

Sixth International Conference on
Multifunctional, Hybrid and Nanomaterials

11-15 March 2019, Sitges, Spain



Oral Programme

Sunday, 10 March 2019					
17:00-19:00	Registration Room: Hall Auditorium				
Monday, 11 March 2019					
07:00-08:30	Registration Room: Hall Auditorium				
Room:	Auditorium				
08:30-08:45	Welcome				
08:45-09:25	Honorary Lecture 1: [HON1] Hybrid Materials: A successful marriage between polymers and sol-gel chemistries C. Sanchez, <i>Collège de France, France</i>				
09:25-10:05	Honorary Lecture 2: [HON2] Organic-inorganic hybrid materials engineered by controlled radical polymerization: How to grow polymer chains in dense environment K. Matyjaszewski, <i>Carnegie Mellon University, USA</i>				
10:05-10:40	Coffee Break Room: Hall Auditorium/Tramuntana 1&2				
Rooms:	Garbi	Auditorium	Tramuntana 3	Llevant	Mestral
10:40-13:00	Symposium A: Session 1	Symposium B: Session 1	Symposium C: Session 1	Symposium B1: Session 1	Symposium ABC: Session 1
10:40-11:00	10:40-11:10 Featured Talk: [FTA01] Nanocellulose-based hybrids and foams: From single fibril properties to functional assemblies L. Bergstrom <i>Stockholm University, Sweden</i>	[SYMB01.01] Triaxial piezoelectric nanocomposite fibers for energy harvesting application F. Mokhtari*, J. Foroughi, G.M. Spinks, Z. Cheng, <i>University of Wollongong, Australia</i>	[SYMC01.01] Metal pyrazolate frameworks as multifunctional catalysts for C-C and C-N bond formations F. Cirujano* ¹ , E. Lopez Maya ² , J. Navarro ² , D. De Vos ¹ ¹ <i>KU Leuven, Belgium,</i> ² <i>Universidad de Granada, Spain</i>	[SYMB101.01] Active optical composites with responsive hybrid particles inside liquid inclusions D. Doblás Jiménez* ¹ , J. Hubertus ¹ , T. Kister ¹ , T. Kraus ^{1,2} ¹ <i>INM - Leibniz Institute for New Materials, Germany,</i> ² <i>Saarland University, Germany</i>	[ABC01.01] MicroRNA-targeted nanomedicine using porous silicon nanomaterials interfaced with nucleic acid engineering A. Bertucci* ^{1,2} , K-H. Kim ³ , J. Kang ¹ , J.M. Zuidema ¹ , E.J. Kwon ¹ , D. Kim ³ , S. Howell ¹ , F. Ricci ² , H-J. Jang ³ , M.J. Sailor ¹ ¹ <i>University of California San Diego, USA,</i> ² <i>University of</i>

					Rome Tor Vergata, Italy, ³ Kyung Hee, Republic of Korea
11:00-11:20	11:10-11:30 [SYMA01.01] Controlled anchoring of iron-oxide nanoparticles on polymeric nanofibers: A simple approach towards hybrid materials and multifunctional scaffolds H. Awada* ¹ , A. Al samad ¹ , D. Laurencin ¹ , R. Gilbert ² , A. El Jundi ¹ , L. Lemaire ^{3,4} , F. Franconi ^{3,4} , J. Larionova ¹ , Y. Guari ¹ , B. Nottelet ¹ ¹ Université de Montpellier, France, ² Rensselaer Polytech Inst, USA, ³ UNIV Angers, France, ⁴ PRISM-Icat, France	[SYMB01.02] Transparent multifunctional nanocomposite thin films: Extended study on electrophoretic deposition process of inorganic octahedral metal cluster F. Grasset* ^{1,2} , N.T.K. Nguyen ^{1,2} , A. Renaud ³ , M. Wilmet ^{1,3} , M. Dubernet ^{1,2} , N. Dumait ³ , M. Amela-Cortes ³ , Y. Molard ³ , N. Ohashi ^{1,2} , T. Ushikoshi ^{1,2} et al ¹ CNRS, Japan, ² RCFM, NIMS, Japan, ³ Univ Rennes, France	[SYMC01.02] Exploring versatile catalytic activity of stable porphyrin based MOFs A. Fateeva* ¹ , J-B. Tommasino ¹ , B. Abeykoon ¹ , F. Maillard ⁴ , A. Sorokin ² , A. Demessence ² , T. Devic ³ ¹ University Claude Bernard Lyon 1, France, ² IRCELYON, France, ³ Institut des Matériaux de Nantes, France, ⁴ LEPMI, France	[SYMB101.02] Core-dual shell heterostructure nanocomposites towards enhanced microwave absorption, heat dissipation, and sustainability Y. Bhattacharjee*, S. Bose Indian Institute of Science, India	[ABC01.02] Self-evolving thermal and motion sensors based on PP-g-PNIPAAm surgical meshes: From preparation to exploration of thermo-sensitivity S. Lanzalaco* ^{1,2} , P. Turón ^{1,3} , C. Weis ³ , C. Aleman ^{1,2} , E. Armelin ^{1,2} ¹ Universitat Politècnica de Catalunya, Spain, ² Barcelona Research Center in Multiscale Science and Engineering, Spain, ³ B. Braun Surgical, Spain
11:20-11:40	11:30-11:50 [SYMA01.02] Silk based bionanocomposite engineering for medical applications C. Belda Marín* ¹ , X. Mu ² , S. Vidal Yucha ² , D. L. Kaplan ² , C. Egles ¹ , J. Landoulsi ¹ , E. Guénin ¹ ¹ Sorbonne Universités, Université de Technologie de Compiègne, France, ² Tufts University, USA	11:20-11:50 Featured Talk: [FTB01] Membrane filtration and other applications of nanostructured polyaniline R. Kaner University of California, Los Angeles, USA	[SYMC01.03] Switchable photo-cathodic and photo-anodic behaviour of a metal-organic framework film in a photo-electrochemical cell R. Ifraemov, R. Shimoni, W. He, G. Peng, I. Hod* Ben-Gurion University of the Negev, Israel	[SYMB101.03] Functional molecular-nanostructured bulk metal oxide memory for nanoscale-nanosecond information storage A. Balliou*, D. Skarlatos, G. Papadimitropoulos, N. Glezos ¹ NCSR Demokritos, Greece,	[ABC01.03] Cellulose-based photonic architectures C. Dore ¹ , A. Espinha ¹ , J. Osmond ² , A. Mihi* ¹ ¹ Institute of Materials Science of Barcelona ICMAB - CSIC, Spain, ² Institute of Photonic Sciences, Spain

11:40-12:00	11:50-12:10 [SYMA01.03] Single and multiple-core composite plasmonic-polymer structures D. Jimenez de Aberasturi* ^{1,2} , M. Henriksen-Lacey ^{1,2} , J. Langer ^{1,2} , L. Scarabelli ^{1,3} , M. Schumacher ⁴ , H. Weller ⁴ , L.M. Liz Marzán ^{1,3} ¹ CIC biomaGUNE, Spain, ² Ciber-BBN, Spain, ³ University of California, USA, ⁴ Universität Hamburg, Germany	11:50-12:20 Featured Talk: [FTB02] Unravelling the amazing optoelectronic properties of halide perovskites D. Cahen ^{1,2} , ¹ Weizmann Institute, Israel, ² Bar-Ilan University, Israel	[SYMC01.04] CO2 separation with water complicity: In situ crystallographic characterization of a unique pocket for CO2 separation experiments in humid conditions V. Colombo* ¹ , M. Rodríguez-Albelo ² , C. Montoro ² , A. Sironi ¹ , J.A. Rodríguez Navarro ² ¹ Università degli Studi di Milano, Italy, ² Universidad de Granada, Spain	[SYMB101.04] Structural characterization of Mg/SiC nano-composite fabricated by powder metallurgy A. Al-Maamari, A. Iqbal*, D. Nuruzzaman University Malaysia Pahang (UMP), Malaysia	[ABC01.04] Bioinspired nacre-like alumina-based composites assembled by heteroaggregation of particles M. Muñoz*, M. Cerbelaud, A. Videcoq, F. Rossignol Univ. Limoges, IRCER, France
12:00-12:20	12:10-12:30 Presentation withdrawn		[SYMC01.05] Highly specific molecules as linkers in MOFs: A solid state sensor for the selective detection of NO2 M. Schulz*, A. Gehl, J. Schlenkrich, H.A. Schulze, S. Zimmermann, A. Schaate Leibniz University Hanover, Germany	[SYMB101.05] Polymer-based thermoelectric materials J.W. Xu Agency for Science, Technology and Research (A*STAR), Singapore	[ABC01.05] Bio-inspired nanochannels with superwettability Y. Tian Chinese Academy of Sciences, China
12:20-12:40	12:30-12:50 [SYMA01.05] Janus, Triphasic, and Step-Gradient Nanocomposite Hydrogels for Controlled Cell Migration in 3D Network N. Kehr University of Münster, Germany	[SYMB01.03] Magnetocatalytic Janus micromotors as multifunctional materials in nanoscale operations B. Jurado Sánchez*, M. Pacheco, A. Escarpa Universidad de Alcalá de Henares, Spain	12:20-12:50 Featured Talk: [FTC01] Chemical approach for the synthesis of silica-based porous materials Kazuyuki Kuroda Waseda University, Japan	[SYMB101.06] Contribution of Auger spectroscopy to the study of hybrid materials interfaces at nanoscale J. Allouche IPREM CNRS, France	[ABC01.06] Improved biocatalytic activity of enzymes immobilized in tailored siliceous mesostructured cellular foams for the conversion of CO2 to methanol M. Zezzi do Valle Gomes*, P. S. Nabavi Zadeh, B. Åkerman, A. Palmqvist Chalmers University of Technology, Sweden

12:40-13:00		[SYMB01.04] Investigation of the catalytic effects of electrophoretically deposited ZnO/ZnS/carbon nanocomposites J.D. Goossen*, M. Bredol Fachhochschule Münster, Germany		[SYMB101.07] Chiral hybrid materials based on pyrrolidine builder units to perform asymmetric michael additions with high stereocontrol S. Llopis*, T. García, A. Cantín, A. Velty, U. Díaz, A. Corma CSIC/UPV(ITQ), Spain	[ABC01.07] Tunable color film inspired by structural color change of a longhorn beetle <i>Tmesisternus Isabellae</i> H-B. Seo, S-Y. Lee* Sogang University, Republic of Korea
13:00-14:00	Lunch Noray Restaurant				
Rooms:	Garbi	Auditorium	Tramuntana 3	Llevant	Mestral
14:00-16:00	Symposium A: Session 2	Symposium B: Session 2	Symposium C: Session 2	Symposium B1: Session 2	Symposium ABC: Session 2
14:00-14:20	[SYMA02.01] Functional hybrid nanostructures of DNA-spider silk conjugates M. Humenik*, T. Preiß, D. Piro, A. Molina, T. Scheibel University Bayreuth, Germany	[SYMB02.01] Bioinspired functional materials W.L. Noorduin AMOLF, The Netherlands	14:00-14:30 Featured Talk: [FTC02] Optoelectronic processes in covalent organic frameworks T. Bein, University of Munich (LMU), Germany	[SYMB102.01] Enhanced thermoelectric properties of reinforcing fibers covered with nanoparticle-based hierarchical coatings G. Karalis*, K. Tsirka, L. Tzounis, A. Paipetis University of Ioannina, Greece	[ABC02.01] Hierarchical coral-like carbon nanoarchitectures as versatile porous supports for metalloporphyrin electrocatalysts S. Kubo*, A. Endo, T. Imura, S. Yamazaki National Institute of Advanced Industrial Science and Technology (AIST), Japan
14:20-14:40	[SYMA02.02] Pathway to "intelligence": Using stimuli-responsive materials for constructing smart systems S. Soh National University of Singapore, Singapore	[SYMB02.02] DENdrimicelles: Dendrimer-encapsulated-nanoparticle based coacervate-core micelles J.B. ten Hove ^{1,2} , F.W.B. van Leeuwen ^{2,1} , A.H. Velders ^{*1,2} ¹ Wageningen University, The Netherlands, ² Leiden University Medical Centre, The Netherlands	14:30-14:50 [SYMC02.01] Computational-guided discovery of MOFs for energy and environmental-related application M. Wahiduzzaman, G. Maurin* Université Montpellier, France	[SYMB102.02] Self-assembly of 3-dimensional single crystal piezoelectric PbTiO ₃ nanostructure arrays H.C. Song ^{*1} , W.T. Reynolds Jr. ² , S. Priya ³ ¹ Korea Institute of Science and Technology, Republic of Korea, ² Virginia Tech, USA, ³ Penn State University, USA	[ABC02.02] Interfacial synthesis of graphdiynes R. Sakamoto ^{*1,2} , R. Shiotsuki ¹ , J. Komeda ¹ , H. Nishihara ¹ ¹ The University of Tokyo, Japan, ² JST-PRESTO, Japan

