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- Deeper insight into platinum-graphene catalysts: towards filtering of exhaust gases and synthesis of energy vectors.
- Multi-method approach sheds light on the potential of plants to attenuate metals' load in natural water resources
- Research gives new hints for anti-inflammatory drug delivery
- CERIC at the Hercules School 2017
- Hands-on training in the Elettra laboratories or the pupils participating in PaGES2
- Kick-off meeting of the European Research Infrastructure for Heritage Science - Preparatory Phase (E-RIHS PP). Florence - Italy, 30-31 Mar. 2017
- Funded the Slovenia-Austrian Interreg project RETINA. Feb. 2017
- Number of applications significantly increased in the last CERIC call for proposals. Mar. 2017

Events

- EMSO ERIC Launch Event. Rome - Italy, 27 Jan. 2017
- CERIC at the Science Europe Workshop. Dublin - Ireland, 30-31 Jan. 2017
- CERIC at the conference *Spreading Excellence and Widening Participation in the FP9*. Brussels - Belgium, 24 Feb. 2017
- CERIC at the InRoad Engagement Roadmapping Workshop. Brussels – Belgium, 14 Mar. 2017
- Science @ CERIC Workshop. Hermagor-Presserger See - Austria, 27-29 Mar. 2017
- 6th ERIC Network Meeting. Helsinki - Finland, 9-10 May 2017
- CETS 2017 - Central European Training School on neutron techniques. Budapest - Hungary, 8-12 May 2017
- GISR 2017 - Italian Meeting on Raman Spectroscopies and Non Linear Optical Effects. Trieste - Italy, 7-9 Jun. 2017
- 24th International Conference on X-ray Optics and Microanalysis - ICXOM 24. Trieste - Italy, 25-29 Sept. 2017

Highlights

- Jana Kolar appointed member of the High Level Group to advise on a future Europe Innovation Council – Belgium, 20 Jan. 2017
- CERIC interview with Prof. Andrea Mele (video)

News from the ACCELERATE project

- ACCELERATE kick-off meeting. Trieste - Italy, 26 Jan. 2016
- Workshop on Human Resources in ERICs. Rome - Italy, 21 Feb. 2017
- Satellite event at the NESY Winterschool 2017. Altaussee - Austria, 6 Mar. 2017

Results

Deeper insight into platinum-graphene catalysts: towards filtering of exhaust gases and synthesis of energy vectors*

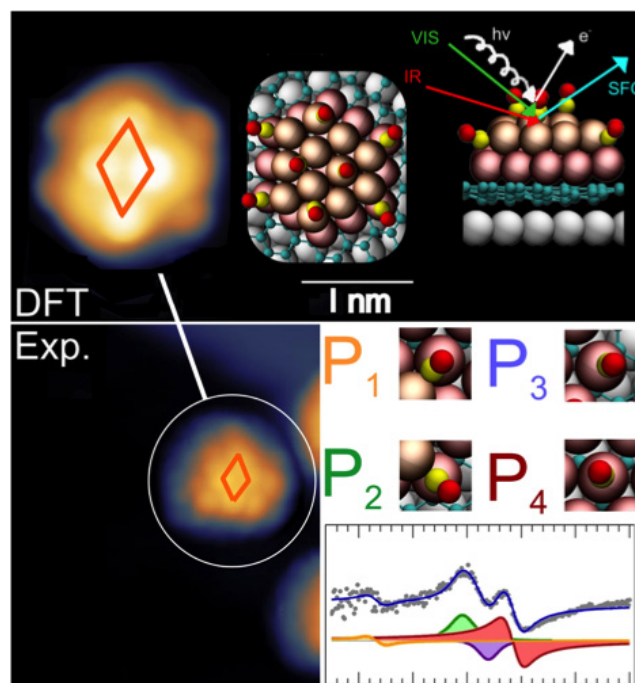
The chemical transformation of carbon monoxide (CO) is one of the most important processes, not only in factories but also in everyday life. Its applications range from the oxidation of poisonous CO to non-poisonous carbon dioxide (CO₂) in engine exhaustions, to the so-called “water-gas shift reaction”, where hydrogen, e.g. for fuel cells, is produced by a reaction between carbon monoxide and water. To make these reactions energetically efficient, catalysts based on platinum are widely used. Since platinum is a very expensive and rare precious metal, a strong focus in industrial and academic research is given to the development of catalysts with low platinum content. An approach to optimize platinum catalysts is to exploit the special properties of nano-sized particles on suitable supporting materials like graphene. In this perspective, it is of high importance to understand the interactions between carbon monoxide, the supporting material, and platinum.

