

## New year greetings

from the President, Prof. Rodrigo Martins



Dear all,

We start a New Year where friendship, respect and responsibility to all surround us must be the priority for our lives and our commitments. I thank all the engagement put to the challenges we have, not only concerning our own matters but the global ones that make us united around IUMRS. I deeply thank all efforts that our committee chairs put in to empower all our responsibilities and to advance in key issues that are the reason for our existence: to exploit science and technology for all where materials are the activator and accelerator for all! 2022 must be our year to consolidate all we promise and of our full responsibility we have concerning our expected outcomes on improving our commitments towards exploiting novel horizons as far as outreach and advocacy are concerned; the promotion of science, global and enhancing networking; exploiting new frontiers concerning our engagement in supporting talent awards and novel commitments to promote the science that our communities are engaged to do so.

HAPPY 2022 TO ALL OF YOU! And please, keep safe as we still could not overcome the COVID 19!

Rodrigo Martins  
President of IUMRS

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## IUMRS General Assembly 2021

The General Assembly of IUMRS 2021 was held online on 6 September 2021. Presidents and/or their representatives of all 11 active Adhering Bodies, as well as IUMRS officers, attended the meeting. Besides the usual matters (election of officers, budget, conferences), the meeting discussed possibility of setting up a Regional Office in African, review of IUMRS governance and global coverage. Election of officers and decisions on other issues will be carried out post the meeting due to inconvenience of voting at online meeting.



The IUMRS General Assembly Meeting, 6 September 2021

## IUMRS Executive Council 2022

Election of two IUMRS officers were conducted electronically and the results were announced at the EC meeting held virtually on 9 November 2021. Professor Yuan Ping Feng (MRS Singapore) was re-elected the Second Vice President and Professor Byungha Shin (MRS Korea) was elected the Treasurer. Both will serve a two-year term, from January 2022 to December 2023.

Yuan Ping Feng has been serving IUMRS for many years, first as the Secretary and then the Second Vice President since January 2019. He serves concurrently as the Chair of the Membership Affairs Commission. Yuan Ping Feng is a computational materials physicist affiliated to the National University of Singapore.

Byungha Shin is a professor at Korea Advanced Institute of Science and Technology (KAIST) in Korea, working primarily on energy applications such as photovoltaics and (photo)electrochemical energy conversion. He has been serving as a Board Member of Business Division of MRS-Korea and also as one of representatives of MRS-K to IUMRS since 2017. He has been a member of IUMRS Development Committee since 2019 and undertook the Treasurer position beginning this year. The IUMRS Executive Council 2022 members include

Rodrigo Martins, President  
Yafang Han, Immediate Past President  
Osvaldo N. Oliveira, First Vice President  
Yuan Ping Feng, Second Vice President  
Jim Williams, Secretary  
Byungha Shin, Treasurer  
B. V. R. Chowdari, IUMRS Head Office Director  
John Baglin, Liaison to International Science Council

*Photos on the right: EC members. Top row (left to right): R Martins, Y F Han, O N Oliveira, Y P Feng. Bottom row, (left to right): J Williams, B Shin, B V R Chowdari, J. Baglin.*

## IUMRS Regional Office in Africa

To further promote materials science research and development in Africa, a proposal to establish an IUMRS Regional Office (RO) in Africa was presented at the recent IUMRS General Assembly meeting which was subsequently voted on by Adhering Bodies. The proposal received unanimous approval by Adhering Bodies that cast votes. Thus, an IUMRS RO in Africa has now been approved. Preparation for the opening of the RO is underway. African MRS has been very active in promoting materials science research and international collaboration. It has gained sufficient experience and the appropriate strategic links to host the RO. The Government of Botswana is strongly supportive of materials science as evidenced by the setting up of a state-of-the-art Centre of Materials Science at the Botswana Institute for Technology Research and Innovation (BITRI). BITRI has been the host of the African MRS Secretariat office since 2017 and it has also been identified as the most appropriate location for the RO in Africa, thus leveraging off successful promotion of materials science over the past five years. The setting up of the RO in Africa is being driven by the current President of the African MRS, Dr Samuel Chigome.