14:40-15:00	<p>[SYMA02.03] Multifunctional nanoparticles for early diagnosis of Alzheimer's disease S. Rahimipour*¹, R. Popovtzer¹, D. Frenkel² ¹Bar-Ilan University, Israel, ²Tel-Aviv University, Israel</p>	<p>14:40-15:10 Featured Talk: [FTB03] Graphene and related materials for photonics and optoelectronics Andrea Ferrari <i>University of Cambridge, UK</i></p>	<p>14:50-15:10 [SYMC02.02] Exploring the MOF-peptide interface A. Sola Rabada*¹, Z. Westcott¹, I. Efimov¹, S. Lymperopoulou², D. Bradshaw², C. Perry¹ ¹Nottingham Trent University, UK, ²University of Southampton, UK</p>	<p>[SYMB102.03] Finely tuned smart hybrid silica nanocontainers structure for control release A.S. Rodrigues E. Coutinho, J. Gonçalves, B. Lopes, T. Ribeiro, J.P.S. Farinha, C. Baleizão* <i>Instituto Superior Técnico, Portugal</i></p>	<p>[ABC02.03] Macroscopic morphology control for mesoporous inorganic particles from multicomponent polymer blends S. Kim*¹, J. Hwang², U. Wiesner³, J. Lee² ¹Pohang University of Science and Technology (POSTECH), Republic of Korea, ²Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea, ³Cornell University, USA</p>
15:00-15:20	<p>[SYMA02.04] Microvascularized hydrogel chips via programmed self-assembly V. Adibnia*¹, M. Mirbagheri^{1,2}, P. Latreille¹, J. Faivre^{1,3}, B. Cecyre¹, J. Bouchard¹, T. Delair³, L. David³, D.K. Hwang², X. Banquy¹ ¹University of Montreal, Canada, ²Ryerson University, Canada, ³Universite de Lyon, France</p>	<p>15 :10-15:30 [SYMB02.07] Soft and smart hybrid materials containing emissive metal clusters Y. Molard¹, M. Amela-Cortes¹, S. Khlifi¹, N. Dumait¹, S. Paofai¹, K. Guy¹, M. Robin¹, N. Brandhonneur¹, G. Dollo¹, P. Ehni², S. Cordier*¹, ¹Université de Rennes, France, ²University of Stuttgart, Germany</p>	<p>15 :10-15 :30 [SYMC02.03] Tailored microporous solids as macroligands for heterogenized molecular catalysts J. Canivet^{1,2}, F.M. Wisser^{1,2}, Y. Mohr*^{1,2}, E.A. Quadrelli^{1,3}, D. Farrusseng^{1,2} ¹CNRS, France, ²University of Lyon, France, ³CPE Lyon, France</p>	<p>[SYMB102.04] A one-pot synthesis of multibranched Au/TiO₂ hybrid nanoparticles under flow conditions: Exploiting the plasmonic features for catalytic purposes M. Marelli*, F. Bossola, V. Dal Santo, R. Psaro, L. Polito <i>ISTM-CNR, Italy</i></p>	<p>[ABC02.04] Noble carbons potential in the field of catalysis N. Lopez Salas <i>Max Planck Institute of Colloids and Interfaces, Germany</i></p>
15:20-15:40	<p>[SYMA02.05] Nanofibrillar cellulose hydrogels as lyoprotective matrices in freeze-drying of adipose tissue extract and HepG2 cell spheroids A. Merivaara*¹, V-V. Auvinen^{1,2}, J. Kiiskinen¹, H. Paukkonen¹, P. Laurén¹, R. Koivuniemi¹, R. Sarkanen³, T. Ylikomi³, T. Laaksonen², M.</p>	<p>15:30-15:50 [SYMB02.08] A novel composite based on a tungsten-containing cluster with hydrogen evolution reaction activity M. Morant-Giner*¹, J. Romero¹, N.Y. Shmelev², A.L. Gushchin², A. Alberola¹, S. Tatay¹, A. Forment-Aliaga¹, E.</p>	<p>15:30-15:50 [SYMC02.04] Synthesis and functionalization of (dynamic) porous polymer thin films M. Tsotsalas <i>Karlsruhe Institute of Technology, Germany</i></p>	<p>[SYMB102.05] Surprisingly high sensitivity of copper nanoparticles toward coordinating ligands: Consequences for the hydride reduction of benzaldehyde X. Frogneux*^{1,2}, F. Borondics³, S. Lefrançois¹, F. D'Accriscio^{1,2},</p>	<p>[ABC02.05] Expandable covalent organic frameworks M. Fang*, C. Montoro, M. Semsarilar <i>Institut Européen des Membranes, France</i></p>


	Yliperttula ^{1,4} et al <i>¹University of Helsinki, Finland, ²Tampere University of Technology, Finland, ³University of Tampere, Finland, ⁴University of Padova, Italy</i>	Coronado ¹ , <i>¹Instituto de Ciencia Molecular, Spain, ²Nikolaev Institute of Inorganic Chemistry, Russia</i>		C. Sanchez ^{1,2} , S. Carencó ¹ <i>¹Sorbonne Université, France, ²Collège de France, France, ³SOLEIL Synchrotron, France</i>	
15:40-16:00	[SYMA02.06] Synthetic gene networks encoded on magnetic microparticle scaffolds T-Y. Wei, W. Ruder* <i>University of Pittsburgh, USA</i>	15:50-16:10 [SYMB02.03] Co-assembly of cellulose nanocrystals and clay nanoplatelets studied by time-resolved X-ray scattering P. Munier*, M. Segad, L. Bergström <i>Stockholm University, Sweden</i>		[SYMB102.06] A free-standing reduced graphene oxide (RGO) aerogel as supporting electrode in a catholyte Li-S battery C. Cavallo* ¹ , M. Agostini ¹ , J. Genders ^{1,2} , M.E. Abdelhamid ³ , A. Matic ¹ <i>¹Chalmers University of Technology, Sweden, ²University of Southampton, UK, ³CSIRO, Australia</i>	[ABC02.06] MOF derived bimetal oxide/carbon nanocomposites: Synthesis and photocatalytic applications M.Z. Hussain* ^{1,2} , R.A. Fischer ² , Y. Xia ¹ <i>¹University of Exeter, UK, ²Technical University of Munich, Germany</i>
16:00-17:00	Coffee Break and Poster Session 1 Room: Hall Auditorium/Tramuntana 1&2				
Rooms:	Garbi	Auditorium	Tramuntana 3	Llevant	Mestral
17:00-18:20	Symposium A: Session 2 (cont.)	Symposium B: Session 2 (cont.)	Symposium C: Session 2 (cont.)	Symposium B1: Session 2 (cont.)	Symposium ABC: Session 2 (cont.)
17:00-17:20	17:00-17:30 Featured Talk: [FTA02] Nano-and microfabricated hydrogels for regenerative engineering A. Khademhosseini, <i>UCLA, USA</i>	[SYMB02.04] Switchable, helical assemblies of gold nanorods based on liquid-crystalline templates M. Baginski ¹ , G. González-Rubio ² , W. Lewandowski* ¹ <i>¹University of Warsaw, Poland, ²CICbiomaGUNE, Spain</i>	[SYMC02.05] Conjugated polymers for photocatalytic hydrogen evolution from water – Porous or non-porous? R.S. Sprick*, Y. Bai, C. Aitchison, A. Cooper <i>University of Liverpool, UK</i>	[SYMB102.07] Nanoconfined controlled reduction and growth of silver in hollow gold nanoshell particles S. Boujday* ¹ , L. Zhang ^{1,2} , P. Chen ³ , A. Loiseau ¹ , D. Brouri ¹ , S. Casale ¹ , M. Salmain ^{1,2} , B. Liedberg ³ <i>¹Sorbonne Université, France, ²CNRS, France, ³Nanyang Technological University, Singapore</i>	[ABC02.07] Restoration of mechanical and electrical properties of nanomodified epoxy materials M. Kosarli, G. Foteinidis*, K. Tsirka, A.S. Paipetis <i>University of Ioannina, Greece</i>

17:20-17:40	17:30-18:00 Featured Talk: [FTA03] Bioinspired structures using biopolymers and bioactive glass nanoparticles in biomedicine J. Mano, <i>University of Aveiro, Portugal</i>	[SYMB02.05] Anchoring organophosphorus ligands in solid functional materials for lanthanide separation W. Zhang*, R. Koivula <i>University of Helsinki, Finland</i>	[SYMC02.06] 3d printed scaffolds with microporosity for tissue engineering and drug delivery H. Dang ¹ , Q. Peiffer ¹ , T. Shabab ¹ , A. Shafiee ¹ , K. Fox ² , D. Hutmacher ¹ , P. Tran* ¹ ¹ <i>Queensland University of Technology, Australia</i> , ² <i>RMIT University, Australia</i>	[SYMB102.08] Magic number colloidal clusters N. Vogel*, M. Engel, E. Spiecker, J. Wang, C. Mbah, T. Przybilla <i>Friedrich-Alexander University Erlangen-Nürnberg, Germany</i>	[ABC02.08] Synthesis of porous core-shell nanostructures by low temperature ozone treatment of silica-based organic-inorganic hybrid materials H. Joshi*, W. Schmidt, F. Schüth <i>Max-Planck-Institut für Kohlenforschung, Germany</i>
17:40-18:00		[SYMB02.06] Ionic liquid-mediated low-temperature synthesis of hexagonal titanium-oxyhydroxyfluoride particles P. Voepel ¹ , I. Djerdj ² , B.M. Smarsly* ¹ ¹ <i>Justus-Liebig-University, Germany</i> , ² <i>J. J. Strossmayer University of Osijek, Croatia</i>	[SYMC02.07] Synthesis of porous polymeric dispersions from the combination of RAFT-mediated PISA and hypercrosslinking chemistry A. James*, R. Dawson <i>University of Sheffield, UK</i>	[SYMB102.09] The application of CO₂-induced self-assembly to the synthesis of amine-functionalized silica for CO₂ capture M. Afeworki, Q. Li, D. Calabro* <i>ExxonMobil Research and Engineering Company, USA</i>	[ABC02.09] Influence of micropores to the capacitance of electric double layer capacitors based on polymer gel electrolytes and porous carbon xerogel electrodes K. Anneser, S. Braxmeier, G. Reichenauer* <i>ZAE Bayern, Germany</i>
Room:	Auditorium				
18:15-19:00	[TT01] New hybrid materials for ultrasensitive biosensing and regenerative medicine M.M. Stevens, <i>Imperial College London, UK</i>				
19:00-20:30	Welcome Reception and Poster Session 1 Room: Tramuntana 1&2				