The collaboration among three research teams of the University of Trieste, led by **Prof. Giovanni Comelli**, **Prof. Maria Peressi**, and **Dr. Erik Vesselli**, respectively, yielded a breakthrough in understanding a part of these interactions.

By combining state-of-the-art experimental and theoretical approaches with access, within the framework of a CERIC experiment, to instruments available at the Czech Partner Facility, they studied the change of such platinum catalysts on a graphene support when they are exposed to carbon monoxide. They exploited a new near ambient pressure photoelectron spectrometer (NAP-XPS) that allows measurements under almost realistic reaction conditions. Their measurements shed light into details about the mechanisms through which carbon monoxide weakens the connection between platinum and the graphene support. This leads to a coalescence,

basically a clotting, of the small particles to larger clusters that might affect the catalytic performance. This effect appears to be size-dependent, and relates with the onset of properties stemming from quantum mechanics due to the small size of the particles. The structure of the particles is also affected, and a peculiar diffusion mechanism takes place, yielding migration of carbon monoxide through the graphene sheet.

These important results mark a step forward in understanding the complex reactions that happens during the catalytic process. This understanding will help to design more efficient catalysts for a wide variety of technical applications.



Structure and adsorption properties of Pt nanoparticles as obtained from microscopy, spectroscopy, and theoretical approaches

*N. Podda, M. Corva, F. Mohamed, Z. Feng, C. Dri, F. Dvorák, V. Matolin, G. Comelli, M. Peressi, E. Vesselli, *Experimental and theoretical investigation of the restructuring process induced by CO at Near Ambient Pressure: Pt Nanoclusters on Graphene/Ir (111)*; ACS Nano 11 (2017) 1041, DOI: 10.1021/acsnano.6b07876

April 2017

Multi-method approach sheds light on the potential of plants to attenuate metals' load in natural water resources*

Extensive industrial mining often causes environmental problems. Many former mining sites around the world are heavily polluted with poisonous heavy metals that make the areas dangerous to live in, often for decades. For this reason, the last 25 years saw a rise in the development of remediation technologies to make those polluted zones habitable again. But the processes that the heavy metals undergo over a long time in a natural environment are complex and not completely understood, yet. Especially the influence of the exchange between the geosphere, the soil and water, and the biosphere, the plants and organisms, is mainly unknown. On the other hand, an understanding of these biosphere-geosphere interactions could lead to a significant step forward in the development of sustainable remediation techniques.

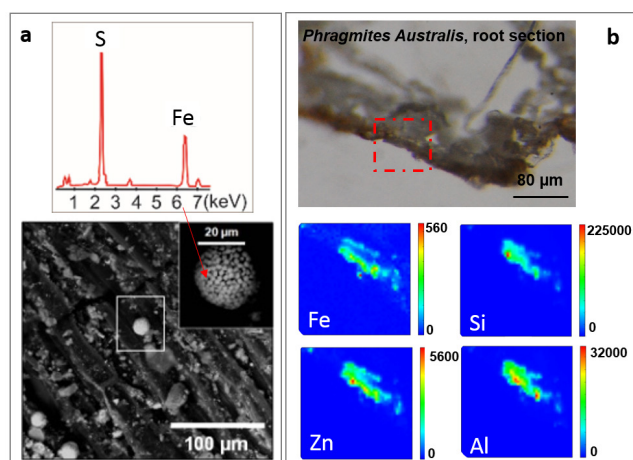
The research team around **Giovanni De Giudici** from the University of Cagliari, in Sardinia – Italy, is taking up the challenge of understanding how plants influence the behaviour of heavy metals in polluted rivers. Together with researchers from the U.S. Geological Survey, they performed a large multi-technique study on heavy metals in the Sardinian river of Rio San Giorgio [1]. The area of that river has been exposed to heavy Lead and Zinc mining since centuries, up to 20 years ago. For this reason, the area has been heavily polluted.

De Giudici's study focuses on the so-called hyporheic zone, which is the shallow shore of the river. Here the water flows naturally very slow and the vegetation is very dense. This allows a maximum interaction

between the water and the surrounding environment. The researchers were taking plant and soil samples from this zone at different point of the river to see how the pollutants are distributed.

For the detection of pollutants in the samples, they used X-ray microscopy at the TWINMIC beamline and X-ray absorption spectroscopy at the XAFS beamline, both from the CERIC Italian Partner Facility at Elettra in Trieste. The combination of the two techniques enables the simultaneous determination of the concentration and the chemical state of heavy metals in different parts of the soil and the plant. This allows conclusions about how much pollutant is filtered from the water and in which composition it is stored in the plants and soil.

