond coatings on hard alloy tools: Group deposition by a microwave plasma CVD and cutting performance E.E. Ashkinazi ^{1,2} , D.N. Sovyk ^{*1,2} , V.S. Sedov ¹ , A.A. Khomich ¹ , A.V. Khomich ¹ , V.G. Ralchenko ^{3,1} , P.A. Tsygankov ^{4,1} , D.V. Vinogradov ^{4,1} , ¹ Russian Academy of Sciences, Russia, ² National Research Nuclear University «MEPhI», Russia, ³ Harbin Institute of Technology, China, ⁴ Moscow State Technical University «MSTU Bauman», Russia
[P5.29]	Effect of microdiamond addition to onion-like carbon on formation of nanopolycrystalline diamond Q. Zou, M.Z. Wang, J.Q. Zhang, J.M. Li, L. Wang, Y.C. Zhao, H. Yu*, <i>Yanshan University, China</i>
[P5.30]	TiO₂/BDD/carbon fiber ternary composite as a novel electrode material with controlled photoactivity L.A. Pereira, A.B. Couto, N.G. Ferreira*, <i>Instituto Nacional de Pesquisas Espaciais, Brazil</i>
[P5.31]	Growth of thick CVD diamond films on high-quality type IIa HPHT diamond substrates from New Diamond Technology A. Tallaire ¹ , J. Achard ^{*1} , V. Mille ¹ , O. Brinza ¹ , Y. Loguinov ² , A. Katrusha ² , A. Koliadin ¹ , N. Khikhashvili ¹ , ¹ LSPM-CNRS, France, ² New Diamond Technology, Russia
[P5.32]	The effect of nucleation enhancement steps on ultrasonic seeding densities with nanodiamond powders B. Wehring ^{*1} , M.F. Becker ¹ , R. Rechenberg ¹ , M. Muehle ^{1,2} , T. Schuelke ^{1,2} , ¹ Fraunhofer USA Center for Coatings and Diamond Technologies, USA, ² Michigan State University, USA
[P5.33]	Parametric study of growth kinetics of homoepitaxial single crystal diamond in a microwave plasma CVD process using an in situ interferometric thickness control E.V. Bushuev ¹ , V.Y. Yurov ^{*1,2} , A.P. Bolshakov ^{1,2} , V.G. Ralchenko ^{3,1} , A.A. Khomich ^{1,2} , E.V. Zavedeev ^{1,2} , I.A. Antonova ^{1,2} , E.E. Ashkinazi ^{1,2} , ¹ A.M. Prokhorov General Physics Institute of Russian Academy of Sciences, Moscow, Russia, ² National Research Nuclear University MEPhI, Russia, ³ Harbin Institute of Technology, China
[P5.34]	The influence of different growth variables on the crystal shapes of MPACVD grown single crystal diamond substrates A. Charris*, S. Nad, J. Asmussen, <i>Michigan State University, USA</i>
[P5.35]	Diamond-EuF₃ nanocomposites with bright orange photoluminescence V.S. Sedov ^{*1,2} , S.V. Kuznetsov ¹ , V.G. Ralchenko ^{3,1} , M.N. Mayakova ¹ , S.S. Savin ⁴ , K.P. Zhuravlev ¹ , A.K. Martyanov ¹ , P.P. Fedorov ¹ , V.I. Konov ^{1,2} , ¹ Russian Academy of Sciences, Russia, ² National Research Nuclear University MEPhI, Russia, ³ Harbin Institute of Technology, China, ⁴ Moscow Technological University, Russia
[P5.36]	Influence of CVD diamond growth conditions on nitrogen incorporation M.A. Lobaev, A.M. Gorbachev*, S.A. Bogdanov, A.L. Vikharev, D.B. Radishev, V.A. Isaev, V.V. Chernov, M.N. Drozdov, <i>Russian Academy of Sciences, Russia</i>

[P5.37]	The orientation preference of the NV and SiV centres in diamond: A first principles study L. Zhang, <i>Nankai University, China</i>
[P5.38]	Investigation of boron incorporation efficiency in delta doped diamond layers M.A. Lobaev*, A.M. Gorbachev, A.L. Vikharev, V.A. Isaev, V.V. Chernov, D.B. Radishev, S.A. Bogdanov, M.N. Drozdov, J.E. Butler, <i>Russian Academy of Sciences, Russia</i>
[P5.39]	Synthesis and characterisation of nanocrystalline, microcrystalline and functionally graded diamond coatings on reaction bonded SiC G. Selva Prabhakaran*, S.S. Bhattacharya, M.S. Ramachandra Rao, <i>Indian Institute of Technology Madras, India</i>
[P5.40]	Combination of surface pre-treatments of diamond HPHT (100) substrates for growth of p- epitaxial layer C.B. Barbay*, C.M. Mer, N.T. Tranchant, P.B. Bergonzo, S.S. Saada, J.A. Arnault, <i>CEA LIST, France</i>
[P5.41]	Gas jet deposition of diamond structures by thermal activation on extended surface A.K. Rebrov, <i>Russian Academy of Sciences, Russia</i>