Tuesday, 12 March 2019

Room:	Auditorium				
08:30-09:15	Plenary Lecture 1: [PL01] Smart interfacial materials from super-wettability to binary cooperative complementary systems L. Jiang ¹ , ¹ Chinese Academy of Sciences, China, ² Beihang University, China				
Rooms:	Garbi	Auditorium	Tramuntana 3	Llevant	Mestral
09:20-10:20	Symposium A : Session 3	Symposium B: Session 3	Symposium C: Session 3	Symposium B1: Session 3	Symposium ABC: Session 3
09:20-09:40	[SYMA03.01] Nanoporous plasmonic meta-electrodes for intracellular recordings at network level on high-density CMOS-MEAs M. Dipalo* ¹ , G. Melle ¹ , L. Lovato ¹ , A. Jacassi ¹ , F. Santoro ¹ , V. Caprettini ¹ , A. Schirato ² , A. Alabastri ² , D. Garoli ¹ , G. Bruno ¹ et al ¹ Istituto Italiano di Tecnologia, Italy, ² Rice University, USA	[SYMB03.01] Luminescent mechanochromic and thermochromic materials based on copper iodide compounds B. Huitorel ¹ , T. Gagoin ¹ , S. Perruchas* ^{1,2} ¹ Laboratoire PMC Ecole Polytechnique, France, ² Institut des Matériaux, France	09:20-09:50 Featured Talk: [FTC03] Functional porous hydrogels through emulsion templating: Superabsorption, stimulus response, and shape memory M. Silverstein, Technion – Israel Institute of Technology, Israel	[SYMB103.01] Cationic silica nanoparticle-based nanocomposite bioink M. Lee*, K. Bae, M. Zenobi-Wong ETH Zurich, Switzerland	[ABC03.01] Total scattering studies of water-mediated exfoliation of hybrid two-dimensional thioestannates M.S. Hvid ¹ , H.S. Jeppesen ¹ , P. Lamagni ¹ , K.M. Jensen ² , N. Lock* ¹ ¹ Aarhus University, Denmark, ² University of Copenhagen, Denmark
09:40-10:00	[SYMA03.02] Encapsulation, germination, and outgrowth of bacterial spores encapsulated in non-physiological materials, and implications for the detection and healing of cracks J. Benson*, M. Quin, C. Schmidt-Dannertt, A. Aksan University of Minnesota, USA	[SYMB03.02] Hybrid nanomaterials based on 3D graphene and polyporphyrins for visible-light photocatalysis M. Ussia* ^{1,2} , E. Bruno ^{1,2} , F. Ruffino ^{1,2} , D. Vitalini ³ , E. Spina ³ , V. Privitera ² , S.C. Carroccio ^{2,3} ¹ University of Catania, Italy, ² CNR-IMM Ct-Unit, Italy, ³ CNR-IPCB, Italy	09:50-10:20 Featured Talk: [FTC04] Reticular chemistry: MOF design strategies to applications Mohamed Eddaoudi King Abdullah University of Science and Technology (KAUST), Saudi Arabia	[SYMB103.02] Design of multi-functionalized mesoporous silica nanoparticles for biomedical applications C. von Baeckmann* ¹ , R. Guillet-Nicolas ¹ , D. Renfer ² , H. Kählig ¹ , F. Kleitz ¹ ¹ University of Vienna, Austria, ² University of Laval, Canada	[ABC03.02] Preparation and characterization of polyamide-6 based composite chitosan membranes modified by various clays E. Chrzanowska, W. Kujawski*, M. Gierszewska Nicolaus Copernicus University, Poland
10:00-10:20	[SYMA03.03] Amyloid-tagged proteins as building blocks for functional materials R. Milani* ¹ , A. Tullila ¹ , M. Lienemann ¹ , C. Pigliacelli ^{3,2} , T. Nevanen ¹ ,	[SYMB03.03] MP-SPR for characterization of functional nanolayers and evaluation of surface interactions R. Bombera*, A. Järvinen, J. Kuncova-Kallio		[SYMB103.03] Electron-rich carbon nanodots for base-catalysis S. Rat*, M. Antonietti Max Planck Institute for Colloids and Interfaces, Germany	[ABC03.03] Nanoparticle catalysts comprising of immiscible elements for direct H₂O₂ synthesis: A joint theory-experiment study

	P. Metrangolo ^{2,1} <i>¹VTT Technical Research Centre of Finland Ltd, Finland, ²Politecnico di Milano, Italy, ³Aalto University, Finland</i>	BioNavis Ltd, Finland			D. Kim ¹ , H. Nam ¹ , Y-H. Cho ² , J-P. Ahn ¹ , K-Y. Lee ² , S.Y. Lee ¹ , S.S. Han* ¹ <i>¹Korea Institute of Science and Technology, Republic of Korea, ²Korea University, Republic of Korea</i>
10:20-11:20	Coffee Break and Poster Session 2 Room: Hall Auditorium/Tramuntana 1&2				
Rooms:	Garbi	Auditorium	Tramuntana 3	Llevant	Mestral
11:20-12:40	Symposium A: Session 3 (cont.)	Symposium B: Session 3 (cont.)	Symposium C: Session 3 (cont.)	Symposium B1: Session 3 (cont.)	Symposium ABC: Session 3 (cont.)
11:20-11:40	11:20-11:50 Featured Talk: [FTA04] Fracture resistance and internal architecture of hybrid materials P. Fratzl <i>Max Planck Institute, Germany</i>	[SYMB03.04] Metal nanoclusters based emissive hybrids for smart solar windows S. Khelifi* ¹ , J. Bignon ¹ , M. Amela-Cortes ¹ , N. Dumait ¹ , G. Loas ¹ , S. Cordier ¹ , S. Morris ² , Y. Molard ¹ <i>¹Université de Rennes 1, France, ²University of Oxford, UK</i>	[SYMC03.01] Soft functional nanocellulose biohybrid foams G. Nyström <i>Empa, Switzerland</i>	[SYMB103.04] Novel synthesis of SERS tags via galvanic replacement-seeded growth method S. Rodal-Cedeira* ¹ , L. Polavarapu ² , A. Laporta ³ , S. Bals ³ , J. Pérez-Juste ¹ , I. Pastoriza-Santos ¹ <i>¹CINBIO Universidade de Vigo, Spain, ²Ludwig-Maximilians University of Munich, Germany, ³EMAT Universiteit Antwerpen, Belgium</i>	[ABC03.04] Synchrotron based techniques for studying hybrid nanomaterials as electrodes in lithium/sodium ion batteries Q.F. Gu* ¹ , H. Brand ¹ , A. D'angelo ¹ , B. Zhang ² , X.B. Yu ² , W.J. Li ³ , S.L. Chou ³ <i>¹Australian Synchrotron (ANSTO), Australia, ²Fudan University, China, ³University of Wollongong, Australia</i>
11:40-12:00	11:50-12:10 [SYMA03.04] Bioelectrochemical TiN FDH Catalyst for CO2 Reduction to HCOOH F. Arena* ^{1,2} , G. Giuffredi ^{1,2} , A. Perego ¹ , S. Donini ¹ , E. Parisini ¹ , F. Di Fonzo ¹ <i>¹Istituto Italiano di Tecnologia, Italy, ²Politecnico di Milano, Italy</i>	[SYMB03.05] PbZrTiO3 Ferroelectric oxide as electron extraction material in stable halide perovskite solar cells M. Lira-Cantu <i>Catalan Institute of Nanoscience and Nanotechnology (ICN2), CSIC and The Barcelona Institute of Science and Technology (BIST), Spain</i>	[SYMC03.02] Enhanced methane reforming over hierarchically structured supported Ni catalyst A. Tathod ¹ , N. Hayek ¹ , D. Simakov ² , O.M. Gazit* ¹ <i>¹Israel Institute of Technology-Technion, Israel, ²University of Waterloo, Canada</i>	[SYMB103.05] A metal-free supercapacitor using poly(ionic liquid)-derived carbon fibers as a current collector E. Josef*, R. Yan, M. Oschatz, R. Guterman, M. Antonietti <i>Max Planck Institute of Colloids and Interfaces, Germany</i>	[ABC03.05] Hybrid nanomaterials activated by plasmonic: Application in sensor devices C. Queffelec* ¹ , B. Humbert ¹ , B. Bujoli ¹ , D.A. Knight ³ <i>¹University of Nantes, France, ²Florida Institute of Technology, USA</i>
12:00-12:20	12:10-12:30 [SYMA03.05]	[SYMB03.06] New insights in molten salts synthesis of	12:00-12:30 Featured Talk: [FTC05] Cooperative adsorption	[SYMB103.06] Hybrid rGO-PbS QDs film for optoelectronic applications	[ABC03.06] Functional Nanostructures doped PEDOT:PSS for

	Surfactant-free β-galactosidase micromotors for "on-the-move" lactose hydrolysis R. María-Hormigos, B. Jurado-Sánchez*, A. Escarpa <i>Universidad de Alcalá de Henares, Spain</i>	nanoperovskites for designing high activity oxygen reduction catalysts F. Gonell*, C. Sánchez-Sánchez, V. Vivier, C. Laberty-Robert, C. Sanchez, D. Portehault <i>CNRS, France</i>	and gas separations in metal-organic frameworks J.R. Long, <i>UCB, USA</i>	A. Litvin*, A. Babaev, S. Cherevkov, P. Parfenov, M. Baranov, A. Baranov <i>ITMO University, Russia</i>	enhanced thermoelectric (TE) applications Q. Zhu <i>IMRE, A*STAR, Singapore</i>
12:20-12:40		[SYMB03.07] Ordered mesoporous silica monoliths with magnetic properties induced by the multi-scale control of nanocrystals of metal cyanide, metal oxide and metal alloy embedded in the porosity A. Bleuzen*, V. Trannoy, L. Altenschmidt, R. Moulin, G. Fornasieri, M. Impéror-Clerc, A. Bordage <i>Université Paris-Sud, France</i>		[SYMB103.07] Fabrication of graphene oxide-carboxymethyl cellulose nanocomposite hydrogel beads for pH-sensitive, controlled release of doxorubicin A. Ayucitra*, Y-H. Ju <i>National Taiwan University of Science and Technology, Taiwan</i>	[ABC03.07] New initiating system for performing photoinduced thermalfrontal polymerization of carbon-fiber/epoxy composites X. Allonas* ¹ , M. Lecomptère ¹ , D. Maréchal ² et al <i>¹University of Haute Alsace, France, ²Mäder Research, France</i>
12:40-14:10	Lunch Noray Restaurant				
12:40-14:10	The European Research Council: Funding opportunities for scientists to pursue their dreams				
Rooms:	Garbi	Auditorium	Tramuntana 3	Llevant	Mestral
14:10-16:50	Symposium A: Session 4	Symposium B: Session 4	Symposium C: Session 4	Symposium B1: Session 4	Symposium ABC: Session 4
14:10-14:30	14:10-14:40 Featured Talk: [FTA05] Biomimetic polymer vesicles as active functional biomaterials S. Lecommandoux, <i>Université de Bordeaux, France</i>	[SYMB04.01] Effect of process parameter on 3D printing of continuous carbon fiber reinforced plastics S. Kobayashi*, W. Yasunaga, T. Osada <i>Tokyo Metropolitan University, Japan</i>	[SYMC04.01] Nanoparticles organization controls their potency as universal glues for interfaces between polymer networks N. Molinari ^{1,2} , S. Angioletti-Uberti* ¹ <i>¹Harvard University, USA,</i>	[SYMB104.01] Advanced benzoxazine-functionalized graphene oxide nanocomposites E.I. Biru* ¹ , S.A. Garea ¹ , H. Iovu ^{1,2} <i>¹University Politehnica of Bucharest, Romania, ²Academy of Romanian Scientists, Romania</i>	[ABC04.01] Integrated manufacturing system for synthesis of nanoparticles of metals and metal compounds A. Zhigach* ¹ , M. Kuskov ¹ , I. Leipunsky ¹ , A. Gorbachev ¹ , E. Afanasenkova ¹ , O. Safronova ¹ , N. Berezkina ¹ , G. Lopez ² , <i>¹Russian</i>

