

Schedule of HeteroNanoCarb-2019

Monday 9th December 2019

15:30/16:00	Departure Bus from Barcelona Downtown/Airport http://benasque.org/2019heteronanocarb/#bus
~20:30	Arrival Bus to Benasque
21:00	Welcome cocktail

Tuesday 10th December 2019

Wednesday 11th December 2019

Thursday 12th December 2019

8:45 - 8:55	Remarks - Anouncements				
8:55-10:35	Session I	8:45-10:40	Session IV	8:45-10:40	Session VII
10:35-11:00	Coffee Break	10:40-11:05	Coffee Break	10:40-11:05	Coffee Break
11:00-13:00	Session II	11:05-13:15	Session V	11:05-13:00	Session VIII
13:00-18:30	Mini Workshops	13:15-18:30	Mini Workshops	13:00-18:30	Mini Workshops
18:30-20:25	Session III	18:30-20:20	Session VI	18:30-20:10	Session IX
20:25-21:55	Poster session / Cocktail	20:20-21:50	Poster session / Cocktail	21:00-...	Conference Dinner

Friday 13th December 2019

8:45	Departure Bus to Barcelona Airport/Downtown http://benasque.org/2019heteronanocarb/#bus
13:00-14:00	Arrival Bus to Barcelona Airport

Tuesday 10th December 2019

8:55 – 10:35	Session - I	Chairs: R. Arenal & O. Stephan
Invited Speaker	8:55 – 9:30	<i>Defects in 2D Metal Dichalcogenides: Doping, Alloys, Vacancies and Their Effects in Magnetism, Electronics, Catalysis, Optical Emission and Bio-Applications</i> Mauricio Terrones mut11@psu.edu
	9:30 – 9:45	<i>Phonons in low-dimensional materials</i> Vincent Meunier meuniv@rpi.edu
	9:45 – 10:00	<i>DFT Modelling of carbon nanomaterials</i> C. P. Ewels chris.ewels@cncrs-imn.fr
Invited Speaker	10:00 – 10:35	<i>Stability of edge magnetism against disorder in MoS2 nanoribbons with zigzag edges</i> Péter Vancsó, Imre Hagymási, Pauline Castenetto, Philippe Lambin vancso.peter@energia.mta.hu
10:35 – 11:00		COFFEE BREAK
11:00 – 13:00	Session - II	Chairs: V. Meunier & M. Mayne-L'Hermite
Invited Speaker	11:00-11:35	<i>New optical effects in 2D materials as probed by electron and photon spectroscopy in a Scanning Transmission Electron Microscope</i> Luiz Galvao Tizei, Alberto Zobelli, Steffi Woo, Jean-Denis Blazit, Marcel Tencé, Mathieu Kociak, Odile Stéphan odile.stephan@u-psud.fr
	11:35-11:50	<i>Piezo-doping of bilayer graphene and mechanical layer decoupling: an in-situ Raman spectroscopy of 12C/13C bilayer graphene at high pressure</i> A. Forestier, F. Balima, C. Bousige, D. Machon, M. Kalbac, and A. San Miguel colin.bousige@univ-lyon1.fr
	11:50-12:05	<i>Raman mapping analysis of liquid-exfoliated few-layer nanomaterials</i> Aline Amorim Graf, Matthew J. Large, Sean P. Ogilvie, Manoj Tripathi, Alice A. K. King, Alan B. Dalton a.amorim-graf@sussex.ac.uk
	12:05-12:20	<i>Characterization of Atomically Precise Graphene Nanoribbons by Raman Spectroscopy</i> J. Overbeck, G. Borin Barin, C. Daniels, M. Perrin, O. Braun, P. Ruffieux, V. Meunier, R. Fasel and M. Calame. jan.overbeck@empa.ch
Invited Speaker	12:20-12:55	<i>GO-ING ON WITH GRAPHENE OXIDE</i> Wolfgang K. Maser, A.M. Benito wmaser@icb.csic.es

Tuesday 10th December 2019

18:30 – 20:25	Session - III	Chairs: C. Ewels & M. Terrones
Invited Speaker	18:30-19:05	<p><i>Theory of defect ionization in 2D semiconductors and prediction of the double layer honeycomb structure</i> Damien J. West westd2@rpi.edu</p>
	19:05-19:20	<p><i>Bottom-up fabrication of graphene nanoribbons: from molecules to devices</i> Gabriela Borin Barin, Maria El Abbassi, Jan Overbeck, Juan Pablo Llinas, Colin Daniels, Rimah Darawish, Oliver Braun, Mickael Perrin, Akimitsu Narita, Klaus Müllen, Vincent Meunier, Jeffrey Bokor, Michel Calame, Pascal Ruffieux, Roman Fasel gabriela.borin-barin@empa.ch</p>
	19:20-19:35	<p><i>Preparation of 2H-MoTe2 films with high crystalline quality and large area by molecular beam epitaxy</i> Trung T. Pham, Roshan Castelino, Alex Felten, and Robert Sporken trung.phamthanh@unamur.be</p>
	19:35-19:50	<p><i>Iodine-Chlorine complexation in intercalated Graphite for positive Graphenium production</i> Xiaoyang CHE, Ferdinand HOF, Alain PENICAUD, Emmanuel PICHAUT, Anthony IMPELLIZZERI, Chris EWELS xiaoyang.che@u-bordeaux.fr</p>
Invited Speaker	19:50-20:25	<p><i>Visualization of multifractal superconductivity in a two-dimensional transition metal dichalcogenide in the weak-disorder regime</i> Miguel M. Ugeda mmugeda@dipc.org</p>
20:25-21:55	<i>Poster Session</i>	<i>Cocktail</i>