[P5.42]	Additive manufacture of diamond/diamond composites using a custom laser chemical vapor deposition system C.M. Weiss, <i>Army Research Laboratory, USA</i>
[P5.43]	Formation of nano-carbon by in-liquid plasma method for fuel cell catalyst Y. Show, A. Alsaeedi*, <i>Tokai University, Japan</i>
[P5.44]	Nitrogen doped mesoporous carbon aerogels and implications for electrocatalytic oxygen reduction reactions B. Nagy* ¹ , S. Villar-Rodil ² , J. M. D. Tascón ² , I. Bakos ³ , K. László ¹ , ¹ Budapest University of Technology and Economics, Hungary, ² Instituto Nacional del Carbón, INCAR-CSIC, Spain, ³ Research Centre for Natural Sciences, Hungary
[P5.45]	X-ray photoemission spectroscopy of free carbon dots I. Papagiannouli* ¹ , V. Blanchet ¹ , E. Mevel ¹ , J. Gaudin ¹ , A. Levy ² , M. Patanen ³ , D. Bassani ⁴ , ¹ CELIA, Université de Bordeaux, France, ² Sorbonne Université, France, ³ University of Oulu, Finland, ⁴ CNRS UMR 5255, France
[P5.46]	One-step fabrication of high quantum yield sulfur- and nitrogen-doped carbon dots for sensitive and selective detection of Cr (VI) Y.Q. Cai*, S.H. Wang, H.Y. Niu, <i>Chinese Academy of Sciences, China</i>
[P5.47]	Carbon dots as a new matrix for detection of small molecule pollutants by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry H.Y. Niu*, S.J. He, Y.Q. Cai, <i>Chinese Academy of Sciences, China</i>
[P5.48]	One-step fabrication of fluorescent carbon dots from natural organic matter and their application in Fe³⁺ detection Y.L. Shi*, Y.Q. Cai, <i>Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, China</i>
[P5.49]	Why there are produced so few of pristine IPR higher fullerenes: molecular structure aspect V. Kovalenko*, A. Khamatgalimov, <i>A.E. Arbusov Institute of Organic and Physical Chemistry, Russia</i>
[P5.50]	Synthesis of diamond nanoparticles by arc discharge plasma L. Zhou, Y. Zhao, H. Huang, H.T. Yu, X.L. Dong*, X. Quan, <i>Dalian University of Technology, China</i>
[P5.51]	Tritium labeled nanodiamonds: Preparation and application in studying its behavior in liquid-liquid and biological systems I.Y. Myasnikov*, M.G. Chernysheva, O.A. Soboleva, N.A. Kulikova, G.A. Badun, <i>Lomonosov MSU, Russia</i>
[P5.52]	An approach to standardization of detonation nanodiamond properties used as carrier in drug delivery R.Y. Yakovlev* ^{1,2} , N.N. Dogadkin ³ , A.A. Eliseev ² , V.P. Kolotov ³ , G.V. Lisichkin ² , N.B. Leonidov ¹ , ¹ Pavlov Ryazan State Medical University, Russia, ² Lomonosov Moscow State University, Russia, ³ Russian Academy of Sciences, Russia
[P5.53]	Self-assembled nanocomposite polymer-nanodiamond coatings for field-emission vacuum cathodes P.V. Lebedev-Stepanov* ^{1,2} , A.T. Dideykin ³ , S.N. Chvalun ⁴ , A.V. Vasiliev ⁴ , T.E. Grigoriev ⁴ , A.N. Korovin ⁴ , S.I. Belousov ⁴ , S.P. Molchanov ¹ , G.A. Yurasik ¹ , A.Y. Vul ³ , ¹ Photochemistry Center RAS, Russia, ² Research Nuclear University MEPhI, Russia, ³ Ioffe Physical Technical Institute, Russia, ⁴ NRC Kurchatov Institute, Russia
[P5.54]	Magnetic resonance tracking of nitrogen centre P1 in single diamond crystals produced from nanodiamond by HPHT synthesis V.Y. Osipov ¹ , S.V. Kidalov ¹ , F.M. Shakhov ¹ , N.N. Efimov ² , V.N. Minin ² , A.Y. Vul* ¹ , ¹ Ioffe Physical-Technical Institute, Russia, ² Kurnakov Institute of General and Inorganic Chemistry, Russia
[P5.55]	Study of photoexcited carrier dynamics in nitrogen-vacancy centres in nanodiamonds T. Chlouba* ¹ , F. Trojánek ¹ , S. Stehlík ² , P. Malý ¹ , ¹ Charles University in Prague, Czech Republic, ² Czech Academy of Sciences, Czech Republic
[P5.56]	The chrome electroplating in the presence of modified detonation nanodiamonds G. Burkat ^{1,2} , V.Y. Dolmatov* ² , E. Gmyzin ¹ , V. Myllymäki ³ , A. Vehanen ³ , ¹ St. Petersburg State Institute of

	<i>Technology (Technical University), Russia, ²FSUE SCTB "Technolog", Russia, ³Carbodeon Ltd. Oy, Finland</i>