			² Imperial College London, UK		Academy of Science, Russia, ² Northeastern University, USA
14:30-14:50	14:40-15:00 [SYMA04.01] Gene silencing nanoparticle platform for in situ vascular matrix repair S. Carney ^{1,2} , A. Camardo ¹ , T. Broekelmann ³ , R. Mecham ³ , A. Ramamurthi ^{*1,2} ¹ Cleveland Clinic, USA, ² Case Western Reserve University, USA, ³ Washington University at St. Louis, USA	[SYMB04.02] Metal-organic nanosheets: Programmable two-dimensional materials J.A. Foster University of Sheffield, UK	[SYMC04.02] Electrochemical fabrication and evaluation of Ni-based catalysts for hydrogen evolution reaction H. Kim*, H. Park, D-K. Kim, S.H. Oh, S-K. Kim Chung-Ang University, Republic of Korea	[SYMB104.02] Avoiding noble metal persistence: The ultrasmall-in-nano approach A. Katrina Mapanao ^{*1,2} , D. Cassano ¹ , S. Pocoví-Martínez ³ , M. Santi ¹ , V. Voliani ¹ ¹ Istituto Italiano di Tecnologia, Italy, ² Scuola Normale Superiore, Italy, ³ Universitat de Valencia, Italy	[ABC04.02] General mechanism for unique lamellar-like porous nanofibers O. Elishav*, G. Shter, G. Grader Technion – Israel Institute of Technology, Israel
14:50-15:10	15:00-15:20 [SYMA04.02] Hybrid nanocrystals as smart Trojan horses against cancer for effective theranostic applications V. Cauda et al Politecnico di Torino, Italy	14:50-15:20 Featured Talk: [FTB05] 3- and 2-dimensional materials for capacitive energy storage P. Simon ^{1,2} , ¹ Université Paul Sabatier Toulouse, France, ² French network on electrochemical energy storage, France	[SYMC04.03] Active adsorbents for molecular separation J. Shang ^{*1} , G. Li ² , Q. Gu ³ , Z. Liu ² , P. Webley ² , E. May ⁴ ¹ City University of Hong Kong, Hong Kong, ² The University of Melbourne, Australia, ³ Australian Synchrotron, Australia, ⁴ The University of Western Australia, Australia	[SYMB104.03] Synthesis of recyclable Fe₃O₄@EDTA@Fe nanocomposite for efficient N₂O recovery from flue gas M-A. Sharif*, H-Y. Cheng, A-J. Wang Research Center for Eco-Environmental Sciences, China	[ABC04.03] Using pyridine amidoximes in the presence of polytopic carboxylic acids for the synthesis of novel coordination polymers I. Mylonas-Margaritis ^{*1} , C. G. Efthymiou ¹ , T. Lazarides ² , P. McArdle ¹ , A. Escuer ³ , C. Papatriantafyllopoulou ¹ ¹ National University of Ireland Galway, Ireland, ² Aristotle University of Thessaloniki, Greece, ³ Universitat de Barcelona, Spain

15:10-15:30	15:20-15:40 [SYMA04.03] Surface engineered nanoparticles of biocompatible metal-organic frameworks for cancer treatment A. Mielcarek* ^{1,2} , T. Simon-Yarza ^{1,2} , R. Gref ² , X. Li ² , P. Couvreur ² , C. Serre ¹ ¹ PSL University, France, ² University Paris Saclay, France	15:20-15:50 Featured Talk: [FTB06] Molecularly doped metals: Recent progress D. Avnir, <i>Hebrew University of Jerusalem, Israel</i>	[SYMC04.04] Local polymer functionalization in mesoporous multilayer architectures and its influence on mesopore transport M. Stanzel*, A. Andrieu-Brunsen <i>Technical University Darmstadt, Germany</i>	[SYMB104.04] Modification of the fractal network structure of silica in elastomers by integration of octosilicate layers: Experiments and model J.G. Meier* ¹ , R. Córdova ¹ , D. Julve ² , M. Martínez ² , J. Pérez ² ¹ Instituto Tecnológico de Aragón - ITAINNOVA, Spain, ² Industrias Químicas del Ebro S.A., Spain	[ABC04.04] Methods for controlling porosity and electronic band structure of nanoporous carbon materials for electrochemical energy storage and conversion M. Oschatz*, R. Walczak, R. Yan, Q. Qin, F. Lai, M. Antonietti <i>Max Planck Institute of Colloids and Interfaces, Germany</i>
15:30-15:50	15:40-16:00 [SYMA04.04] Amino acid functionalized diamond nanoparticles for drug/gene delivery: In vivo biodistribution studies and remodeling of functionalization design to improve gene transfection R. Rai, S. Alwani, E. Krol, H. Fonge, I. Badea* <i>University of Saskatchewan, Canada</i>		[SYMC04.05] Mesoporous (hybrid) silica nanochannel membrane M.D. Pizzoccaro, C. Huiskes, A. Nijmeijer, L. Winnubst, M.W.J. Luiten-Olieman* <i>University of Twente, The Netherlands</i>	[SYMB104.05] Plasmonic evolution and magnetic ordering in iron/copper and iron/gold magneto-plasmonic nanoparticles K. Kollbek*, A. Szkudlarek, M.M. Marzec, A. Zywczak, M. Sikora, M. Przybylski <i>AGH University of Science and Technology, Poland</i>	[ABC04.05] Cubes on a string: Isorecticular series of coordination polymers with chiral cubane-like units and polycarboxylates as linkers M. Folkjaer* ¹ , C. Deville ¹ , M.S. Hvid ¹ , P. Lamagni ¹ , K. Borup ¹ , V. McKee ² , K.M.O. Jensen ³ , N. Lock ¹ ¹ Aarhus University, Denmark, ² Dublin City University, Ireland, ³ University of Copenhagen, Denmark
15:50-16:10	16:00-16:20 [SYMA04.05] Cytotoxicity and cellular uptake of hollow-shell mesoporous silica nanoparticles (hMSN) in human colon carcinoma cells M. Pérez-Garnes, V. Morales-Pérez, R. Sanz-Martín, C. García-Jiménez, R.A. García-Muñoz*	[SYMB04.03] Molecularly imprinted plasmonic sensor for highly selective SERS detection V. Montes García* ^{1,2} , A. Castro Grijalba ² , J. Pérez Juste ² , I. Pastoriza Santos ² ¹ CNRS, France, ² Universidad de Vigo, Spain	15:50-16:20 Featured Talk: [FTC06] NMR Crystallography of complex materials L. Emsley, <i>Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland</i>	[SYMB104.06] Synthesis and antibacterial properties of a new generation of hybrid polyoxometalate / antibiotic / gold nanoparticle nanocomposites S. Tomane, E. López-Maya, S. Boujday, A. Dolbecq, V. Humblot, P. Mialane, A. Vallée*	[ABC04.06] Redox-enhanced electrochemical capacitors based on mesoporous carbon electrodes and aqueous electrolytes G. Calcagno* ¹ , B. Evanko ² , S.J. Yoo ² , G. Stucky ² , A. Palmqvist ¹ ¹ Chalmers University of Technology, Sweden,

	<i>Universidad Rey Juan Carlos, Spain</i>			<i>Université Paris-Saclay, France</i>	² <i>University of California Santa Barbara, USA</i>
16:10-16:30	16:20-16:40 [SYMA04.06] Injectable hydrogel assembled by nucleic acid sequence for tunable delivery of multiple therapeutic molecules L.H. Chen*, T.W. Wang <i>National Tsing Hua University, Taiwan</i>	[SYMB04.04] Self-assembled hybrid nanotubes for x-ray activated photodynamic therapy (X-PDT) on brain cancer I. Villa*, M. Campione, C. Villa, Y. Torrene, A. Vedda, A. Monguzzi <i>Università degli Studi Milano Bicocca, Italy</i>	16:20- 16:50 Featured Talk: [FTC07] Mesoporous silica nanoparticles as drug carriers M. Vallet-Regí ^{1,2} , ¹ <i>Universidad Complutense de Madrid, Spain, ²Networking Research Center on Bioengineering, Biomaterials and Nanomedicine, Spain</i>	[SYMB104.07] Processing nanostructured hybrid sol-gel coatings through top-down/bottom-up combinations, and recent applications in wetting and photonics D. Grosso* ¹ , T. Bottein ¹ , M. Abbarchi ¹ , M. Faustini ² , O. Dalstein ^{1,2} ¹ <i>IM2NP, France, ²LCMCP, France</i>	[ABC04.07] Cell adherence and drug delivery from particle based mesoporous silica films E.M. Björk* ^{1,2} , B. Baumann ¹ , R. Wittig ¹ , F. Hausladen ¹ , M. Lindén ¹ ¹ <i>Ulm University, Germany, ²Linköping University, Sweden</i>
16:30-16:50		[SYMB04.05] Synthesis and characterization of Gd³⁺, Tb³⁺ and Ho³⁺- doped iron oxide nanoparticles for possible endoradiotherapy and hyperthermia M. Osial, A. Rekorajska, P. Rybicka, M. Pekala, P. Krysinski* <i>University of Warsaw, Poland</i>		[SYMB104.08] Localized enzyme-assisted self-assembly from nanoparticles leading to hybrid covalent/ supramolecular hydrogels M. Criado* ^{1,2} , P. Schaaf ^{1,2} , L. Jierry ¹ , F. Boulmedais ¹ ¹ <i>Université de Strasbourg, France, ²Institut National de la Santé et de la Recherche Médicale, France</i>	[ABC04.08] Computational identification of the best mof adsorbents for co2 separations C. Altintas, G. Avci, H. Daglar, A. Azar, S. Velioglu, I. Erucar, S. Keskin* <i>Koc University, Turkey</i>
16:50-17:15	Coffee Break Room: Hall Auditorium/Tramuntana 1&2				

Rooms:	Garbi	Auditorium	Tramuntana 3	Llevant	Mestral
17:15-18:15	Symposium A: Session 4 (cont.)	Symposium B: Session 4 (cont.)	Symposium C: Session 4 (cont.)	Symposium B1: Session 4 (cont.)	Symposium ABC: Session 4 (cont.)
17:15-17:35	17:15-17:45 Featured Talk: [FTA06] Self-assembled supramolecular nanosystems for smart diagnosis and targeted therapy of intractable diseases K. Kataoka ¹ , ¹ Kawasaki Institute of Industrial Promotion, Japan, ² The University of Tokyo, Japan	[SYMB04.06] Molecular characterization of hybrid organic-inorganic poly(POSS-imide) networks for gas separations under harsh conditions S. Neyertz ^{*1} , D. Brown ¹ , M.J.T. Raaijmakers ² , N.E. Benes ² ¹ University Savoie Mont Blanc, France, ² University of Twente, The Netherlands	[SYMC04.06] Synthesis and surface modification of metal organic frameworks nanoparticles for the processing of mixed matrix membranes N. Steunou ^{*1,2} , M. Benzaqui ^{1,2} , C. Sicard ¹ , C. Serre ² ¹ Institut Lavoisier Versailles, France, ² Institut Des Matériaux Poreux de Paris, France	[SYMB104.09] Supramolecular anchoring of octahedral molybdenum clusters onto graphene for the photocatalytic production of H₂ from water M. Feliz ^{*1} , P. Atienzar ¹ , M. Amela-Cortés ² , N. Dumait ² , P. Lemoine ² , Y. Molard ² , S. Cordier ² ¹ Universitat Politècnica de València – Consejo Superior de Investigaciones Científicas, Spain, ² Université de Rennes, France	[ABC04.09] Carbon aerogels for cathodes of lithium-sulfur batteries M. Schwan [*] , B. Milow, F. Warth, N. Wagner et al <i>German Aerospace Center, Germany</i>
17:35-17:55	17:14-18:15 Featured Talk: [FTA07] Multi-responsive polymeric microstructures with encoded pre-determined and self-regulated deformability J. Aizenberg <i>Harvard University, USA</i>	[SYMB04.07] Rectifying heat flows with polyoxometalate anisotropic structures F. Sousa [*] , C. Mendonça, J. Silveiras, G. Guedes, E. Coimbra, N. Silva <i>University of Aveiro, Portugal</i>	[SYMC04.07] Preparation, structural characterization, and permeation properties of CaF₂/cellulose acetate asymmetric membranes A. Molina ¹ , G. Sánchez ^{*1} , M. Faria ² , M.N. de Pinho ¹ ¹ Universidad Autónoma de San Luis Potosí, Mexico, ² Instituto Superior Técnico, Universidade de Lisboa, Portugal	[SYMB104.10] Unprecedented stoichiometry and broad-band photoluminescent emission in [(CH₃)₂NH₂]₇Pb₄X₁₅ 2D-perovskite related hybrids A. García-Fernández ¹ , J.M. Bermúdez-García ¹ , J. Salgado-Beceiro ¹ , A. Cuquejo-Cid ¹ , A.L. Llama-Saiz ² , S. Castro-García ^{*1} , M. Sánchez-Andújar ¹ ¹ University of A Coruña, Spain, ² University of Santiago de Compostela, Spain	[ABC04.10] Organogel and microporous polymers from a one-pot synthesis of iron (ii) clathrochelate building blocks B. Alameddine ^{*1} , N. Baig ¹ , S. Shetty ¹ , F. Al-Sagheer ² , S. Al-Mousawi ² ¹ Gulf University for Science and Technology, Kuwait, ² Kuwait University, Kuwait
17:55-18:15		[SYMB04.08] Graphitic carbon nitride layers as light-harvesting	[SYMC04.08] Artificial light-driven pump for photoelectric energy	[SYMB104.11] New physical hybrid hydrogels with colloid-	[ABC04.11] Effects of nanoscale ligand density on cartilage development and