As a result of this study, the researchers could create a map of pollutants in the hyporheic zone of the river. A big part of the heavy metals found in the water is oxidized and stored in the plants' roots, but some of it is also found in the stem and the leaves. An additional result was particularly surprising. The scientists found a high concentration of the mineral pyrite in the soil around the plants' roots. This iron-containing mineral suggests that the plant is influencing the chemical environment and supports chemical processes that lead to the storage of poisonous heavy metals into non poisonous minerals. It has been estimated that this effect can lead to an apparent decrease in Zn load up to 60%. This effect was by now unknown and, when fully investigated, might open new ways of using plants as more effective filters and cleaners in polluted areas.



EDS analysis (top) and SEM image (bottom) of framboidal iron sulphide on root of *Phragmites australis*. b) Ordinary light stereo-microscope image (top) and LEXRF maps of Fe, Si, Zn and Al of *Phragmites australis* (bottom)

*G. De Giudici, C. Pusceddu, D. Medas, C. Meneghini, A. Gianoncelli, V. Rimondi, F. Podda, R. Cidu, P. Lattanzi, R. B. Wanty, B. A. Kimball, *The role of natural biogeochemical barriers in limiting metal loading to a stream affected by mine drainage*, Appl. Geochem. 76, 2017, 124-135 – Original article: <http://dx.doi.org/10.1016/j.apgeochem.2016.11.020>

Research gives new hints for anti-inflammatory drug delivery*

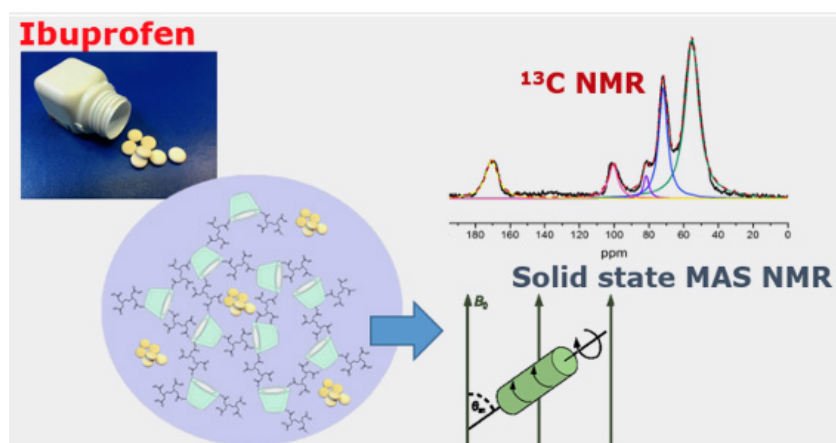
This work aimed at testing exploring the capability of two types of nanosponges for the entrapment and delivery of Ibuprofen, the Active Principle Ingredient (API) of many anti-inflammatory drugs.

Nanosponges are formed from molecules that link to each other forming macromolecular structures, characterised by the presence of cavities that can accommodate other molecules, like Ibuprofen in this case. In this way, when the nanosponge is loaded with the drug, it becomes a carrier. The carrier provides a better stability to the drug and allows to control the delivery process. In some cases, the nanosponge can even help to select the most active one from a group of molecules.

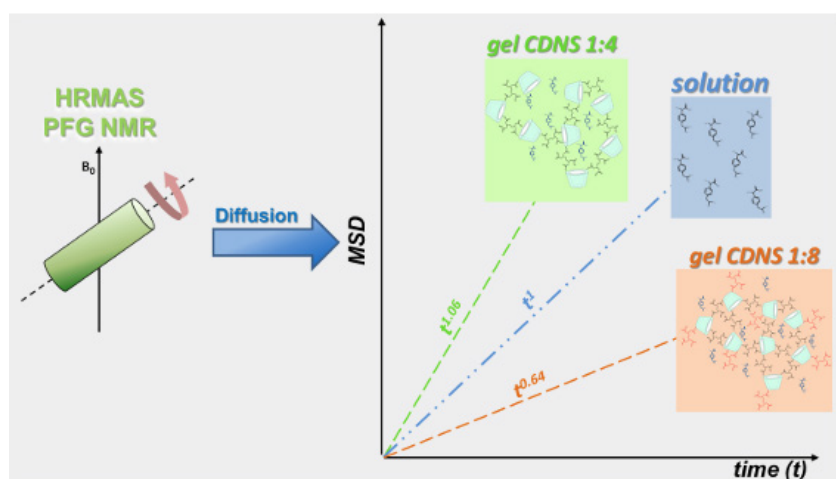
The dynamics and interactions of two formulations of cyclodextrin nanosponges with Ibuprofen, were studied with a particular Nuclear Magnetic Resonance

(NMR) technique (cross-polarisation magic angle spinning) and X-Ray Diffraction, available at CERIC-ERIC.