[P5.57]	Paramagnetism of nanodiamond powder doped with impurity atoms of boron and phosphorus during the shock-wave synthesis V.Y. Dolmatov* ¹ , B. Nguyen ² , N. Lapchuk ² , V. Myllymäki ³ , A. Vehanen ³ , ¹ FSUE SCTB "Technolog", Russia, ² Belarusian State University, Belarus, ³ Carbodeon Ltd. Oy, Finland
[P5.58]	Application of nanodiamonds for "in-situ" synthesis of TiC reinforcing nanoparticles inside aluminium matrix during mechanical alloying V. Popov, <i>National University of Science and Technology MISiS, Russia</i>
[P5.59]	Thermal stability of metal matrix composites with nanodiamond reinforcements V. Popov, <i>National University of Science and Technology MISiS, Russia</i>
[P5.60]	Development of non-agglomerated state of nanodiamond reinforcing particles inside metal matrix composites V. Popov, <i>National University of Science and Technology MISiS, Russia</i>
[P5.61]	On the mechanism of formation of detonation nanodiamond (DND) V.Y. Dolmatov* ¹ , V. Myllymäki ² , A. Vehanen ² , ¹ FSUE "SCTB Technolog, Russia, ² Carbodeon Ltd. Oy, Finland
[P5.62]	Some features of transformation of the agglomerated nanodiamond powders into carbon onions V.A. Popov, <i>National University of Science and Technology MISiS, Russia</i>
[P5.63]	Fabrication of silver coating film on diamond powder T. Iyama*, R. Oshima, K. Iizuka, <i>Nippon Institute of Technology, Japan</i>
[P5.64]	Electronic transport properties of diamondoids and related ferrocene molecules Y. Matsuura, <i>Nara National College of Technology, Japan</i>
[P5.65]	Influence of graphene sheet on microstructure and properties of Ni-based alloy coatings prepared by laser cladding C.S. Wang, <i>Dalian University of Technology, China</i>
[P5.66]	Fabrication of pre-patterned graphene-carbon nanotube hybrid structure for lower contact resistance Y. Zhu*, Y.Y. Chen, C. Xin, L.H. Jiang, D.Z. Wang, W.L. Zhou, <i>Huazhong University of Science and Technology, China</i>
[P5.67]	Optimization of interface for NO₂ not-heated sensing device based on RGO on chemically modified electrodes E. Massera ¹ , L. Sansone* ² , B. Alfano ¹ , T. Polichetti ¹ , M.L. Miglietta ¹ , A. Borriello ² , C. Taddei ² , M. Giordano ² , G. Di Francia ¹ , ¹ ENEA, Italy, ² National Council of Research, Italy
[P5.68]	Adsorption of a methane molecule on a graphene surface decorated with MC₃₀, with M = titanium or lithium M. Canales, A. Zarate, L.F. Magana*, <i>Universidad Nacional Autónoma de México, Mexico</i>
[P5.69]	Mechanical flexibility and electrical conductivity of transparent CVD graphene on plastic substrates M. Ishihara* ^{1,2} , K. Kawata ² , Y. Okigawa ^{1,2} , T. Yamada ^{1,2} , M. Hasegawa ^{1,2} , ¹ National Institute of Advanced Science and Technology, Japan, ² Technology Research Association for Single Wall Carbon Nanotubes, Japan
[P5.70]	Local fluctuation of transformation to amorphous diamond from irradiated graphite and C₆₀ fullerenes under shock-compression K. Niwase* ¹ , K.G. Nakamura ² , T. Atou ² , T. Iwata ³ , ¹ Hyogo University of Teacher Education, Japan, ² Tokyo Institute of Technology, Japan, ³ Japan Atomic Energy Research Institute, Japan
[P5.71]	Direct exfoliation of layered hexagonal boron nitride Y. Zhao ¹ , B. Xu ² , W. Gao ¹ , H. Yin* ¹ , ¹ Jilin University, China, ² Yanbian University, China
[P5.72]	Comparative ab initio studies on morphology and stability of the C/BN and SiC/GaN heterostructure interfaces M. Sznajder* ¹ , N. Hrushka ¹ , J.A. Majewski ² , ¹ University of Rzeszow, Poland, ² University of Warsaw, Poland
[P5.73]	Confinement of electrons due to sp²-sp³ hybridization change in double layer graphene - DFT study A. Olejniczak* ¹ , B. Cichy ² , L. Radosinski ¹ , W. Strek ² , ¹ Wroclaw University of Technology, Poland, ² Institute of Low Temperatures and Structural Research, Poland