		semiconductors for photoelectrochemical cells M. Shalom <i>Ben Gurion University of the Negev, Israel</i>	conversion K. Xiao* ¹ , L. Jiang ² , M. Antonietti ¹ ¹ Max Planck Institute of Colloids and Interfaces, Germany, ² Chinese Academy of Sciences, China	isasomes as cross-linkers F. Ferdeghini* ^{1,2} , Z. Guennouni ^{1,2} , C. Le Cœur ^{2,3} , F. Muller ^{1,2} ¹ ECE Paris, France, ² Laboratoire Léon Brillouin (CEA-CNRS), France, ³ ICMPE, France	intercellular communication I. Casanellas* ^{1,2} , A. Lagunas ^{3,1} , Y. Vida ^{4,5} , E. Pérez-Inestrosa ^{4,5} , C. Rodríguez-Pereira ⁶ , J. Magalhaes ^{3,6} , J. Samitier ^{1,2} ¹ Barcelona Institute of Science and Technology (BIST), Spain, ² University of Barcelona (UB), Spain, ³ Networking Biomedical Research Center (CIBER), Spain, ⁴ Universidad de Málaga (UMA), Spain, ⁵ Andalusian Centre for Nanomedicine and Biotechnology (BIONAND), Spain, ⁶ Universidade da Coruña (UDC), Spain
Room:	Auditorium				
18:30-19:15	[TT02] Noble carbons and their Heterojunctions: From heterogeneous organocatalysis to hybrids with single metal atoms M. Antonietti, <i>Max Planck Institute of Colloids and Interfaces, Germany</i>				
19:15-20:45	Drinks Reception and Poster Session 2 Room: Tramuntana 1&2				

Wednesday, 13 March 2019

Room:	Auditorium				
08:00-08:45	Plenary Lecture 2: [PL02] MXenes and their hybrids open new horizons in materials research Y. Gogotsi, <i>Drexel University, USA</i>				
08:45-09:30	Plenary Lecture 3: [PL03] Compositional and interface engineering of organic-inorganic hybrid perovskites to improve photovoltaic performance and stability M.K. Nazeeruddin, <i>École Polytechnique Fédérale de Lausanne (EPFL), Switzerland</i>				
Rooms:	Garbi	Auditorium	Tramuntana 3	Llevant	Mestral
09:35-10:35	Symposium A: Session 5	Symposium B: Session 5	Symposium C: Session 5	Symposium B1: Session 5	Symposium ABC: Session 5
09:35-09:55	[SYMA05.01] pH-responsive MIL-100(Fe) and MIL-101(Fe) nanoMOFs for safety delivery of camptothecin A. Cabrera-García ¹ , E. Checa-Chavarria ² , E. Rivero-Buceta ¹ , V. Moreno ³ , E. Fernández ² , P. Botella* ¹ ¹ Universitat Politècnica de València-CSIC, Spain, ² Universidad Miguel Hernández, Spain, ³ Research Centre "Principe Felipe", Spain	09:35-10:05 Featured Talk: [FTB07] From functional silicates to organic-inorganic hybrids: Climbing the ladder? J. Rocha, <i>University of Aveiro, Portugal</i>	[SYMC05.01] Order, intermolecular interactions and properties of zeolites: The organic structure directing agent point of view T. Mineva, E. Dib, P. Gaveau, E. Véron, V. Sarou-Kanian, F. Fayon, B. Alonso* <i>CNRS, France</i>	[SYMB105.01] Au@SCO core@shell nanoparticles with unprecedented abrupt conductive switching R. Sanchis-Gual*, R. Torres-Cavanillas, M. Coronado-Puchau, J. Dugay, M. Giménez-Marqués, E. Coronado <i>University of Valencia / ICMol, Spain</i>	[ABC05.01] A bio-inspired approach to bio-functional hybrid materials: ceramic templated melanin-like nanostructures G. Vitiello ^{1,2} , A. Costantini ¹ , B. Silvestri* ¹ , G. D'Errico ¹ , A. Pezzella ¹ , G. Luciani ¹ , M. D'Ischia ¹ ¹ University of Naples Federico II, Italy, ² Consorzio Interuniversitario per lo Sviluppo di Sistemi a Grande Interfase, Italy
09:55-10:15	[SYMA05.02] The vanishing MSN drug carrier K. Möller*, T. Bein <i>University of Munich (LMU), Germany</i>	10:05-10:35 Featured Talk: [FTB08] Advanced electron microscopy techniques for the study of the properties and dynamical behavior of nanomaterials Ovidiu Ersen <i>University of Strasbourg, France</i>	[SYMC05.02] TEMPO functionalized mesoporous silica particles as a heterogeneous catalyst J.S. Schulze*, J. Migenda, B.M. Smarsly <i>Justus-Liebig University Giessen, Germany</i>	[SYMB105.02] Nature-inspired design: Bio-based photoacoustic nanoprobe B. Silvestri* ¹ , P. Armanetti ² , G. Vitiello ¹ , A. Pezzella ¹ , A. Lamberti ¹ , L. Menichetti ² , G. Luciani ¹ , M. d'Ischia ¹ ¹ University of Naples Federico II, Italy, ² CNR Institute of Clinical Physiology, Italy	[ABC05.02] Fully programmable and stimuli-responsive release by designing functional polymers S. Soh <i>National University of Singapore, Singapore</i>
10:15-10:35	[SYMA05.03] Dual disassembly and biological evaluation of		[SYMC05.03] Combination of two different light absorbing	[SYMB105.03] Colloidal nanoparticles of diverse iron oxide's phases	[ABC05.03]

	multifunctional copolymer-based nanoassemblies for cancer therapy J.K. Oh <i>Concordia University, Canada</i>		materials - creating a new potent visible light absorbing photocatalyst J. Timm ¹ , A. Blöber* ² , R. Marschall ² ¹ DECHEMA <i>Forschungsinstitut, Germany, ²University of Bayreuth, Germany</i>	modified by a cation-exchange approach: Unexpected findings and their effect on the magnetic behaviour A. Falqui ¹ , A. Casu* ¹ , D. Deiana ² , S. Lentijo-Mozo ¹ ¹ King Abdullah University of Science and Technology (KAUST), Saudi Arabia, ² Ecole Polytechnique Federale de Lausanne, Switzerland	Hybrid Block-copolymer Nanostructured Surfaces for Anti-reflective Applications S.H. Mir*, P. Mokarian-Tabari <i>Trinity College, Ireland</i>
10:35-11:00	Coffee Break Room: Hall Auditorium/Tramuntana 1&2				
Rooms:	Garbi	Auditorium	Tramuntana 3	Llevant	Mestral
11:00-13:20	Symposium A: Session 5 (cont.)	Symposium B: Session 5 (cont.)	Symposium C: Session 5 (cont.)	Symposium B1: Session 5 (cont.)	Symposium ABC: Session 5 (cont.)
11:00-11:20	[SYMA05.04] On-Chip Combinatorial Synthesis, Lipoplex Formation and Cellular Screening M. Benz, M. Molla, A. Boeser, A. Rosenfeld, P. Levkin* <i>Karlsruhe Institute of Technology, Germany</i>	[SYMB05.01] Polymer-functionalized mesoporous silica: Benefits from polyion complex micelle templating A. Pimphachanh, P. Lacroix-Desmazes, M. In, N. Marcotte, C. Gérardin* <i>University of Montpellier, France</i>	11:00-11:30 Featured Talk: [FTC08] Toward forth generation porous coordination polymers/metal-organic frameworks S. Kitagawa, <i>Kyoto University, Japan</i>	[SYMB105.04] Ethanol dehydration over hydrophobic aluminum and niobium silicates: Influence of homogeneity of metal mixing on catalytic activity and stability of Si-C bonds A. Styskalik* ^{1,2} , G. Boogaerts ¹ , C. Poleunius ¹ , D. Debecker ¹ ¹ Université catholique de Louvain, Belgium, ² Masaryk University, Czech Republic	[ABC05.04] Polysaccharide-oxide nanocomposites through colloidal self-assembly and soft chemistry routes E. Belamie ¹ , K.L. Kostov ² , B. Alonso* ¹ ¹ ICGM (CNRS, ENSCM, UM, EPHE), France, ² Academy of Sciences, Bulgaria
11:20-11:40	[SYMA05.05] Nanocomposite nanofibers scaffolds and nanoparticles/polymer conjugates nanosystems for antibacterial and drug delivery applications - from lab to the market W. Mamdouh*, J. Kegere, A. Shetta, N. ElBaz, L. Ziko,	[SYMB05.02] New plasmonic hybrid silver molybdate nanoheterostructures for visible-light driven photocatalysis and SERS detection R. Dessapt* ¹ , K. Hakouk ¹ , L. Lajaunie ^{1,2} , H. El Bekkachi ¹ , H. Serier-Brault ¹ ,	11:30-12:00 Featured Talk: [FTC09] Molecular understanding and controlled functionalization of surfaces towards single-site catalysts and beyond C. Coperet, <i>ETH Zürich, Switzerland</i>	[SYMB105.05] Chemical mapping of bio- and hybrid materials with 10 nm spatial resolution using scattering-type scanning near-field optical microscopy P. Schäfer*, A. Cernescu, A. Huber <i>neaspec GmbH, Germany</i>	[ABC05.05] Catalytic and electron conducting carbon nanotube reinforced lysozyme crystals R. Contreras-Montoya ¹ , G. Escolano ² , M.T. Lopez-Lopez ¹ , J.A. Gavira ² , L. Alvarez de Cienfuegos* ¹ ¹ University of Granada,

	R. Siam <i>The American University in Cairo (AUC), Egypt</i>	B. Humbert ¹ , R. Arenal ^{2,3} <i>¹Université de Nantes, France, ²Instituto de Nanociencia de Aragón, Universidad de Zaragoza, Spain, ³ARAID Foundation, Spain</i>			<i>Spain, ²Instituto Andaluz Ciencias de la Tierra, Spain</i>
11:40-12:00	[SYMA05.06] Controlled drug release from mesoporous silica nanoparticles by boronic acid-based molecular gates Y. Salinas*, I. Teasdale, O. Brueggemann <i>Johannes Kepler University Linz, Austria</i>	[SYMB05.03] New plasmonic hybrid silver molybdate nanoheterostructures for visible-light driven photocatalysis and SERS detection R. Dessapt* ¹ , K. Hakouk ¹ , L. Lajaunie ^{1,2} , H. El Bekkachi ¹ , H. Serier-Brault ¹ , B. Humbert ¹ , R. Arenal ^{2,3} <i>¹Université de Nantes, France, ²Instituto de Nanociencia de Aragón, Universidad de Zaragoza, Spain, ³ARAID Foundation, Spain</i>		[SYMB105.06] In situ preparation of epoxy-SiO₂ nanocomposites for high voltage insulation M.M. Adnan* ¹ , E.G. Tveten ² , R. Miranti ¹ , S. Hvidsten ² , J. Glaum ¹ , M-H. Ese ² , M-A. Einarsrud ¹ <i>¹Norwegian University of Science and Technology NTNU, Norway, ²SINTEF Energy Research, Norway</i>	[ABC05.06] Dual stimuli-responsive perallyloxycucurbit[6]uril-based nanoparticles for selective drug delivery in cancer cells R. Wang <i>University of Macau, Macao</i>
12:00-12:20	12:00-12:30 Featured Talk: [FTA08] Samuel Stupp <i>Northwestern University, USA</i>	[SYMB05.04] Functional hybrid Au-protein supraparticles for nanodelivery F. Baldelli Bombelli* ¹ , C. Pigliacelli ^{1,2} , D. Maiolo ¹ , P. Metrangolo ^{1,2} <i>¹Politecnico di Milano, Italy, ²Aalto University, Finland</i>	[SYMC05.04] Ru-loaded mesoporous C12A7 mesocrystalline microcubes for catalytic NH₃ synthesis under ambient pressure G. Hasegawa* ¹ , S. Moriya ¹ , M. Kitano ² , K. Hayashi ¹ <i>¹Kyushu University, Japan, ²Tokyo Institute of Technology, Japan</i>	[SYMB105.07] Simulation and structural characterization of ordered mesoporous carbon composite materials C. Weinberger* ¹ , M. Hartmann ¹ , S. Ren ¹ , T. Sandberg ² , J.H. Smått ² , M. Tiemann ¹ <i>¹Paderborn University, Germany, ²Åbo Akademi University, Finland</i>	[ABC05.07] Nanohybrid hydrogel containing glycosaminoglycan-based polyelectrolyte nanoparticles for the treatment of brain stroke T.W. Wang*, W.H. Jian <i>National Tsing Hua University, Taiwan</i>