Wednesday 11th December 2019

8:45 – 10:40	Session - IV	Chairs: D. West & M. Ugeda
Invited Speaker	8:45 – 9:20	<i>Aerosol-assisted CCVD process: an up-scalable one-step method for the production of versatile VACNT carpets</i> Martine Mayne-L'Hermite martine.mayne@cea.fr
	9:20 – 9:35	<i>Lightweight Cu/Carbon Nanotube composites as promising future Cu substitutes</i> Rajyashree Sundaram, Guohai Chen, Takeo Yamada, Don Futaba, Kenji Hata, Atsuko Sekiguchi atsuko-sekiguchi@aist.go.jp
	9:35 – 9:50	<i>Base washing functionalised nanotubes with copper hydroxide for hybrid film fabrication</i> Peter Lynch, Sean Ogilvie, Mathew Large, J. Salvage, Alan Dalton p.j.lynch@sussex.ac.uk
	9:50 – 10:05	<i>Conventional and nitrogen doped vertically aligned carbon nanotubes for energy storage</i> Corentin QUERNE, Philippe BANET, Martine MAYNE-L'HERMITE, Pierre-Henri AUBERT, Mathieu PINAULT corentin.querne@cea.fr
Invited Speaker	10:05 – 10:40	<i>Characterizing Filling of Carbon Nanotubes by Optical Spectroscopy</i> S. Cambré, J. Campo, S. van Bezouw, B. Botka, W. Van Werveke, W. Wenseleers, J. Obrzut, J.A. Fagan sofie.cambre@uantwerpen.be
10:40 – 11:05		COFFEE BREAK
11:05 – 13:15	Session - V	Chairs: S. Cambré & R. Arenal
Invited Speaker	11:05-11:40	<i>Perspective of 2D materials: Macroscopic and nanoscopic viewpoints</i> Reshef Tenne reshef.tenne@weizmann.ac.il
	11:40-11:55	<i>Electron microscopy investigation of nanotubes from the misfit-layered compounds (La,Y)S-TaS₂</i> S. Hettler, M. Serra, R. Tenne, R. Arenal hettler@unizar.es
	11:55-12:10	<i>Covalently incorporated photoactive dyes onto transition metal dichalcogenides</i> Ruben Canton-Vitoria, Ryo Kitaura, Nikos Tagmatarchis canton@eie.gr
	12:10-12:25	<i>Unique properties and performance evaluation for ultra- and nano-filtration membranes containing nanostructured carbon materials</i> Edward Nxumalo edwardnxumalo@gmail.com
	12:25-12:40	<i>Theoretical ab-initio study of graphene vacancies and pyridinic defects for gas separation</i> N. N. Lathiotakis, Z. G. Fthenakis, and I. D. Petsalakis lathiot@eie.gr

Invited Speaker	12:40-13:15	Graphene-Based High Open-Circuit Voltage Heterojunction Solar Cell Dieter M. Gruen, Hisham A. Maddah and Sanjay K. Behura dietergruen@comcast.net
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Wednesday 11th December 2019

18:30 – 20:20	Session - VI	Chairs: E. Obraztsova & R. Tenne
Invited Speaker	18:30-19:05	MECHANISMS OF THE SP²-C TO SP³-C CONVERSION DURING THE LOW TEMPERATURE, LOW PRESSURE SYNTHESIS OF DIAMANE AND DIAMANOIDS FROM GRAPHENE Fabrice Piazza, Pascal Puech, Iann Gerber, Kathleen Gough, Germercy Paredes, Marc Monthiou monthiou@cemes.fr
	19:05-19:20	DOPED DIAMOND INTERFACES: APPLICATION IN ENERGY AND BIONICS Ahmed Farid Halima ahmed.f.halima@gmail.com
	19:20-19:35	Atomic configuration studies of n-type ultrananocrystalline diamond films R. Arenal, F. Hage, Q. Ramasse and D.M. Gruen arenal@unizar.es
	19:35-19:50	FABRICATION OF BN COATED CARBON NANOSTRUCTURES USING ALD BASED POLYMER DERIVED CERAMICS ROUTE C. Marichy, W. Hao, C. Journet catherine.marichy@univ-lyon1.fr
	19:50-20:05	Assessment of charge transfer phenomena in nanostructured composite materials using photoelectrochemical methods. Javier Hernández-Ferrer, Emin Istif, Alejandro Ansón-Casaos, Ana Santidrián, Ana M. Benito, Wolfgang K. Maser jhernandez@icb.csic.es
	20:05-20:20	Emulsion-templated graphene-silicone composites with robust exponential electromechanical response Marcus O'Mara, Sean P. Ogilvie, Matthew J. Large, Aline Amorim Graf, Peter J. Lynch, Jonathan P. Salvage, Alice A. K. King, Alan B. Dalton mo264@sussex.ac.uk
20:20-21:50	Poster Session	Cocktail