[P5.74]	Optical properties of ABA-stacked trilayer graphene under magnetic and electric fields T.N. Do* ¹ , Y.H. Chiu ² , M.F. Lin ¹ , ¹ National Cheng Kung University, Taiwan, ² National Pingtung University, Taiwan
[P5.75]	Absorption and desorption characteristics of water and hydrogen in multilayer graphene films prepared by mist-chemical vapor deposition B. Tsuchiya* ¹ , N. Matsunami ¹ , S. Bandow ¹ , S. Nagata ² , ¹ Meijo University, Japan, ² Tohoku University, Japan
[P13.23]	On quasi-mobility and mobility of definite energy charge carriers in diamond Y.M. Belousov, V.N. Gorelkin, I.V. Chernousov*, <i>Moscow Institute of Physics and Technology, Russia</i>

Wednesday, 07 September 2016 16:00-17:30	
[P13.01]	Tracking a single molecule grafted on a carbon nanotube X. Devaux ^{*1,2} , N. Allali ^{1,2} , V. Mamane ^{3,2} , M. Dossot ^{1,2} , ¹ Université de Lorraine, France, ² CNRS, France, ³ Université de Strasbourg, France
[P13.02]	Carbon nanotube-based volatile organic compound sensor on cellulose paper C. Rattanabut ^{*1} , W. Muangrat ¹ , P. Artsamai ¹ , V. Yordsri ² , W. Bunjongpru ³ , S. Porntheeraphat ⁴ , W. Wongwiriyan ^{1,5} , ¹ King Mongkut's Institute of Technology Ladkrabang, Thailand, ² National Metal and Materials Technology Center, Thailand, ³ Thai Microelectronics Center, Thailand, ⁴ National Electronics and Computer Technology Center, Thailand, ⁵ Nanotec-KMITL Center of Excellence in Nanoelectronic Devices, Thailand, ⁶ Thailand Center of Excellence in Physics, Thailand
[P13.03]	Dispersion of carbon nanotubes in water by using in-liquid plasma method A. Syuhaidah [*] , Y. Show, Tokai University, Japan
[P13.04]	The effect of high-temperature vacuum annealing on field emission properties of carbon nanotube paste-emitters J-W. Kim ^{*1} , M-S. Shin ^{1,2} , J-W. Jeong ¹ , S. Park ¹ , E. Go ^{1,2} , H. Jeon ^{1,2} , J-T. Kang ¹ , Y. Choi ¹ , Y-H. Song ^{1,2} , ¹ Electronics and Telecommunications Research Institute, Republic of Korea, ² University of Science & Technology, Republic of Korea
[P13.05]	Synthesis of highly-crystallized single-walled carbon nanotubes dispersed solution for 2-dim field emission cathode S. Kumon ^{*1} , D. Abe ¹ , N. Shimoi ² , ¹ DOWA Holdings Co., Ltd., Japan, ² Tohoku University, Japan
[P13.06]	Reduction in electrical percolation threshold of CNT polymer composite film by using CNT dispersion Y. Show, A. Almowarai [*] , Tokai, Japan
[P13.07]	Adsorption effect of water vapor on the electrical properties of multi-walled carbon nanotube film T. Kokabu [*] , S. Inoue, Y. Matsumura, Hiroshima University, Japan
[P13.08]	Field emission studies of indium nanoparticle decorated multi-walled carbon nanotubes M. Sreekanth [*] , S. Ghosh, P. Srivastava, Indian Institute of Technology Delhi, India
[P13.09]	CVD boron-doped diamond vs. carbon fiber electrodes for real-time in vivo detection of neurotransmitters in the brain J. Tomshine ^{*1} , K. Lee ¹ , F. Manciu ² , S. Hara ¹ , M. Marsh ¹ , M. Settell ¹ , K. Bennet ¹ , ¹ Mayo Clinic, USA, ² University of Texas at El Paso, USA
[P13.10]	Diamond electrodes for petroleum exploration G. Berthet ¹ , E. Scorsone ¹ , K. Danaie ² , M. Pomorski ^{*1} , P. Bergonzo ¹ , ¹ CEA LIST, France, ² Schlumberger, France
[P13.11]	Patterning of the surface termination of ultrananocrystalline diamond films for guided neuronal growth A. Voss ¹ , Y. Zhang ¹ , H. Wei ² , M. Giese ² , W. Kulisch ¹ , M. Stengl ² , J.P. Reithmaier ¹ , M.D. Apostolova ³ , C. Popov ^{*1} , ¹ University of Kassel, INA, Germany, ² Bulgarian Academy of Sciences, BAS, Bulgaria
[P13.12]	Interfacial stress evolution simulation on the graphite substrate/interlayer/diamond film during the cooling process J.C. Guo [*] , J.L. Liu, C.Y. Hua, X.B. Yan, J.J. Wei, L.X. Chen, L.F. Hei, C.M. Li, University of Science and Technology Beijing, China