## International Year for Basic Science for Sustainable Development

IUMRS strongly supports basic science research and education under the broad banner of materials science, a discipline that is massively interdisciplinary, involving physics, chemistry, mathematics, biology, biomedicine and engineering. Hence, IUMRS fully embraces the IYBSSD in 2022, and seeks to work collaboratively with IUPAP and other Unions in partnership to make this special year a huge success. Through its Meeting Commission members, IUMRS can play an important role in planning and organising events, as well as

promoting IYBSSD through IUMRS communications channels and its Adhering Bodies. We will also plan to hold special events or forums highlighting different aspects of 'basic science for all' at our sponsored conferences held in 2022. IUMRS is committed to enhancing global education in materials science and we believe we can contribute to initiatives in basic science education during IYBSSD. Finally, IUMRS is excited to be a founding Union and member of the organising Unions for the IYBSSD. Interested parties may contact Professor B V R Chowdari, Director of IUMRS Head Office, who is a member of the IYBSSD Steering Committee.

## International Conference on Frontier Materials 2022 & IUMRS Frontier Materials Awards

In conjunction with the first International Conference on Frontier Materials (ICFM) which will be held from 28 March to 1 April 2022 in Zhuhai, China, IUMRS will launch a series of Frontier Materials Awards, including IUMRS Frontier Materials Scientists Award, IUMRS Frontier Materials Young Scientists Award and IUMRS Frontier Materials Graduate Students Award. These awards are established to recognize excellence in research and development and to encourage young researchers to excel in research in frontier materials. Please visit the ICFM web site (<http://www.icfm.org.cn>) for details. ICFM 2022 is organized by the IUMRS Regional Office in Asia, located in Shanghai, China. ICFM complements other IUMRS conference series and will provide another platform for researchers from various sectors to showcase their recent discoveries, to discuss technology development and transfer of Frontier Materials in commercial and industrial applications.

## Thanks to Professor Naoki Kishimoto



IUMRS thanks Professor Naoki Kishimoto for his dedicated service as the Treasurer from January 2020 to December 2021. During this period, Naoki made significant contributions in ensuring that operation of the union follows strictly the protocol, and rules for financial transactions in particular are stick to strictly. This is very important following the relocation of IUMRS

Head Office and IUMRS is operating in a new financial system. To appreciate his distinguish services, a special plaque (figure on right) was made for Prof. Naoki Kishimoto and was presented to him by the President of IUMRS, Professor Rodrigo Martins.

*Photo of the plaque presented to Professor Naoki Kishimoto*





## IUMRS Gender Equity and Diversity Code of Conduct

At its General Assembly meeting held on 26 Feb 2021, IUMRS has approved to adopt the following gender equity and diversity code of conduct.

### Background

The International Union of Materials Research Societies (IUMRS) seeks to facilitate international cooperation and information exchange among materials research organizations; to advance multidisciplinary materials research in all its aspects; to promote communication of international materials research activities through appropriate media; to coordinate, develop, promote and encourage series of distinguished international conferences, workshops and outreach activities; and to promote materials science education worldwide.

IUMRS is committed to ensuring broad representation in all its objectives and strives for best practise in gender equity, diversity and inclusiveness in our membership, activities, events, programs, and services.

### Expectations of Professional Respectful Behaviour

IUMRS members, committees, commissions, speakers, award recipients, and IUMRS- sponsored conference and event attendees will:

- Demonstrate the values of respect, integrity and collegiality.
- Treat others with respect, dignity and courtesy at all times including on social media.
- Foster a diverse and inclusive environment, free from discrimination and harassment.
- Uphold the reputation and standing of IUMRS.
- Be aware of conscious and unconscious biases that affect who we tend to favour in our decision-making and actions (e.g. for nominations, commission and committee members, awards).
- Maintain awareness of our own conduct and interaction with others when representing or participating in IUMRS activities.
- Maintain awareness of the conduct of others, and where such conduct clearly violates this code of conduct and impacts negatively on others, intervene directly or alert relevant IUMRS representatives promptly (such as organising committee

members for IUMRS-sponsored conferences or events, an IUMRS Executive Council (EC) officer or members of the IUMRS Gender Equity and Diversity Committee for all other IUMRS activities).