12:20-12:40	12:30-12:50 [SYMA05.07] Brain targeting lactoferrin conjugated redox sensitive PEG-S-S-PLA-PCL-OH polymersomes encapsulated with bacosides enhance the reversal of chemically induced amnesia K. Goyal*, V. Koul, <i>Indian Institute of Technology Delhi, India</i>	[SYMB05.05] Bottom-up synthetic approaches to Mie resonant silicon particles for optical metamaterials G.L. Drisko* ¹ , S. Semlali ¹ , M.L. DeMarco ¹ , B. Cormary ¹ , C. Aymonier ¹ , P. Barois ² <i>¹Institut de Chimie de la Matière Condensée de Bordeaux (ICMCB), France, ²Centre de Recherche Paul Pascal (CRPP), France</i>	[SYMC05.05] Lyotropic liquid crystalline mesophases for the synthesis of transparent mesoporous thin film electrodes O. Dag <i>Bilkent University, Turkey</i>	[SYMB105.08] Functional hybrid materials based on electro/photo-switchable cubes: Smart inorganic polymers for energy storage and molecular electronics A. Benchohra ¹ , J. Landousli ¹ , J.R. Jimenez ¹ , R. Plamont ¹ , Y. Li ¹ , L. Fillaud ¹ , E. Maisonhaute ¹ , D. Kreher ¹ , J. Dreiser ² , R. Lescouezec* ¹ et al <i>¹Sorbonne Université, France, ²SLS, Paul Scherrer Institute, Switzerland</i>	[ABC05.08] Bioactive Liquid Crystal Droplets N.K. PM ¹ , S. Mann ² , K.P. Sharma* ¹ <i>¹Indian Institute of Technology Bombay, India, ²University of Bristol, UK</i>
12:40-13:00	12:50-13:10 [SYMA05.08] Ultrasound-sensitive piezoelectric nanotransducers for the treatment of brain tumors A. Marino* ¹ , C. Tapeinos ¹ , M. Battaglini ^{1,2} , S. Migliorin ³ , F. Tomatis ³ , G. Ciofani ^{1,3} <i>¹Istituto Italiano di Tecnologia, Italy, ²Scuola Superiore Sant'Anna, Italy, ³Politecnico di Torino, Italy</i>	12:40-13:10 Featured Talk: [FTB09] When molecular science meets 2D materials: Orchestrating multiple functions P. Samorì, <i>Université de Strasbourg & CNRS, France</i>	[SYMC05.06] Prussian blue nanomembranes on porous supports: Growth mechanism and gas separation R. Selyanchyn*, R. Okeda, K. Kanakogi, S. Fujikawa, N. Kimizuka <i>Kyushu University, Japan</i>	[SYMB105.09] Cobalt-iron mixed metal oxide nanoparticles: Green synthesis using cameroonian palmist oil and structural characterization Y.C. Ngnintedem* ^{1,3} , F.R. Lontio ² , C. Poleunis ³ , A. Delcorte ³ , J.L. Ngolui ¹ <i>¹University of Yaounde I, Cameroon, ²German Aerospace Center, Germany, ³Catholic University of Louvain, Belgium</i>	[ABC05.09] Biocompatible electrospun nanofibers containing cloxacillin: Release profile and activity towards Gram positive bacteria R. Schneider ^{1,2} , L.A. Mercante ^{1,2} , R.S. Andre ¹ , H.M. Brandão ³ , L.H.C. Mattoso ^{1,2} , D.S. Correa* ^{1,2} <i>¹Embrapa Instrumentação, Brazil, ²UFSCar - PPGQ, Brazil, ³Embrapa Gado de Leite, Brazil</i>
13:00-13:20				[SYMB105.10] Boron nitride nanomaterials modifications to improve nanocomposites preparation D. Santiago*, C-C. Hung, J. Hurst, M. Lizcano, M. Kelly <i>NASA Glenn Research Center, USA</i>	[ABC05.10] Polymer coated mesoporous silica nanoparticles for controlled delivery of a chemotherapeutic drug to pancreatic cancer cells R.S. Prabhuraj*, U. Majhi, R. Srivastava,

R. Bandyopadhyaya
Indian Institute of
Technology Bombay,
Mumbai, India

FREE AFTERNOON AND EVENING

Thursday, 14 March 2019

Room:	Auditorium				
08:30-09:15	Plenary Lecture 4: [PL04] Functional nanoscale and hierarchical materials by "living" crystallization-driven self-assembly I. Manners ^{1,2} , ¹ University of Bristol, UK, ² University of Victoria, Canada				
Rooms:	Garbi	Auditorium	Tramuntana 3	Llevant	Mestral
09:20-10:20	Symposium A: Session 6	Symposium B: Session 6	Symposium C: Session 6	Symposium B1: Session 6	Symposium ABC: Session 6
09:20-09:40	[SYMA06.01] Iron oxide/silica core/shell nanocomposites decorated with quantum dots as promising agent for image guided therapy F. Perton ^{*1} , M. Tasso ² , F. Meyer ¹ , S. Bégin-Colin ¹ , D. Mertz ¹ ¹ Institut de Physique et Chimie des Matériaux de Strasbourg (IPCMS), France, ² INIFTA, Argentina	[SYMB06.01] From battery waste to hybrid nanocomposites-based electrochemical sensor for multiplex detection of DNA bases: A biomedical prospect for studying DNA damage S.M. Khor [*] , K.L. Ng University of Malaya, Malaysia	09:20-09:50 Featured Talk: [FTC10] Periodic materials composed of silicate double four-ring nodes and dimethylsilicone linkers: POSISILS J. Martens University of Leuven, Belgium	[SYMB106.01] Chromonic liquid crystals as precursors for the bottom-up fabrication of organic and inorganic nanofibers C. Rodriguez-Abreu Institute for Advanced Chemistry of Catalonia, Spain	[ABC06.01] Robust structurally colored coatings prepared via cathodic electrophoretic deposition of SiO₂ particles K. Katagiri ^{*1} , K. Uemura ¹ , R. Uesugi ¹ , K. Inumaru ¹ , T. Uchikoshi ² , Y. Takeoka ³ ¹ Hiroshima University, Japan, ² National Institute for Materials Science, Japan, ³ Nagoya University, Japan

09:40-10:00	<p>[SYMA06.02] Thrombosis targeted by polysaccharide submicron particles L.M. Forero Ramirez*^{1,3}, F. Moraes^{1,2}, A. Zenych^{1,3}, D. Letourneur^{1,3}, F. Chaubet^{1,3}, C. Chauvierre^{1,3} ¹INSERM, France, ²Université Paris Diderot, France, ³Université Paris 13, France</p>	<p>[SYMB06.02] Advances in the controlled self-assembly of π-conjugated block copolymers for optoelectronic applications L. MacFarlane*, M. Vespa, I. Manners University of Victoria, Canada</p>	<p>09:50-10:20 Featured Talk: [FTC11] Covalent organic frameworks (COF) and Covalent triazine frameworks (CTF) : Metal free and highly stable heterogeneous catalysts and adsorbents P. Van Der Voort, Ghent University, Belgium</p>	<p>[SYMB106.02] Curcuminoid-based materials from supramolecular assemblies to active surfaces A. González-Campo*¹, E. Iñíguez¹, S. Giraldo^{1,2}, R. Díaz-Torres¹, R. Gimeno-Múñoz¹, N. Joosten³, A. Velders³, N. Aliaga-Alcalde¹ ¹Institut de Ciència de Materials de Barcelona (ICMAB-CSIC), Spain, ²Universitat de Barcelona, Spain, ³Wageningen University, The Netherlands</p>	<p>[ABC06.02] Modification of mesoporous magnesium carbonate and its applications in drug delivery and waste water treatment M. Vall*, M. Strømme, O. Cheung Uppsala University, Sweden</p>
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10:00-10:20	[SYMA06.03] Protein adsorption on mesoporous silica nanoparticles: Influence of pore diameter on competitive adsorption and applications in prostate cancer diagnosis C. Vidaurre-Agut ¹ , E.M. Rivero-Buceta ¹ , E. Romání Cubells ¹ , A.M. Clemments ² , C.D. Vera-Donoso ³ , C.C. Landry* ² , P. Botella ¹ ¹ Instituto de Tecnología Química, Spain, ² University of Vermont, USA, ³ Hospital Universitario y Politécnico La Fe, Spain	[SYMB06.03] Magneto-optical properties of the magnetite-graphene oxide composites in organic solvents A. Dimiev*, A. Solodov Kazan Federal University, Russia		[SYMB106.03] Chemical functionalization of 2D materials with molecular-based systems: Towards tuneable composites A. Forment-Aliaga* ¹ , M. Morant-Giner ¹ , R. Torres-Cavanilles ¹ , J. Romero ¹ , A. Alberola ¹ , A.L. Gushchin ² , N.Y. Shmelev ² , M. Galbiati ¹ , G. Escorcia ¹ , S. Tatay ¹ , J. Dugay ¹ , M. Giménez-Marqués ¹ , E. Coronado ¹ ¹ Universitat de València, Spain, ² Russian Academy of Sciences, Russia	[ABC06.03] Synthesis and properties of porous ceria-titania photocatalysts prepared by a facile solvothermal approach S. Sood* ¹ , K. Polychronopoulou ¹ , M. Abi Jaoude ¹ , A. Safieh ² , A. Alnuaimi ² ¹ Khalifa University of Science and Technology, United Arab Emirates, ² Dubai Electricity and Water Authority (DEWA), United Arab Emirates
10:20-11:20	Coffee Break and Poster Session 3 Room: Hall Auditorium/Tramuntana 1&2				
Rooms:	Garbi	Auditorium	Tramuntana 3	Llevant	Mestral
11:20-12:40	Symposium A: Session 6 (cont.)	Symposium B: Session 6 (cont.)	Symposium C: Session 6 (cont.)	Symposium B1: Session 6 (cont.)	Symposium ABC: Session 6 (cont.)
11:20-11:40	11:20-11:50 Featured Talk: [FTA09] Organic nano-crystals in organisms: Biogenic scatterers, mirrors, multilayer reflectors and photonic crystals L. Addadi, Weizmann Institute, Israel	[SYMB06.04] Enhanced electrochromic properties of organic-inorganic thin films based on layered double hydroxides V. Prevot* ¹ , C. Mousty ¹ , P. Koilraj ¹ , A. Rougier ² , M. Takemoto ³ , M. Takahashi ³ , Y. Tokudome ³ , I. Mjejri ² ¹ Université Clermont Auvergne, France, ² Université de Bordeaux, France, ³ Osaka Prefecture University, Japan	[SYMC06.01] Nitrene-based crosslinking agent for overcoming solution-processed multilayer deposition limit in OFETs T.K. An Korea National University of Transportation, Republic of Korea	[SYMB106.04] Stabilization of Gelatin-Dextran/LDH vesicles by a w/w Pickering emulsion process. A strategy toward the encapsulation of artificial metabolism C. Forano*, A. Borgini, V. Prevot, C. Guerard-Helaine, V. Helaine, C. Vachias, M. Lemaire, T. Gefflaud ¹ Université Clermont Auvergne, France	[ABC06.04] Temperature-switch nanomagnetic logic gates for cellular hyperthermia R.A. Pereira* ¹ , R. Oliveira-Silva ² , F.M. Silva ¹ , V.M. Gaspar ¹ , A. Ibarra ³ , A. Millán ⁴ , F.L. Sousa ¹ , J.F. Mano ¹ , N.J.O. Silva ¹ ¹ CICECO - Aveiro Institute of Materials, Portugal, ² IBB - Institute of Bioengineering and Biosciences, Portugal, ³ LMA - Instituto de Nanociencia de Aragón, Spain, ⁴ Instituto de Ciencia de Materials de Aragón, Spain