Thursday 12th December 2019

8:45 – 10:40	Session - VII	Chairs: T. Reiss & P. Ayala
Invited Speaker	8:45 – 9:20	Synthesis of boron nitride single crystals under high pressure impurity and isotope control for their functionalization Takashi Taniguchi taniguchi.takashi@nims.go.jp
	9:20 – 9:35	SYNTHESIS OF EXFOLIABLE HEXAGONAL BORON NITRIDE SINGLE CRYSTALS OF MILLIMETER SIZE Catherine Journet, Y. Li, V.t Garnier, P. Steyer, B. Toury catherine.journet@univ-lyon1.fr
	9:35 – 9:50	HEXAGONAL BORON NITRIDE: AN EMERGING 2D MATERIAL FOR PHOTONIC AND OPTOELECTRONIC APPLICATIONS Marie Krečmarová, R. Canet-Albiach, D. Andres-Penares, L. Fekete, P. Ashcheulov, A. Molina-Sánchez, J.P. Martínez-Pastor, J.F. Sánchez-Royo. Marie2.Krecmarova@uv.es
	9:50 – 10:05	1T/2H mixed-phase few-layer MoS₂ nanosheets vertically aligned on nitrogen-doped reduced graphene oxide as superior electrochemical ascorbic acid biosensor He Li , Zhihao Yuan, Wei Li, Minfang Chen, Rony Snyders, Wenjiang Li and Carla Bittencourt li_wenjiang@163.com
Invited Speaker	10:05 – 10:40	OPTICAL PROPERTIES of MoS₂, WS₂ and GRAPHENE GROWN by CHEMICAL VAPOR DEPOSITION P.V. Fedotov, F.D. Vasil'eva, P.V. Vinokurov, E.A. Obraztsova, V.R. Islamova, M.G. Rybin, S.A. Smagulova, E.D. Obraztsova elobr@mail.ru
10:40 – 11:05		COFFEE BREAK
11:05 – 12:55	Session - VIII	Chairs: M. Monthieux & T. Taniguchi
Invited Speaker	11:05-11:40	NO₂ Sensitivity and Selectivity of Single-Walled Carbon Nanotube-Hybrids upon cluster filling Paola Ayala paola.ayala@univie.ac.at
	11:40-11:55	Carbon nanostructures-based aqueous bioinks J. M. González-Domínguez, M. A. Álvarez, A. Baigorri, A. Ansón-Casaos, G. Huet, C. Hadad, A. Nguyen Van Lier, J. E. García-Bordejé, A. M. Benito, W. K. Maser jmgonzalez@icb.csic.es
	11:55-12:10	IN-SITU GRAPHENE OXIDE THERMAL ANALYSES VIA TEM/EELS: WATER DESORPTION, REDUCTION AND GRAPHITISATION Mario Pelaez-Fernandez, A. Bermejo, A.M. Benito, W.K. Maser, R. Arenal mariopf@unizar.es
	12:10-12:25	Nanomaterial Tissue Substrates to Probe Cellular Disease Mechanisms Rhiannon W. Harries, P. Lynch, M. Large, S. Ogilvie, L. Woodbine, T. Simon, G. Giamas, Alan B. Dalton, Alice A. K. King R.W.Harries@sussex.ac.uk
	12:25-12:40	Mechanochemical synthesis of "Sweet green graphene" Viviana Jehová González, Antonio M. Rodríguez, Ester Vázquez VivianaJ.Gonzalez@uclm.es

	12:40-12:55	<i>P3HT aggregation tuned by synergic interaction with different carbon nanostructures</i> E. Colom, E. Istif, J.M. González-Domínguez, J. Hernández-Ferrer, A.M. Benito, W.K. Maser ecolom@icb.csic.es
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Thursday 12th December 2019

18:30 – 20:00	Session - IX	Chairs: W. Maser & R. Arenal
Invited Speaker	18:30-19:05	<i>The Graphene Technology and Innovation Roadmap</i> Thomas Reiss thomas.reiss@isi.fraunhofer.de
	19:05-19:20	<i>Recent advancements in S/TEM technology: Thermo Scientific Spectra</i> Daniel G. Stroppa daniel.stroppa@thermofisher.com
Invited Speaker	19:20-19:55	... Alan Dalton A.B.Dalton@sussex.ac.uk
	19:55-20:00	<i>Concluding remarks</i>
21:00		<i>Congress Dinner</i>