### Unacceptable Behaviour

Harassment in any form, including encouraging harassing behaviour, will not be tolerated. IUMRS members, committees, commissions and conference and event attendees must not tolerate bullying, intimidation, discrimination, sexual harassment, physical or verbal abuse in any of the IUMRS activities including on social media platforms.

IUMRS will take seriously all reports of breaches of this code of conduct. Complaints will be handled with sensitivity, discretion, respect for due process and confidentiality to the extent allowed by the circumstances. Notification of unacceptable behaviour can be made by contacting a conference or event organiser, by emailing your concern to a member of the Gender Equity and Diversity committee or the IUMRS Secretary.

### Consequences of Unacceptable Behaviour

- Anyone requested to stop unacceptable behaviour must comply immediately.
- In cases where requests to stop unacceptable behaviour are not complied with, or where the breaches of this code of conduct are deemed by the conference/event organisers or by the IUMRS EC to be of an extremely serious nature, the EC will further investigate the matter and decide on any further actions that are deemed necessary.

### Conferences and events

At all IUMRS-sponsored meetings and events, the IUMRS Gender Equity and Diversity code of conduct must be complied with at all times. In addition, conference chairs and event organisers should ensure that all committees, forums, symposium organisers, session chairs and plenary/invited speakers should demonstrate gender diversity, and, wherever possible strive to be as diverse as the overall materials research community is globally.

## IUMRS Joins an ISC Committee on Gender Equity in Science

Together with several other international unions, IUMRS has joined the "Gender Equity in Science" committee of ISC. The Memorandum of Understanding has been signed by IUMRS President, Professor Rodrigo Martins. The aim of the ISC Standing Committee for Gender Equality in Science (SCGES) is to promote gender equality in science which is entirely consistent with the IUMRS Gender Equity code. Existing partners include International Astronomical Union (IAU); International Council of Industrial and Applied Mathematics (ICIAM); International Mathematical Union (IMU); International Union of Biological Sciences (IUBS); International Union of History and Philosophy of Science/Technology (IUHPST); International Union of Pure and Applied Chemistry (IUPAC); International Union of Pure and Applied Physics (IUPAP); Association for Computing Machinery (ACM); Gender in Science, Innovation, Technology and Engineering (GenderInSITE).

### About this Newsletter

*This Newsletter is published by the IUMRS Head Office. The objective is to update adhering bodies and members on IUMRS activities and latest news/developments in the materials research community. The Newsletters will be distributed to adhering bodies, affiliated members, and interested parties in softcopy (PDF format). Adhering bodies, affiliated members, and members of adhering bodies are invited to contribute news items and articles. Besides activity reports, we also welcome short reviews on a research topic of current interest, book reviews, commentaries, and views on issues relevant to the materials research community, etc. Please contact the Head Office (email: [admin@iumrs-ho.org](mailto:admin@iumrs-ho.org)) if you would like to contribute an article.*

## Report of the XIX B-MRS Meeting + IURMS ICEM 2021

*This article is adapted with permission from <https://www.sbpmat.org.br/en/reportagem-do-xix-b-mrs-meeting-iurms-icem-2021/>.*

After a postponement of a year, the seventeenth edition of the international conference on electronic materials of the International Union of Materials Research Societies (IUMRS ICEM 2021) began on August 30th, 2021, together with the XIX the Brazilian Materials Research Society (B-MRS) annual meeting. The nineteenth edition of the B-MRS annual meeting did not take place in a beautiful Brazilian city, as in past editions. This time, around 1,100 participants from more than 30 countries met in a cyberspace setting. Due to the Covid-19 pandemic, the event was held online for the first time, together with IUMRS ICEM).

### An event that had to be reinvented

The organization of the joint event started in 2018, when Professor Gustavo Dalpian (UFABC) took over the coordination and, nearly two years in advance, announced the location and date of the event: Hotel Rafain, Foz do Iguaçu, from August 30 to September 3, 2020. In the call for thematic symposia, held at the end of 2019, the organization received 49 proposals submitted by researchers from 18 different countries.