[P13.13]	Modeling of fluorine interaction with the defects on a diamond surface N. Lvova ^{*1} , A. Ryazanova ² , O. Ananina ³ , ¹ Technological Institute for Superhard and Novel Carbon Materials, Russia, ² State University, Russia, ³ Zaporizhzhya National University, Ukraine
[P13.14]	The characteristics analysis of the diamond crystals synthesized by different dynamic loading methods Y. Tong, S.S. Shang [*] , Y.W. Wang, F.L. Huang, Beijing Institute of Technology, China
[P13.15]	Ultrafast laser-triggered electron emission from diamond coated metal tips A.T. Tafel [*] , J.R. Ristein, P.H. Hommelhoff, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany
[P13.16]	Novel performances of a diamond nano-device with vacuum tunnelling conduction A. Topor ¹ , C. Ravariu ^{*1} , F. Babarada ¹ , D. Manuc ² , B. Patrichi ² , ¹ Polytechnic University of Bucharest, Romania, ² Carol Davila University of Medicine and Pharmacy, Romania
[P13.17]	Thin film ferroelectric structures on diamond for high power microwave applications A. Tumarkin [*] , S. Razumov, A. Gagarin, A. Altynnikov, A. Mikhailov, R. Platonov, I. Kotelnikov, A. Kozyrev, J.E. Butler, Saint Petersburg Electrotechnical University "LETI", Russia
[P13.18]	Advances on TCAD modelling of synthetic diamond for electron devices A. Morozzi ^{*1,2} , D. Passeri ^{1,2} , K. Kanxheri ² , L. Servoli ² , S. Lagomarsino ^{3,4} , S. Sciortino ^{3,4} , ¹ University of Perugia, Italy, ² INFN Perugia, Italy, ³ INFN Firenze, Italy, ⁴ University of Firenze, Italy
[P13.19]	Fabrication of diamond field-effect transistors with double NO₂ hole doping and low-temperature Al₂O₃ gate insulator layer M. Kasu [*] , K. Hanada, Y. Koga, T. Oshima, T. Oishi, Saga University, Japan

[P13.20]	Ultra-thin diamond vertical Schottky diode by ion-beam-assisted lift-off S.A. Tarelkin ^{*1,2} , V.S. Bormashov ^{1,2} , M.S. Kuznetsov ¹ , D.V. Teteruk ¹ , N.V. Kornilov ¹ , A.V. Golovanov ¹ , A.P. Volkov ¹ , D.D. Prikhodko ¹ , S.G. Buga ¹ , ¹ <i>Technological Institute for Superhard and Novel Carbon Materials, Russia</i> , ² <i>Moscow Institute of Physics and Technology, Russia</i> , ³ <i>National University of Science and Technology MISIS, Russia</i>
[P13.21]	Diamond Schottky-pn diode using lightly nitrogen-doped layer T. Matsumoto ^{*1,2} , T. Mukose ¹ , T. Makino ² , D. Takeuchi ² , S. Yamasaki ² , T. Inokuma ¹ , N. Tokuda ^{1,2} , ¹ <i>Kanazawa University, Japan</i> , ² <i>AIST, Japan</i>
[P13.22]	Effect of Pauli paramagnetism on superconducting boron doped diamond D. Kumar [*] , M.S.R. Rao, <i>IIT Madras, India</i>
[P13.24]	Carrier recombination dynamics in thick (110) phosphorus-doped CVD diamond layers P. Pobedinskas ^{*1,2} , P. Ščajev ³ , A. Lazea-Stoyanova ⁴ , Y. Balasubramaniam ^{1,2} , K. Jarašiūnas ³ , K. Haenen ^{1,2} , ¹ <i>Hasselt University, Belgium</i> , ² <i>IMEC vzw, IMOMECE, Belgium</i> , ³ <i>Vilnius University, Lithuania</i> , ⁴ <i>National Institute for Laser, Plasma and Radiation Physics, Romania</i>
[P13.25]	Transient photocapacitance study of deep-level defects in boron-doped diamond films O. Maida [*] , T. Hori, T. Kodama, T. Ito, <i>Osaka University, Japan</i>
[P13.26]	Semi-conductive characteristics of nano-polycrystalline diamond synthesized by high pressure and high temperature technique F. Ishikawa [*] , A. Ishikawa, K. Hamada, M. Matsushita, H. Ohfuji, T. Shinmei, T. Irifune, <i>Ehime University, Japan</i>
[P13.27]	Electronic structure and magnetic properties of substitutionally doped diamond: Spin-polarized, hybrid density functional theory analysis K. Czelej [*] , P. Spiewak, K.J. Kurzydowski, <i>Warsaw University of Technology, Poland</i>
[P13.28]	Fabrication and characterization of two-dimensional photonic crystals in nanocrystalline diamond membranes N. Felgen, F. Römer, B. Witzigmann, J.P. Reithmaier, C. Popov [*] , <i>University of Kassel, Germany</i>