11:40-12:00	11:50-12:10 [SYMA06.04] Single-chain polymer nanoparticles as functionalization platform towards protein mimicry A.P.P. Kröger ¹ , J.W. Paats ¹ , N.M. Hamelmann ¹ , J.M.J. Paulusse ^{*1,2} ¹ University of Twente, The Netherlands, ² University Medical Center Groningen, The Netherlands	[SYMB06.05] Ultra-effective integrated technologies for water disinfection with a novel nanostructured composite Z.T. Hu ^{*1} , T.T. Lim ² , E.H. Yang ² , J. Wang ¹ , J. Chen ¹ ¹ Zhejiang University of Technology, China, ² Nanyang Technological University, Singapore	[SYMC06.02] Functionalized covalent triazine frameworks for carbon capture, storage, and heterogeneous catalysis H.S. Jena [*] , P. Van Der Voort Ghent University, Belgium	[SYMB106.05] Photosensitive metal-oxo clusters for opto-electronic applications C-C. Yeh ^{1,2} , S-Y. Yu ^{1,2} , P-Y. Chang ^{1,2} , B. Leuschel ¹ , D. Berling ¹ , A. Spangenberg ¹ , H-W. Zan ² , O. Soppera ^{*1} ¹ CNRS, France, ² National Chiao Tung University, Taiwan	[ABC06.05] Fabrication of low-loss metal gyroids for optical metamaterials S.N. Abdollahi [*] , I. Gunkel, B.D. Wilts, U. Steiner University of Fribourg, Switzerland
12:00-12:20	12:10-12:30 [SYMA06.05] Conjugation of hydroxamic acid to methacrylated type I collagen for matrix metalloproteinase modulation in chronic wounds G. Tronci [*] , H. Liang, S.J. Russell, D.J. Wood University of Leeds, UK	12:00-12:30 Featured Talk: [FTB10] Interface engineering in molecular spintronics E. Coronado, ICMol-Universitat Valencia, Spain	[SYMC06.03] Tailored microstructured organic-inorganic solids as hyperpolarizing matrices for optimal magnetic resonance imaging M. Cavailles ¹ , L. Veyre ¹ , G. Bodenhausen ² , J-N. Dumez ¹ , S. Jannin ¹ , C. Copéret ³ , C. Thieuleux ^{*1} ¹ CNRS, France, ² ENS Paris-LBM, France, ³ ETH Zurich, Switzerland	[SYMB106.06] Carbon Nanotube/Fluorophore Hybrids as Nano-heaters to Kill Bacteria B. Oruc, H. Unal [*] Sabanci University Nanotechnology Research and Application Center, Turkey	[ABC06.06] Gold nanoclusters as two-photon bioimaging agents J. Olesiak-Banska ^{*1} , M. Waszkielewicz ¹ , J. Sobska ^{1,2} , W. Krezel ² , K. Matczyszyn ¹ , M. Samoc ¹ ¹ Wroclaw University of Science and Technology, Poland, ² Institut de Genetique et de Biologie Moleculaire et Cellulaire, France
12:20-12:40			[SYMC06.04] Functional biobased polyphosphazene hybrid colloids A. Pich ^{*1,2} , A. Deniz ¹ ¹ DWI - Leibniz-Institute for Interactive Materials, Germany, ² RWTH Aachen University, Germany	[SYMB106.07] Highly transparent and flexible organic-inorganic hybrid aerogels: Synthesis and mechanical properties R. Ueoka [*] , K. Kazuyoshi, K. Nakanishi Kyoto University, Japan	[ABC06.07]
12:40-14:00	Lunch Noray Restaurant				
13:00-14:00	Materials Today Publishing Seminar				
Rooms:	Garbi	Auditorium	Tramuntana 3	Llevant	Mestral

14:00-16:00	Symposium A: Session 7	Symposium B: Session 7	Symposium C: Session 7	Symposium B1: Session 7	Sposium ABC: Session 7
14:00-14:20	14:00-14:30 Featured Talk: [FTA10] Hybrid materials with plasmonic chirality L.M. Liz-Marzán, CIC biomaGUNE, Spain	[SYMB07.01] Effects of silica precursor preparations and adding techniques on mixing efficiency and dispersibility of silica particles in silica/natural rubber composites T. Sangthong, A. Chumma, J. Tuffrey* <i>Rajamangala University of Technology Srivijaya, Thailand</i>	[SYMC07.01] Solvent-free synthesis of magnetic two-dimensional coordination polymers J. Lopez-Cabrelles*, S. Manas-Valero, E. Coronado, G. Minguez Espallargas <i>Universitat de Valencia, Spain</i>	[SYMB107.01] Titanate nanotube-based nanohybrids: Radiosensitizers for the treatment of prostate cancer J. Boudon* ¹ , A. Loiseau ¹ , C. Mirjolet ² , S. Roux ¹ , N. Millot ¹ <i>¹CNRS-Université Bourgogne Franche-Comté, France, ²Département de Radiothérapie, Centre Georges-François Leclerc, France</i>	[ABC07.01] Composite biomaterials as long-lasting scaffolds for 3D bioprinting of highly aligned muscle tissue A. G. Lizarribar* ¹ , X. F. Garibay ¹ , F. V. Mallorquí ¹ , A. G. Castaño ¹ , J. Samitier ^{1,2} , J. R. Azcon ¹ <i>¹IBEC, Spain, ²Universitat de Barcelona, Spain</i>
14:20-14:40	14:30-14:50 [SYMA07.01] Performance of cellulose aerogels as reinforcement in thermosets M. Schestakow*, B. Milow, L. Ratke <i>German Aerospace Center (DLR), Germany</i>	[SYMB07.02] Polymer-based fibrous hybrid membranes by in situ synthesis of inorganic nanoparticles D. Morselli* ^{1,2} , D. Fragouli ¹ , E.L. Papadopoulou ¹ , P. Fabbri ² , A. Athanassiou ¹ <i>¹Istituto Italiano di Tecnologia, Italy, ²Università di Bologna, Italy</i>	[SYMC07.02] Plasmonic nanoparticles@MOF nanocomposites as SERS tags for biodetection S. De Marchi Lourenço*, G. Bodelón, L. Vázquez-Iglesias, J. Pérez-Juste, I. Pastoriza-Santos <i>Universidad de Vigo, Spain</i>	[SYMB107.02] Experimental phonon dispersion and lifetimes of tetragonal CH₃NH₃PbI₃ perovskite crystals H. Ma ¹ , Y.W. Ma ² , H. Wang ^{3,4} , C. Slebodnick ² , J. Urban ⁴ , Z.T. Tian* ¹ <i>¹Cornell University, USA, ²Virginia Tech, USA, ³Illinois Institute of Technology, USA, ⁴Lawrence Berkeley National Laboratory, USA</i>	[ABC07.02] Rare Earth Nanoparticles functionalized with folic acid for bioimaging of cancer cells D. Chávez-García* ¹ , K. Juárez-Moreno ² , G. Hirata ² <i>¹Centro de Enseñanza Técnica y Superior, Campus Ensenada, Mexico, ²Centro de Nanociencias y Nanotecnología, Universidad Nacional Autónoma de México, Ensenada, Baja California, Mexico</i>

14:40-15:00	14:50-15:10 [SYMA07.02] Multivalent proteoglycan mimics generated by glycosaminoglycan end-on oxime ligation R. Novoa-Carballal ^{1,2} , M. Gomes ^{1,2} , J. Valcarcel ³ , J.A. Vazquez ³ , A. Carretero ¹ , R.L. Reis ¹ , I. Pashkuleva ^{1,2} ¹ University of Minho, Portugal, ² PT Government Associate Laboratory, Braga/Guimarães, Portugal, ³ Marine Research Institute, Spain	14:40-15:10 Featured Talk: [FTB11] Slow photons for photocatalysis and photovoltaics B-L. Su University of Namur, Belgium	[SYMC07.03] Control in gate adsorption pressures of soft MOF (ELM-12) with varied particle sizes S. Watanabe*, A. Fukuta, S. Hiraide, H. Tanaka, M.T. Miyahara Kyoto University, Japan	[SYMB107.03] Multifunctional magneto-plasmonic nanoparticle based-approaches for cancer treatment: Therapy and biodegradation A. Espinosa ² , F. Mazuel ² , A. Curcio ^{1,2} , M. Bugnet ³ , G. Radtke ¹ , S. Neveu ¹ , G.A. Botton ³ , C. Wilhelm ² , A. Abou-Hassan* ¹ ¹ Sorbonne University, France, ² Paris Diderot University, France, ³ McMaster University, Canada	[ABC07.03] Thermal improvement of macro-encapsulated phase change materials using titanium nanoparticles E. Mohseni*, W.C. Tang, S. Wang University of Newcastle, Australia
15:00-15:20	15:10-15:30 [SYMA07.03] Bacterial spore-cellulose nanofiber composites for large scale responsive materials Y. Ungar*, E. Schenker, I. Johansson, B. Miller, S. Harrelson, H. El Tinay, M. Friedman, O. Cakmak, O. Sahin Columbia University, USA	15:10-15:30 [SYMB07.03] The polyamine derivative decorated with CuO nanoparticles: A robust nanomaterial for visible light mediated sonogashira coupling H. Deol*, V. Bhalla, M. Kumar Guru Nanak Dev University Amritsar, India	[SYMC07.04] Recombination and diffusion dynamics of molecular excitons in fluorescent MOF nanocrystals and porous emitting framework (PEF) nanoparticles R. Crapanzano ¹ , J. Peregó ¹ , J. Pedrini ¹ , A. Comotti ¹ , N. Yanai ² , N. Kimizuka ² , A. Monguzzi* ¹ ¹ Università Milano Bicocca, Italy, ² University of Kyushu, Japan	[SYMB107.04] Calcium alginate/graphene oxide films as cost-effective composites with excellent compression performance, no cytotoxicity for human keratinocytes and able to prevent life-threatening bacterial infections M. Martí, B. Frígols, B. Salesa, A. Serrano-Aroca* Universidad Católica de Valencia San Vicente Mártir, Spain	[ABC07.04] In vitro modeling of the blood-brain barrier: From static systems to 3D biomimetic microdevices M. Battaglini ^{1,2} , C. Tapeinos ¹ , A. Grillone ¹ , A. Marino* ¹ , G. Ciofani ^{1,3} ¹ Istituto Italiano di Tecnologia, Italy, ² Scuola Superiore Sant'Anna, The Biorobotic Institute, Italy, ³ Politecnico di Torino, Italy
15:20-15:40	15:30-15:50 [SYMA07.04] Pro-angiogenic effect of geometry in 3D polysaccharide-based hydrogels T. Simon-Yarza* ¹ , M.N. Labour ^{3,1} , R. Aid-Launais ^{2,1} , D. Letourneur ^{1,3} ¹ INSERM U1148, France,	15:30-15:50 [SYMB07.04] Self-assembly and properties of hierarchical, nanolamellar, hard and tough nanoceramic coatings M. Meindlhumer ¹ , J. Zalesak ¹ , J. Todt ¹ ,	[SYMC07.05] Functionalized covalent organic frameworks (COFs) for photocatalytic hydrogen generation P. Pachfule*, A. Thomas Technische Universität Berlin, Germany	[SYMB107.05] Versatile role of boehmite particles in epoxy-based nanocomposites I. Topolniak* ¹ , M. Ghasem Zadeh Khorasani ^{1,2} , V-D. Hodoroaba ¹ , U. Braun ¹ , D. Silbernagl ¹ , H. Sturm ^{1,2} ¹ Federal Institute for Material Research and	[ABC07.05] Evaluation of photocatalytic properties of amino-iron oxide-functionalized graphene oxide in photo-fenton-like degradation of reactive black 5