The authors concluded that the repertoire of NMR methods used was helpful to monitor the effective state of the drug in the carrier and of the polymer carrier in the presence of the guest drug. In a counterintuitive way, Ibuprofen was found to form small aggregates (dimers), in turn organized in small crystalline domains confined in the CDNS cavities. CDNS retains its structure which does not undergo changes upon addition of the drug. However, the NMR measurement pointed out that the dynamic regime of the polymer indeed changed. This finding can be used as a fingerprint of the formation of aggregation, at molecular level, between the drug and the host polymer rather than a pure physical conglomerate.



Dynamics and interactions of ibuprofen in cyclodextrin nanosponges by solid-state NMR spectroscopy



Anomalous diffusion of Ibuprofen in cyclodextrin nanosponge hydrogels

*M. Ferro, F. Castiglione, N. Pastori, C. Punta, L. Melone, W. Panzeri, B. Rossi, F. Trotta, A. Mele, *Dynamics and interactions of ibuprofen in cyclodextrin nanosponges by solid-state NMR spectroscopy*, in Beilstein J. Org. Chem. 2017, 13, 182–194, doi:10.3762/bjoc.13.21

April 2017

CERIC at the Hercules School 2017

Trieste - Italy, 20-24 March 2017

The HERCULES European School is a well-known course for students from all over the world who want to learn more about the use of Neutron and Synchrotron radiation in fields of Biology, Chemistry, Physics, Material Science and Geosciences. Besides the 1-month main course at the European Synchrotron and Neutron source in Grenoble/France, the school contains a set of specialized 1-week courses at other large Research Infrastructures.

From March 20th to March 24th, the 2017 edition of the HERCULES specialized school took place at the ELETTRA and FERMI laboratories in Trieste/Italy. 24 students from all over Europe came to Trieste and learned about the use of open access facilities.

On this occasion, CERIC was presented to the students as a research facility for multi-technique experiments.

Primož Šket, senior scientist at the Slovenian CERIC Partner Facility in Ljubljana, presented the features and potentials of NMR experiments complementary to Synchrotron and Neutron radiation, by giving an overview of the research conducted at the Slo NMR and presenting some relevant case studies. Furthermore, in addition to Elettra, the Czech and Austrian beamlines (MSB and SAXS) offered a hands on training, and **Matthias Girod** from CERIC-ERIC, gave a tutorial about successful proposal writing for multi-technique experiments.



April 2017

Hands-on training in the Elettra laboratories for the pupils participating in PaGES2

Friuli Venezia Giulia - Italy, January - March 2017

The pupils taking part in the PaGES 2 project had the chance to attend hands-on training sessions at the laboratories of the Italian CERIC Representing Entity in Trieste, Elettra Sincrotrone, to conduct an experiment with gold nanoparticles.

The senior scientist **Loredana Casalis** presented the physical and chemical properties of metal nanoparticles, also showing their possible applications and uses in the field of biotechnology. In particular, the optical properties of gold at the nanoscale were shown, by analysing nanoparticles with a UV-Vis spectrophotometer.

The students, with the support of Casalis' group, also studied the absorption properties as a function of the nanoparticle size and the effects induced to the nanoparticles by different environments, changing pH and salt concentration in the solution and monitoring how their absorption properties were affected.

this could be a valuable path for their future studies and careers.

Pupils also saw that nanoparticles can be used in solution as well as deposited on solid surfaces, and how to use novel, high resolution microscopy

techniques as the Atomic Force Microscopy (AFM) to characterize them. They learned how to conjugate nanoparticles with a controlled number of short DNA molecules on them, and how to use DNA hybridization to promote the controlled formation of nanoparticle aggregates, by monitoring the variation of the absorption properties of the system. They learned that the system they built was a nano-assay to monitor with high precision, for instance, the kinetics of enzymes which unwind the DNA double helix, and to test drugs that inhibit such unwinding. Finally, the pupils also learned that the same DNA on the nanoparticle can be used to load "functional" molecules able to recognize, for example, another molecule that acts as biomarker of a disease.

PaGES 2 participants had direct experience of these phenomena by interacting with scientists and by preparing the chemical solutions and using the instruments themselves. By being actors of the scientific process, they entered into the daily reality of a researcher, with the aim of evaluating whether this could be a valuable path for their future studies and careers.