[P13.29]	Templated growth of diamond optical resonators via plasma-enhanced chemical vapor deposition X. Zhang [*] , E.L. Hu, <i>Harvard University, USA</i>
[P13.30]	Polarization Raman study of subsurface damaged layer on single crystalline diamond by focused ion beam irradiation M. Yamaguchi ^{*1} , K. Kawasegi ² , K. Kozu ¹ , N. Morita ³ , K. Nishimura ⁴ , ¹ <i>Akita University, Japan</i> , ² <i>Toyama Industrial Technology Center, Japan</i> , ³ <i>Chiba University, Japan</i> , ⁴ <i>Kogakuin University, Japan</i>
[P13.31]	Comparative study of Raman and electric properties of boron-doped diamond V. Mortet ^{*1,2} , Z. Vlckova Zivcova ¹ , O. Frank ¹ , F. Jomard ³ , A. Taylor ^{1,2} , J. Barjon ³ , P. Ashcheulov ¹ , P. Hubik ¹ , M. Davydova ¹ , E. Bedel-Pereira ⁴ , ¹ <i>The Czech Academy of Sciences, v.v.i., Czech Republic</i> , ² <i>Czech Technical University in Prague, Czech Republic</i> , ³ <i>Université Versailles St Quentin, France</i> , ⁴ <i>LAAS CNRS, France</i> , ⁵ <i>Institute for Materials Research, Belgium</i> , ⁶ <i>IMOMECE, IMEC vzw, Belgium</i>
[P13.32]	Effect of impurities on thermal conductivity of polycrystalline diamond grown by microwave plasma-assisted CVD Q.Y. Kong ^{*1} , C.M. Yap ² , S.W. Xiao ² , A. Tarun ² , K. Liang ¹ , B.K. Tay ¹ , D.S. Misra ² , ¹ <i>Nanyang Technological University, Singapore</i> , ² <i>Ila Technologies, Singapore</i>
[P13.33]	Extended defects as a reason of thermal conductivity decreasing in boron-doped single crystal diamonds. D.D. Prikhodko ^{*1,2} , S.A. Tarelkin ^{1,2} , V.S. Bormashov ^{1,2} , A.V. Golovanov ^{1,2} , M.S. Kuznetsov ² , A.P. Volkov ^{1,2} , D.V. Teteruk ² , N.V. Kornilov ² , S.G. Buga ^{1,2} , ¹ <i>Moscow Institute of Physics and Technology (State University), Russia</i> , ² <i>Technological Institute for Superhard and Novel Carbon Materials, Russia</i>
[P13.34]	Emission properties investigation for carbon nano-pin structures formed on surface of the silicon crystal G.Y. Krasnikov ¹ , E.S. Gornev ¹ , S.N. Orlov ^{*1} , V.P. Timoshenkov ² , R.K. Yafarov ³ , A.R. Yafarov ³ , ¹ <i>Molecular Electronics Research Institute JSC, Russia</i> , ² <i>National Research University MIET, Russia</i> , ³ <i>RAS, Russia</i>
[P13.35]	Fabrication and properties of Ti-doped amorphous hydrogenated carbon (a-C:H) coating by filtered cathodic vacuum arc (FCVA) technique J. Luo [*] , P. Pang, B. Liao, X.Y. Wu, X. Zhang, <i>Beijing Normal University, China</i>
[P13.36]	A study on the influence of doped-elements on the corrosion resistance of DLC films N. Moolsradoo ^{*1} , S. Watanabe ² , ¹ <i>King Mongkut's University of Technology Thonburi, Thailand</i> , ² <i>Nippon Institute of Technology, Japan</i>
[P13.37]	Microstructure and tribological properties of magnetron sputtered WS_x film prepared on amorphous carbon substrate Y. Fang-er, L. Ang [*] , S. Jing-feng, Z. Xiao-hua, <i>Zhejiang University of Technology, China</i>
[P13.38]	Effects of a-C matrix on growth and tribological properties of magnetron sputtered WS_x films Z. Xiao-hua, S. Jing-feng [*] , L. Ang, Y. Fang-er, <i>Zhejiang University of Technology, China</i>

[P13.39]	Effect of the CH₄ flow rate on the composition, structure and properties of the Ni/a-C:H nanocomposite films H. Zhou*, Q.Y. Hou, B. Liao, J.J. Yu, X. Zhang, <i>Beijing Normal University, China</i>
[P13.40]	Temperature dependence of chemical bonding and mechanical property of DLC films grown by photoemission-assisted plasma-enhanced CVD R. Sugimoto*, S. Ogawa, T. Takeno, K. Adachi, Y. Takakuwa, <i>Tohoku University, Japan</i>
[P13.41]	Micro and nano graphite particle embedded salt-PCMs for thermal energy storage applications R. Sudheer*, K.N. Prabhu, <i>National Institute of Technology Karnataka, India</i>
[P13.42]	Effect of temperature and voltage in preparation of solid carbon through electrolysis in molten CaCO₃-Li₂CO₃-LiCl electrolyte K.M.J. Wong, M. Gakim, A.J. Janaun, W.Y.H. Liew, N.J. Siambun*, <i>Universiti Malaysia Sabah, Malaysia</i>