	² Université Paris Diderot, France, ³ Université Paris 13, France	R. Pitonak ² , J. Keckes* ¹ ¹ Montanuniversität Leoben, Austria, ² Boehlerit GmbH, Austria		Testing (BAM), Germany, ² Technical University, Germany	M.P. da Silva, L.E.M. Ferreira, Z.B. de Souza, C.M.B. Araújo, T.J.M. Fraga*, M.N. Carvalho, E.M.P.L. Freire, M.G. Ghislandi, M.A. da Motta Sobrinho <i>Federal University of Pernambuco, Brazil</i>
15:40-16:00			[SYMC07.06] Triazine and heptazine based extended organic materials for photocatalysis J. Schmidt*, P. Pachfule, A. Thomas <i>TU Berlin, Germany</i>	[SYMB107.06] Nanocolloidal hydrogel based on cellulose nanocrystals and graphene quantum dots for heavy metal scavenging M. Alizadehgiashi*, N. Khoo, A. Khabibullin, A. Henry, M. Tebbe, T. Suzuki, E. Kumacheva <i>University of Toronto, Canada</i>	[ABC07.06] Development and characterization of thin films of FePO₄, 2H₂O Application to lithium ion batteries H. Ould Bouamer ¹ , G. Kaichouh ¹ , A. El Hourch ¹ , K. Ouazouit ² , H. Faqir ² , K. Bouziane* ³ , M. Faqir ³ , A. Guessous ¹ ¹ University of Mohammed V in RABAT, Morocco, ² REMINEX Research Center, Morocco, ³ Université Internationale de Rabat, Morocco
16:00-17:15	Coffee Break and Poster Sessions 3 Room: Hall Auditorium/Tramuntana 1&2				
Room:	Auditorium				
17:15-18:00	[TT03] Multicellular tumor spheroids (MCTS) as 3D in vitro evaluation tool to understand the behaviour of nanoparticles in a biological setting M. Stenzel, <i>University of New South Wales, Australia</i>				
18:30-22:00	Conference Dinner Finca Mas Solers				

Friday, 15 March 2019

Room:	Auditorium				
08:30-09:15	Plenary Lecture 5: [PL05] Self-assembled and breakable materials for medical applications Luisa de Cola, CNRS, France				
Rooms:	Garbi	Auditorium	Tramuntana 3	Llevant	Mestral
09:20-10:20	Symposium A: Session 8	Symposium B: Session 8	Symposium C: Session 8	Symposium B1: Session 8	Symposium ABC: Session 8
09:20-09:40	[SYMA08.01] Topotactic conversion of biopolymer foams for 3D cell culture F.M. Fernandes*, C. Parisi, C. Eschenbrenner, C. Rieu, L. Trichet Sorbonne Université, France	09:20-09:50 Featured Talk: [FTB12] Synthetic, biomimetic, and nanoparticle-modified cellular constructs C. Jeffrey Brinker University of New Mexico, USA	[SYMC08.01] Catalytic carpets: Pt@MOF@electrospun PCL, a surprisingly active and robust hydrogenation catalyst K. Leus*, C. Krishnaraj, V. Cremers, J. Dendooven, R. Ramachandran, P. Dubruel, P. Van Der Voort Ghent University, Belgium	[SYMB108.01] Nanocolloidal hydrogel based on cellulose nanocrystals and graphene quantum dots for heavy metal scavenging M. Alizadehgiashi*, N. Khuu, A. Khabibullin, A. Henry, M. Tebbe, T. Suzuki, E. Kumacheva University of Toronto, Canada	[ABC08.01] Influence of Morphology in the Magnetic Properties of Layered Double Hydroxides J.A. Carrasco* ¹ , G. Abellán ^{1,2} , E. Coronado ¹ ¹ University of Valencia, Spain, ² Department of Chemistry and Pharmacy and Joint Institute of Advanced Materials and Processes (ZMP), Germany
09:40-10:00	[SYMA08.02] Mechanical properties of biomimetic hydrogels produced by injection of spray-dried collagen M. Lama* ^{1,2} , C. Boissière ^{1,4} , F.M. Fernandes ^{1,4} , A. Marcellan ^{1,3} , N. Nassif ^{1,3} ¹ Sorbonne Université, France, ² ESPCI Paris, France, ³ PSL University, France, ⁴ CNRS, France	09:50-10:10 [SYMB08.01] Bio-based polyamides and polyamide nanocomposites with tuneable properties for multiple applications Y. Nurhamiyah*, B. Chen Queen's University of Belfast, UK	09:40-10:10 Featured Talk: [FTC12] Robust metal organic frameworks for energy related applications C. Serre, PSL University, France	[SYMB108.02] Novel synthesis method for Zr_{1-x}Ce_xO₂ mixed oxide monoliths with adjustable pore structure M. Sieland*, G. Beck, P. Cop, B.M. Smarsly Justus-Liebig University, Germany	[ABC08.02] Sol-gel derived multifunctional hybrid POSS coatings for sensing corrosion J. Yang* ¹ , M. Pilz ¹ , C. Simon ¹ , M. Wilhelm ² , J. Tedim ² , T. Galvão ² ¹ SINTEF Industry, Norway, ² University of Aveiro, Portugal
10:00-10:20	[SYMA08.03] Pancreatic islets construct by 3D-Bioprinting: Combining decellularized extracellular matrix hydrogel with transdifferentiated β-cells L. Clua Ferré*, J. Ramón Azcón			[SYMB108.03] Mechanocatalytic and recyclable sponges from enzyme-polymer surfactant bioconjugates and nanoparticles M. Jain, R. Vaze,	[ABC08.03] Nanoparticles-driven nano-assembly of hybrid block copolymer films C.A.M. Loudy, A. Bousquet, J. Allouche, H. Martinez, L. Billon Institut des Sciences Analytiques et de Physico-

	Fundació Institut de Bioenginyeria de Catalunya, Spain			K.P. Sharma* Indian Institute of Technology Bombay, India	Chimie pour l'Environnement et les Matériaux, France
10:20-10:50	Coffee Break Room: Hall Auditorium/Tramuntana 1&2				
Rooms:	Garbi	Auditorium	Tramuntana 3	Llevant	
10:50-13:10	Symposium A: Session 8 (cont.)	Symposium B: Session 8 (cont.)	Symposium C: Session 8 (cont.)	Symposium B1: Session 8 (cont.)	
10:50-11:10	[SYMA08.04] Nanoparticle-cell mimesis: Exploiting naturally-organised biological recognition motifs C.P. Silveira*, L. Boselli, V. Castagnola, V. Giannone, F. Muraca, K.A. Dawson <i>University College Dublin, Ireland</i>	10:50-11:20 Featured Talk: [FTB13] Advances in nanoparticles and interfaces characterization method F. Stellacci, <i>Ecole Polytechnique Fédérale de Lausanne, Switzerland</i>	[SYMC08.02] Ratiometric mixed Eu-Tb metal-organic framework as a new cryogenic luminescent thermometer H. Serier-Brault* ¹ , I. N'Dala-Louika ¹ , R. Dessapt ¹ , C. Latouche ¹ , D. Ananias ² , L.D. Carlos ² ¹ University of Nantes, France, ² CICECO, Portugal	[SYMB108.04] Transparent and flexible piezoelectric sensor for detecting human movement with a boron nitride nanosheet (BNNS) K.B. Kim*, J.Y. Cho, T.H. Sung <i>Hanyang University, Republic of Korea</i>	
11:10-11:30	[SYMA08.05] Biomimetic systems for water harvesting: structure and surface properties of polymer fibers U. Stachewicz <i>AGH University of Science and Technology, Poland</i>	11:20-11:40 [SYMB08.02] Microarchitecturing of chiral-nematic films - expanding the opto-mechanical property spaces B.L. Tardy*, B.D. Mattos, L.G. Greca, K. Klockars, T. Kämäräinen, O.J. Rojas <i>Aalto University, Finland</i>	[SYMC08.03] Selective capture of volatile organic compounds with metal organic framework nanoparticles E. Dumas* ¹ , K. Dedecker ¹ , C. Boissière ² , F. Nouar ³ , G. Maurin ⁴ , B. Lavédrine ² , N. Steunou ¹ , M. Pinto ⁵ , C. Serre ³ ¹ Université de Versailles Saint-Quentin-en-Yvelines, France, ² Sorbonne Universités, France, ³ Université Paris-Sciences-et-Lettres, France, ⁴ Université de Montpellier, France, ⁵ Universidade de Lisboa, Portugal	[SYMB108.05] Nanozyme activity of soybean carbon-zinc nanodots Y. Xie*, M. Khamijan, H. Fan <i>Nazarbayev University, Kazakhstan</i>	

11:30-11:50	[SYMA08.06] Less Phagocytosis of Biohybrid CD47-Virus C.A. Peng <i>University of Idaho, USA</i>	11:40-12:00 [SYMB08.03] Stress-strain behavior of graphene nanocomposites: A computational neural networks approach Y. Najjar*, K. Qatu, H. Almasaeid, A. Manasrah, X. Li, A. Al-Ostaz, H. Alkhateb, G. Rushing <i>University of Mississippi, USA</i>	11:30-12:00 Featured Talk: [FTC13] Ferdi Schüth <i>MPI- Mulheim, Germany</i>	[SYMB108.06] New strategies for the functionalization of carbon black for tuning the mechanical properties of polymer-nanocomposites A. Nitschke*, L. Brinkmann, P. Vana <i>Georg-August University Goettingen, Germany</i>
11:50-12:10	[SYMA08.07] Optimized hybrid composite biomaterials for the integration of different tissues in a multi-organ-on-a-chip platform J. Ramon-Azcon*, X. Fernández-Garibay, F. Velasco-Mallorquí, A. Hernández, A. G. Castaño, M.A. Ortega <i>Institute for Bioengineering of Catalonia (IBEC), Spain</i>	12:00-12:20 [SYMB08.04] Hybrid materials made of conjugated polymers towards electronics applications C. Lartigau-Dagron, L. Billon, A. Bousquet* <i>University of Pau, France</i>	12:00-12:20 [SYMC08.04] Inside/outside, grafting-to/grafting-from: Versatile postsynthetic modifications of a metal-organic framework containing a photochemically active linker P. Behrens*, A. Mohmeyer, D.P. Warwas, A. Schaate <i>Leibniz University, Germany</i>	[SYMB108.07] Synthesis and characterization of polymer layered silicate nanocomposites with tunable mechanical properties J.E. Steinhoff*, K.M. Thien, M. Denz, S. Köster, P. Vana <i>Georg-August University Goettingen, Germany</i>
12:10-12:30	12:10-12:40 Featured Talk: [FTA11] Shape-specific patterning of polymer-functionalized nanoparticles E. Kumacheva, <i>University of Toronto, Canada</i>	12:20-12:40 [SYMB08.05] Superwetttable ferromagnetic Cu-Fe-Co powder alloy for efficient water/oil separation O. Rius-Ayra*, A. Biserova-Tahchieva, I. Lopez-Jiménez, N. LLorca-Isern <i>Universitat de Barcelona, Spain</i>	12:20-12:40 [SYMC08.05] Breathing-dependent redox activity in a tetrathiafulvalene-based metal-organic framework M. Souto* ¹ , J. Romero ¹ , J. Calbo ² , I. Vitórica-Yrezábal ³ , J. Zafra ⁴ , J. Casado ⁴ , E. Ortí ¹ , A. Walsh ² , G. Mínguez Espallargas ¹ <i>¹ICMol - Universidad de Valencia, Spain, ²Imperial College London, UK, ³University of Manchester, UK, ⁴Universidad de Málaga, Spain</i>	[SYMB108.08] Structural and electrochemical properties of ultra-thin SNO/rGO hybrid supercapacitor W.H. Lee*, M. Im, S. Nahm <i>Korea University, Republic of Korea</i>
12:45-13:00	Conference Closing			