April 2017

Kick-off meeting “European Research Infrastructure for Heritage Science – Preparatory Phase” (E-RIHS PP)

Florence - Italy, 30-31 March 2017

On 30-31 March, the H2020-Infradev project E-RIHS PP - European Research Infrastructure for Heritage Science - Preparatory Phase, was officially launched in Florence.

CERIC took part in the event as one of the 20 partners involved. Throughout the project, it will exploit its three years experience as an established ERIC to give advice and provide support in matters related to governance and finance, as well as in legal and logistical aspects, in order to foster the preparatory phase of E-RIHS, the only pan-European Research Infrastructure in the field of social and cultural innovation that has been accepted in the European Strategy Forum Research Infrastructure (ESFRI) Roadmap 2016.

Coordinated by the Italian National Research Council, E-RIHS connects researchers in the natural sciences and humanities and fosters a trans-disciplinary culture of exchange and cooperation while offering access to a wide range of cutting-edge facilities,



high-level scientific instruments, methodologies, data and tools for advancing knowledge and innovation in the study and preservation of heritage. E-RIHS brings together 18 countries as founding members, 10 international countries as supporting partners and over 80 institutions.

It has its central hub in Florence and national nodes located across Europe. National nodes are made of fixed and mobile national infrastructures of recognized excellence, physically accessible collections/archives and virtually accessible heritage data.

E-RIHS is now working on assembling a worldwide network of affiliated partners and creating a global research infrastructure with the support of the intergovernmental organization ICCROM.



Funded the Slovenia-Austria Interreg project RETINA

February 2017

The project RETINA was selected for funding within the Interreg programme Slovenia-Austria, Priority axis 1 - Strengthening cross border competitiveness, research and innovation.



The project is coordinated by University of Nova Gorica (Slovenia) and among the partners, there are also two CERIC partner facilities: Technical University Graz and NMR Centre from Chemical Institute in Ljubljana.

RETINA aims at fostering access to research and innovation (R&I) infrastructures by companies in peripheral regions, especially in the field of advanced material engineering, by building a network of established laboratories with complementary skills in material science and providing research centres and small, medium and large enterprises with a “single entry point” access to the network. This will increase the chances of reaching the critical mass of R&I facilities in the area, stimulate companies to invest in R&I and consequently contribute to enhancing the competitiveness of less favoured regions.

The project’s main outputs will be informative events, laboratory visits, Pilot Actions performed in collaboration with industries and research centres, and feedback to public authorities, targeting different groups (scientific partners, knowledge transfer intermediaries, industries and decision makers) to maximize the impact.



Number of applications significantly increased in the last CERIC call for proposals

March 2017

In the last call for proposals, 81 proposals from 24 countries were submitted, requesting the use of 163 instruments, with an average of 2 instruments per proposal. The biggest number of proposals arrived from Italy, Czech Republic, Poland and Germany. The most requested instruments are HRTEM, FESEM, NAPXPS, XPS/XPD, SAXS and Materials Science beamlines. The evaluation process will end in mid May 2017.

Events

EMSO ERIC Launch Event

Rome - Italy, 27 January 2017



EMSO ERIC, the new European Research Infrastructure Consortium (ERIC) with its seat in Italy, was officially launched with a press event on 27 January 2017, at the Foreign Press Association in Rome. *“EMSO ERIC (European Multidisciplinary Seafloor and Water Column Observatory) is crucial for obtaining coherent sets of data for the long term monitoring of European seas and oceans. These data are very important for monitoring the effects of climate change, but also for mitigating geo-hazards and increasing biodiversity safety”*. With these words, **Robert-Jan Smits**, General Director of Directorate General for Research & Innovation RTD-European Commission, has gone straight to the core mission of EMSO ERIC.

EMSO-ERIC was set up by eight countries: France, Greece, Ireland, Italy, Portugal, Romania, United Kingdom, Spain. Its headquarters are in Rome. The aim of the Consortium is to actively promote the European scientific research on the marine environment.

CERIC at the Science Europe Workshop

Dublin – Ireland, 30-31 January 2017



**SCIENCE
EUROPE**
Shaping the future of research

Building on the 15 recommendations of the Science Europe Working Group on Research Infrastructures, fostering compatible approaches to the setting up of strategic priorities for RIs and to innovative funding among countries, the workshop *Cross-border Collaboration and Portfolio Management of RIs* aimed to:

- Explore the concept of asset management in the context of RIs;
- Review mechanisms aiming to balance out support to existing or planned new RIs and support to regional, national or international RIs;
- Discuss the preconditions and barriers to cross-border collaboration for setting up and running RIs.