[P13.43]	Molecular dynamics modeling of graphite and graphene melting N.D. Orekhov*, V.V. Stegailov, <i>Russian Academy of Sciences (JIHT RAS), Russia</i>
[P13.45]	Raman spectroscopy and XRD of some carbon molecular sieves membranes C. Sisu* ¹ , R. Iordanescu ² , I. Petreanu ¹ , V. Stanciu ¹ , I. Stefanescu ¹ , A.M. Vlaicu ³ , V.V. Grecu ⁴ , ¹ National R&D Institute for Cryogenics and Isotopic Technologies, Romania, ² National R&D Institute for Optoelectronics, Romania, ³ National R&D Institute for Materials Physics, Romania, ⁴ University of Bucharest, Romania
[P13.46]	Classification of carbons by the D and 2D Raman bands D.B. Schuepfer*, B. Smarsly, D.M. Hofmann, P.J. Klar, <i>Justus-Liebig-University Giessen, Germany</i>
[P13.47]	Chemical bonds distribution, thermal expansion and elastic modulus of carbyne C.H. Wong ¹ , E.V. Buntov ¹ , V.F. Rychkov ^{1,2} , M.B. Guseva ^{1,2} , A.F. Zatsepin* ¹ , ¹ Ural Federal University, Russia, ² Moscow State University, Russia
[P13.48]	Facile approach for the flame synthesis of carbon nanostructures possessing superhydrophobic or diamond-like properties K. Esmeryan* ^{1,2} , C. Castano ¹ , A. Bressler ¹ , C. Fergusson ¹ , M. Abolghasemibizaki ¹ , R. Mohammadi ¹ , ¹ Virginia Commonwealth University, USA, ² Georgi Nadjakov Institute of Solid State Physics, Bulgaria
[P13.50]	Optimization of the amount of binder in the chemical synthesis of a Pt/graphene electrocatalyst I. Petreanu* ¹ , A. Marinoiu ¹ , C. Sisu ¹ , C. Teodorescu ² , M. Varlam ¹ , I. Stefanescu ¹ , ¹ National R&D Institute for Cryogenic and Isotopic Technologies, ICSI, Romania, ² SC. Oltchim SA, Reserch Center, Romania
[P13.51]	Synthesis of graphene oxide/carbon nanotube composite materials and its application for proton exchange membrane fuel cell H.N. Yang*, W.J. Kim, <i>Konkuk University, Republic of Korea</i>
[P13.52]	Preparation, characterization and thermal properties of nanocomposites CuO-rGO and MnO-rGO For energy saving applications S.K. Abdel-Aal ¹ , A.S. Abdel-Rahman* ¹ , A. Naqvi ² , ¹ Cairo University, Egypt, ² Aligarh Muslim University, India
[P13.53]	Systematic study of doped graphene/ZnO/CuO nanowire nanocomposite as a high performance photocatalysts for CO₂ reduction J.J. Yu*, B. Liao, X. Zhang, X.Y. Wu, <i>Beijing Normal University, China</i>
[P13.54]	Fabrication of field-emission cathodes based on grapheme films on SiC O.A. Ageev, A.S. Kolomiytsev*, A.M. Svetlichniy, I.L. Jityaev, <i>Southern Federal University, Russia</i>
[P13.55]	Nanocomposite reduced graphene oxide with ZnO for NO₂ detection I. Ion*, G. Telipan, G. Zbarcea, <i>INCDIE ICPE CA, Romania</i>
[P13.56]	Nano-grained graphene for NO₂ gas sensing with ultrahigh sensitivity C.C. Tang, H.F. Yang, J.J. Li, C.Z. Gu*, <i>Chinese Academy of Sciences, China</i>
[P13.57]	Fabricating graphene/Ag 3D hybrids for enhanced surface selectively catalytic reactions J. Zhao, Z. Liu, B.G. Quan, C.Z. Gu, J.J. Li*, <i>Chinese Academy of Sciences, China</i>
[P13.58]	Diversified electronic excitations in extrinsic few-layer graphenes P.H. Shih* ¹ , Y.H. Chiu ² , M.F. Lin ¹ , ¹ National Cheng Kung University, Taiwan, ² National Pingtung University, Taiwan
[P13.59]	Influence of power Raman in multilayers de graphene oxides on the optoelectronics properties G. Poma ¹ , H. Ferreira ² , M. Quintana ¹ , A. Champi* ² , ¹ Universidad Nacional de Ingenieria, Peru, ² Universidade Federal do ABC, Brazil
[P13.60]	Influence of power Raman on the iron oxides nanoparticles/graphene with a magnetic field applied L. Menacho ¹ , L. Baciega ² , A. Bustamante ¹ , M. Quintana ³ , A. Champi* ² , ¹ Universidad Nacional Mayor de San Marcos, Peru, ² Universidade Federal do ABC, Brazil, ³ Universidad Nacional de Ingenieria, Peru
[P13.61]	Study of graphene oxide doped with silver for sensors application M. Sparvoli* ¹ , F. Banin ¹ , A. Cesarino ¹ , M.F.P. Silva ² , ¹ UFABC, Brazil, ² USP, Brazil