When, on March 11, 2020, WHO declared the Covid-19 pandemic, the organization of the XIX B-MRS Meeting + IUMRS ICEM was already in full swing, with Professor Dalpian as general coordinator (chairman), Professor Carlos Bufon as program coordinator and Professor Flavio Souza as general secretary. At that time, abstract submissions had been open for over a month. However, the organizing committee and the B-MRS and IUMRS boards were closely following the epidemiological situation and by the end of the month they announced that “due to the uncertainties related to COVID-19, and to reduce the risk of harming the health of our community” the XIX B-MRS Meeting + IUMRS ICEM would be postponed for one year. It would be held from 29 August to 2 September 2021. The venue would be maintained. The decision was widely approved by the community and a new call for symposia was opened.

On the afternoon of August 30, 2020, the day the event would open if the pandemic had not changed the plans, B-MRS held a live transmission to talk about the progress of the B-MRS Meeting and about the activities the Society was offering in the context of the pandemic. The live transmission also included a lecture by Professor Osvaldo Novais de Oliveira Jr (former president of B-MRS) regarding perspectives of science in the post-pandemic scenario.

On January 31, 2021, given the continuity of the pandemic and uncertainties regarding vaccination in Brazil, the chair of the XIX B-MRS Meeting + IUMRS ICEM announced a new change: the event would be held from August 30 to September 3 virtually, on a platform that was being developed by Aptor, a company that has provided B-MRS the event management system since its first events.

“We used our know-how acquired over 16 years working with scientific events, as well as our academic experience to provide a virtual experience that could transpose an entire complex physical program to a virtual one, without losing content,” says Leandro D’Agostino, executive director of Aptor. “When planning the module, we focused mainly on B-MRS, as it is an event with very rich content and impressively dynamic,” he says.

There were various challenges in putting together an online event, even for the organizing committee and the B-MRS team, which, for example, had to consider the time zones of the presenters from 33 countries. Another challenge, according to Professor Dalpian, was

to mobilize the community. “In this unusual period, we have been exposed to a large number of online events, and it was more difficult to encourage students and researchers to participate in the event in this modality,” says the chairman. “Even so, I believe we had great success, with around 1,100 participants in the event,” he conveys. “During the conference I had the opportunity to talk with several colleagues, and everyone stated that the result was much better than expected for an online event,” says Dalpian.

### An intense week

Finally, the XIX B-MRS Meeting + IUMRS ICEM was held in virtual format between the end of August and the beginning of September 2021, with an intense and varied schedule. The event took place live on Aptor’s Eventweb platform, based on the virtual rooms on the Zoom platform. During the hours with more activity, 15 virtual rooms worked simultaneously.

The axis of the program included the 10 plenary sessions with lectures by world-renowned scientists, as well as the symposia’s oral and poster sessions. There were 23 symposia on materials research topics, proposed and organized by 110 researchers from 15 countries, in addition to the symposium of the B-MRS University Chapters (UCs), which this year was about scientific entrepreneurship. Approximately 1,000 works were presented within the symposia by students of all levels and professionals (postdocs, professors and researchers from universities, research institutes and companies).

All presentations took place at scheduled times, with real-time interactions between speakers and presenters and their audiences. In the poster sessions, PDFs and audio files were available to visitors throughout the event, but the presenters were in attendance at the appropriate times to interact with interested parties via chat or video call.

The symposia covered a wide range of topics in Materials Science and Technology, from design to applications, comprising synthesis, manufacture, modification and characterization of materials. There were symposia on nanomaterials, conducting polymers, hydrogels, hybrid materials and nanocomposites, metal oxides, electro-ceramics, biomaterials, superconductors and quantum materials, among others. Regarding applications, the presentations addressed energy harvesting, conversion and storage, oil and gas industry, decontamination, dentistry and medicine, electronics, and photonics. Advances in the toxicology of nanomaterials and their respective regulation were also discussed.

“The event’s highlight was definitely the quality of the works presented,” says Professor Dalpian, adding that “we were able to watch, for example, really high-level presentations by undergraduate students.”