The workshop gathered representatives of Science Europe Member Organisations (both research funding and performing organisations) and of various RI-related bodies and initiatives from across Europe.

April 2017



CERIC at the conference *Spreading Excellence and Widening Participation in the FP9*

Brussels - Belgium, 24 February 2017

On February 24th, **Jana Kolar** participated as keynote speaker at the event *Spreading Excellence and Widening Participation in the FP9*, organized in Brussels and hosted by the Polish Science Contact Agency.

The main goal of the meeting was to give valuable inputs to help in shaping the future Framework Programme. Among the speakers were **Dr Jan Krzysztof Frąckowiak** (PoISCA), **Marina Ranga** - JRC Sevilla, and **Prof. Krzysztof Jan Kurzydłowski**, senior researcher at the Warsaw University of Technology. One of the core issues discussed was H2020 remuneration rules, in particular concerning some of the EU 13 countries.



CERIC at the InRoad Engagement Roadmapping Workshop

Brussels - Belgium, 14 March 2017



CERIC Executive Director, **Dr. Jana Kolar**, is a member of the reflection group of the InRoad project, which met in Brussels on 14 March at the first of a series of workshops at the Belgian Science Policy Office (BELSPO) in Brussels, to engage with the relevant stakeholders involved in national decision-making and evaluation practices for research infrastructures.

InRoad is a coordination and support action funded under Horizon 2020 that aims to contribute to a better harmonisation of roadmapping, funding and evaluation practices for research infrastructures in Europe. It provided the opportunity to exchange on national practices, discuss key concepts and methodologies and to be engaged in the InRoad survey questionnaire design, which will be launched later in spring.

April 2017

Science@CERIC Workshop

Hermagor-Presegger See - Austria, 27-29 March 2017



From 26 to 29 March 2017, directors and researchers from the CERIC Partner Facilities (PFs) met at the Science@CERIC workshop in Hermagor-Presegger See, Austria, to get acquainted with the ongoing activities and research interests of the other PFs and to identify common topics for joint research and development activities. Participants also discussed the funding opportunities where the PFs, in the framework of CERIC, could have competitive advantages.

The workshop has been a valuable occasion to strengthen CERIC-ERIC internal research in general and to highlight the possibilities offered by specific instruments, facilities and projects, to the development of the CERIC scientific community, showing selected achievements, future development plans and possible areas of interactions with other CERIC facilities.

6th ERIC Network Meeting

Helsinki - Finland, 9-10 May 2017

The 6th ERIC Network Meeting will take place on the 9-10 May 2017 in Helsinki - Finland, at the ICOS ERIC headquarters.

The meeting will bring together representatives from ERICs, national governments and the European Commission, as well as research infrastructures planning on applying for ERIC status, to discuss best practices and future challenges of existing and future ERICs, with the goal of finding possible solutions to common administrative and financial issues.

Integrated Carbon Observation System (ICOS) is a pan-European research infrastructure which provides harmonised and high-precision scientific data on carbon cycle and greenhouse gas budget and perturbations. CESSDA will be supporting the meeting, as another pan-European Research Infrastructure in the Nordic region.

April 2017

CETS 2017 - Central European Training School on neutron techniques

Budapest - Hungary, 8-12 May 2017

CETS 2017 provides insight into neutron scattering techniques and their application for studies on the structure and dynamics of condensed matter. Theoretical training and practical work, together with a poster session, give a good opportunity for the participants to connect their own research with neutrons.

The school will be a forum for the presentation and discussion of actual research works of young scientists and it will provide comprehensive experimental skills and guidance in result interpretation, by allowing the European user community to have hands-on-training on cold neutron instruments.

The Central European Training School on neutron techniques will take place at the Csillebérc Campus in Budapest, Hungary, from the 8th to the 12th of May, 2017. PhD students, students and newcomers in this field are welcome.



11th CETS2017
Budapest, Hungary



8-12 MAY, 2017
CETS2017
BUDAPEST, HUNGARY

Central European Training School on neutron techniques

gives insight into neutron research methods and their application in studying the structure and dynamics of condensed matter. Theoretical training and practical work together with a poster section gives good opportunity for the participants to connect their own research with neutrons. PhD students, students and newcomers in this field are welcomed.