[P13.62]	Ferroelectric effect on the doping of graphene on PbZr_{0.52}Ti_{0.48}O₃ ceramic Y. Chen*, D. Wang, Y. Zhu, L. Jiang, C. Xin, W. Zhou, <i>Huazhong University of Science and Techonology, China</i>

[P13.63]	Change in electrical resistivity of multilayer nitrogen-doped graphene films due to impurities B. Tsuchiya*, T. Mizuno, S. Bandow, N. Matsunami, <i>Meijo University, Japan</i>
[P13.64]	Experimental and theoretical investigation of the graphene ribbons nonlinear electrical behavior R. Fates* ^{1,2} , P.A. Haddad ¹ , B. Huet ¹ , H. Bouridah ² , J.P. Raskin ¹ , ¹ <i>Université catholique de Louvain, Belgium</i> , ² <i>Université de Jijel, Algeria</i>
[P13.65]	Raman investigations and a drude model analysis of conductivity and free carriers in graphene F.S. Manciu* ¹ , C. Qiu ¹ , M. Manciu ¹ , J.D. Ciubuc ¹ , T. Khan ¹ , J.R. Tomshine ¹ , K.E. Bennet ¹ , ¹ <i>University of Texas at El Paso, USA</i> , ² <i>Mayo Clinic, USA</i>
[P13.66]	Graphene-like freestanding carbon nanosheets and large-area/patterned carbon nanofilms from indium-catalyzed graphite J.M. Ha*, H.S. Lim, J.W. Park, H.J. Kim, S.O. Cho, <i>Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea</i>
[P13.67]	Synthesis and characterization of graphene nanocomposites MgO@rGO and Fe₃O₄@rGO S.K. Abdel-Aal* ¹ , A.S. Abdel-Rahman ¹ , A.H. Naqvi ² , ¹ <i>Cairo University, Egypt</i> , ² <i>AMU University, India</i>
[P13.68]	Synthesis and characterization of nylon 66/tetra-para-amine-phenylporphyrin/graphene oxide compound for energy applications C.A. García* ¹ , E.C. Menchaca ¹ , M.A. García ² , R. Guardián ¹ , J. Uruchurtu ¹ , ¹ <i>UAEM Centro de Investigación en Ingeniería y Ciencias Aplicadas, Mexico</i> , ² <i>UAM-Iztapalapa, Mexico</i>
[P13.69]	NaTi₂(PO₄)₃/rGO composite electrode via pyro synthesis for batteries J. Kim*, J. Song, S. Park, J. Gim, V. Mathew, S. Kim, J. Jo, S. Kim, <i>Chonnam National University, Republic of Korea</i>
[P13.70]	Carbon composite electrode for redox flow battery H.S. Kim, <i>Korea Institute of Science and Technology, Republic of Korea</i>
[P13.71]	Systematic analysis of oxidized carbon fiber with different graphitization indexes applied as supercapacitor electrodes D.A.L. Almeida, A.B. Couto, N.G. Ferreira*, <i>Instituto Nacional de Pesquisas Espaciais, Brazil</i>
[P13.72]	Prediction of giant thermoelectric efficiency of carbon nanocomposites E.D. Eidelman ^{1,2} , A.P. Meilakhs* ¹ , ¹ <i>Ioffe Physical Technical Institute, Russia</i> , ² <i>St. Petersburg State Chemical-Pharmaceutical Academy, Russia</i>
[P13.73]	New carbon-hybrid nanoporous materials for enhanced hydrogen storage: Synthesis and characterization K. Walczak* ¹ , C. Journet-Gautier ² , E. Dunder ³ , V. Coulet ³ , P. Llewellyn ³ , C. Goze-Bac ¹ , B. Kuchta ³ , L. Firlej ¹ , ¹ <i>Université de Montpellier, France</i> , ² <i>Université Claude Bernard, Lyon, France</i> , ³ <i>Université Aix-Marseille, France</i>
[P13.74]	Supercapacitor properties of activated carbon derived from <i>Samanea saman</i> leaves V. Sattayarut* ¹ , P. Dulyaseree ¹ , V. Yordsri ² , W. Wongwiryapan ^{1,3} , ¹ <i>King Mongkut's Institute of Technology Ladkrabang, Thailand</i> , ² <i>National Metal and Materials Technology Center, Thailand</i> , ³ <i>Nanotec-KMITL Center of Excellence on Nanoelectronic Device Ladkrabang, Thailand</i> , ⁴ <i>Thailand Center of Excellence in Physics, Thailand</i>
[P13.75]	Level-anticrossing ODMR spectroscopy of spin centres in silicon carbide and diamond single crystals and based nanostructures P.G. Baranov* ¹ , A.N. Anisimov ¹ , V.A. Soltamov ¹ , G.V. Astakhov ¹ , V. Dyakonov ¹ , ¹ <i>Ioffe Institute, Russia</i> , ² <i>Julius-Maximilians University of Würzburg, Germany</i>

Note:

P13.23 will be presented in Session 5: Poster session 1

P13.44, P13.49 have been withdrawn