SMALL ANGLE
NEUTRON
SCATTERING

PROMPT GAMMA
ACTIVATION
ANALYSIS

NEUTRON
DIFFRACTION

NEUTRON
REFLECTOMETRY

NEUTRON IMAGING

LOCATION

Csillebérc Campus
Building 19
Conference Room

www.kfki.hu/cets

Application deadline:
15th March

More info at: <http://www.kfki.hu/cets/>

GISR 2017 - Italian Meeting on Raman Spectroscopies and Non Linear Optical Effects 2017

Trieste - Italy, 7-9 June 2017



Italian Meeting on Raman Spectroscopies and Non Linear Optical Effects 2017

From 7 to 9 June 2017, in Grignano (Trieste), the Italian CERIC Representing Entity, Elettra Sincrotrone Trieste, will organize the fifth national congress on Raman spectroscopies and non linear optical effects – GISR 2017. The conference is a well established meeting point for researchers from academia, research centres and industries, who study and use these spectroscopies in many fields of Chemical, Physical, Biological, Pharmaceutical Sciences and in Engineering and Medicine, and covers both theoretical aspects and applications.

Keynote lectures will be presented on enhanced effects, like SERS, UV Resonant Raman and Stimulated Raman spectroscopy and on novel optical Raman microscopies applied to the fields of biomedical materials and cultural heritages. The congress welcomes in particular young researchers who will be given the opportunity of reporting and discussing their results. Grants are available to PhD students.

Website of the event:

<http://www.elettra.eu/Conferences/2017/GISR/>

April 2017

24th International Conference on X-ray Optics and Microanalysis

Trieste - Italy, 25-29 September 2017



The Italian CERIC Representing Entity, Elettra Sincrotrone Trieste, organizes the 24th International Conference on X-ray Optics and Microanalysis - ICXOM24, taking place in Trieste - Italy, from 24 to 29 September 2017.

ICXOM24 is an international symposium open to physical scientists, instrument developers and those using X-ray microscopes and electron probe analysers, for the discussion of new developments and advances in instrumentation, methods and applications in the fields of X-ray micro- and nano-analysis.

This edition is focused on synchrotron radiation. Recent developments in laboratory instrumentation are also highly welcome. Besides micro-beam X-ray fluorescence and absorption spectroscopy,

different methods based on diffraction and full-field imaging are covered, together with their applications in Life Sciences, Material Science, Earth and Environmental Sciences, and Cultural heritage.

Topics include: Optics for Microanalysis, Scanning Microscopy, Full-field Imaging, Coherent Diffractive Imaging, Microdiffraction, X-ray Fluorescence, Absorption spectroscopy, Data Analysis, Detectors. ICXOM24 also includes a satellite workshop on MA-XRF (Macro-XRF) applied to Cultural Heritage, on Monday 25 September.

Abstract submission: from March 1st to May 15th
Deadline for registration: September 1st, 2017

More info at: <http://www.icxom24.it>

Conference programme

MAXRF workshop	ICXOM24			
Monday 25	Tuesday 26	Wednesday 27	Thursday 28	Friday 29
Registration	Registration			
Welcome	Welcome			
MAXRF Workshop on "Macro X-ray Fluorescence Scanning in Conservation, Art and Archaeology"	Two parallel morning sessions	Two parallel morning sessions	Two parallel morning sessions	Two parallel morning sessions
Lunch break	Lunch break	Lunch break	Lunch break	Lunch break
MAXRF Workshop on "Macro X-ray Fluorescence Scanning in Conservation, Art and Archaeology"	Two parallel afternoon sessions	Two parallel afternoon sessions	Two parallel afternoon sessions	Two parallel afternoon sessions
	Poster Session I	Poster Session II	Visit to Elettra and FERMI	Concluding remarks
Conference dinner				

Highlights

Jana Kolar appointed member of the High Level Group to advise on a future Europe Innovation Council

Brussels - Belgium, 20 January 2017

The European Commission has announced the 15 members of the new High Level Group that will advise the Commission on how to strengthen support for breakthrough, market-creating innovation in Horizon 2020 and future research and innovation programmes. In this area Europe lags significantly behind its competitors, as reflected in the limited number of European startups that have scaled up to become global leaders in new innovation markets.

Carlos Moedas, European Commissioner for Research, Science and Innovation, said: *I am delighted that we have managed to attract such a high-calibre group of innovators operating in different fields to assist the Commission in designing a European Innovation Council. I am confident that they will bring a vital user perspective, helping us to establish an EIC that is fit for purpose and targeted on boosting the quality of EU support for breakthrough, market-creating innovation on which Europe's prosperity increasingly relies.*

The High Level Group of Innovators brings together leading personalities from across Europe with a wide range of expertise in business innovation, including entrepreneurs, CEOs, investors and other major players in the innovation ecosystem. Among them the members also **Jana Kolar, Executive Director of CERIC-ERIC**.

CERIC Interview with Prof. Andrea Mele

Trieste - Italy, March 2017

Andrea Mele, Professor of Chemistry at the Politecnico di Milano and in charge of the Nuclear Magnetic Resonance Spectroscopy Laboratories of the Department of Chemistry, presents the results of his latest research at CERIC on cyclodextrin nanosponges as tools for drug delivery, with potential application, among others, in the biomedical sector.



[CLICK HERE TO WATCH THE VIDEO](#)

ACCELERATE Kick-off meeting

Trieste – Italy, 26 January 2017

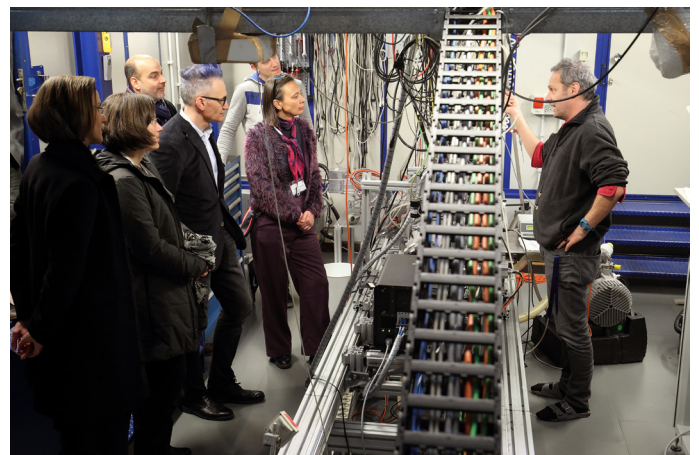


On January 26th, 12 representatives of project partners from six countries, gathered at the CERIC-ERIC headquarters in Trieste to launch the H2020 funded project ACCELERATE. The project's main objective is to help ensuring the long term sustainability of Research Infrastructures in general and ERICs in particular. Under the coordination of CERIC-ERIC, the project partners will tackle issues ranging from socio-economic return of Research Infrastructures to concrete practical issues like international mobility of employees or intellectual

property rights.

The Kick-off meeting provided the partners, including the European Spallation Source ERIC and the Extreme Light Infrastructure, with the platform to present their contribution to the project, plan the first steps, and get acquainted with the project's management structure and formalities.

The event was also a forum for the partnership to meet in person, share views and ideas and strengthen the network of research infrastructures.



Workshop on Human Resources in ERICs

Rome - Italy, 21 February 2017



On February 21, the CERIC-MIUR workshop on Human Resources in ERICs, co-funded by the MIUR and the EC H2020 project ACCELERATE, was held in Rome. The event focused on some of the topics of greatest interest to RIs managers: human resources, their management and the most difficult aspects of their regulations in an intergovernmental framework such as that of the ERICs.

Representatives of the Italian Ministry of Education, University and Research – MIUR, including **Gianluigi Consoli**, **Francesco Ciardiello** and **Antonio Di Donato**, **Prof. Carlo Rizzuto** - President of the General Assembly of CERIC-ERIC and director general of ELI-DC, and **Andrea Crivelli** - CERIC consultant with decades of experience in the management of human resources presented the existing problems in this area from the legal

and financial points of view, in order to find possible viable solutions also as a result of the exchange of the participants' experiences on the subject. After a first presentation of the EU Charter for Researchers, Mr. Crivelli showed the critical issues related to the mobility of the staff of research institutions, to compulsory and complementary pensions, to contracts and health care, and the related economic issues.

All instances and questions raised during the meeting will be collected and presented at one of the upcoming ERIC Network Meetings, that will bring together representatives of the ERICs and the European Commission, with the aim of formulating answers and solutions that interweave and take into account both national and European aspects.

Satellite Event at the NESY Winterschool 2017

Altaussee - Austria, 6 March 2017

Students and early stage researchers interested in analytical techniques attended the CERIC satellite workshop that took place on the 6th of March along the well-known NESY Winterschool in Altaussee, Austria. The event, organized by CERIC within the framework of the ACCELERATE project – presented complementary methods for the analysis and characterization of advanced materials.

The meeting introduced CERIC and its scientific offer, with a special focus on Electron Microscopy, Ion Beam Analysis techniques and NMR Spectroscopy for Structural Characterization.

One of the aims, in line with the ACCELERATE goals, was to support the outreach activities of CERIC in the macro-region along eastern EU, in order to attract new users by encouraging young scientists to use the techniques available in the Consortium, also with a multi-technique approach.

Finally, the workshop highlighted the possibilities of the Consortium to act as a versatile and strong partner in sponsored research projects.





Send your comments, articles and contributions to:
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