The event also featured 9 technical webinars on techniques, instruments and tools for research and education, and an exhibition with 16 virtual stands of products, services and inputs for research. Another highlight was the workshops that were offered, at no extra cost, to the event’s participants. On Sunday afternoon, August 29th, the traditional “School of Young Researchers,” was held, given by Professor Valtencir Zucolotto (IFSC-USP, Brazil), to help students and young researchers develop some necessary skills to carry out high-impact science. On Monday night, Professor Eduardo G. Ciapina’s (UNESP, Brazil) addressed the most important aspects for preparing and presenting a scientific work. About 100 people participated in each of the workshops.



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The program also had a presentation by the Brazil-Argentina Nanotechnology Center (CBAN) about opportunities for bilateral cooperation, and a panel discussion that brought together speakers from academia, industry and research funding to discuss the application of perovskites in the photovoltaic industry. In addition, on Thursday night, the event hosted a panel discussion on the underrepresentation of women in science aggravated by race and geographic distribution, and the impacts of the pandemic on that reality. The discussion, with broad public participation, was based on short presentations by four female scientists from Argentina, Brazil and the United States, with outstanding scientific careers and active in gender and race issues. The panel was broadcast in a virtual room at the event and, simultaneously, on B-MRS's YouTube, where the recording is still available.

### Opening and plenary lectures

The opening, held on Monday morning, August 30th, featured short speeches by Professor Monica Cotta (President of B-MRS), Professor Rodrigo Martins (President of IUMRS), Paulo César Rezende de Carvalho Alvim (Secretary of Entrepreneurship and Innovation at the Brazilian Ministry of Science, Technology and Innovation) and the general coordinator of the event, Professor Gustavo Dalpian.

In the words of the members of the opening virtual table, those who died as a result of the Covid-19 pandemic were remembered, as well as the role of science and innovation in the pandemic and its importance in increasing the quality of life of human beings. Over 300 people virtually attended the ceremony.

Next, the traditional Memorial Lecture Joaquim da Costa Ribeiro was held. This special lecture was created by B-MRS to honor the pioneer of Materials research in Brazil and, at the same time, to distinguish a senior Brazilian researcher for his or her scientific trajectory. In this event edition, the distinction was granted to Professor Cid de Araújo (UFPE), pioneer of Brazilian Non-Linear Optics. After commenting on Costa Ribeiro's contributions to Brazilian research and to the organization of the national scientific system, the speaker presented the plasmonic nanocomposites that he uses in Non-Linear Optics experiments. These materials are formed by glasses or colloids with metallic nanoparticles, which act as nanoantennas that significantly increase some optical properties of the material.

The following plenary was given by Professor Thuc-Quyen Nguyen, from the University of California at Santa Barbara (USA), where she directs the Center for Polymers and Organic Solids. The researcher spoke about organic semiconductors, a family of materials that combine the lightness, flexibility and semi-transparency of polymers with the electronic properties of semiconductors. She showed that these materials can be easily processed into films and used in solar cells integrated into building façades and interiors; in portable, wearable devices, as well as in light detectors for night vision and healthcare applications.

On Tuesday, the morning plenary was given by one of the fathers of iron-based superconductors: Professor Hideo Hosono, from the Tokyo Institute of Technology (Japan), whose h index is 141. The scientist explained why iron was considered the worst enemy of superconductivity and how this idea was overturned. He also presented the advances made over the last 15 years in the synthesis, processing and characterization of these materials.

In the afternoon, the topic of the plenary was the discovery of functional materials, which was done for thousands of years based on trial and error. Professor Alex Zunger, from the University of

Colorado Boulder (USA), showed that recently, theoretical computational methods have allowed us to further accelerate the discovery of useful materials for humanity. In this context, he presented the Inverse Design, a paradigm based on collaboration between theoretical and experimental scientists, to determine what functionalities are needed for a given application and, based on that, use computational tools to find materials that meet these needs. Zunger, who has an h-index of 151, is the founder of a center and a research group on inverse design in the United States.

Wednesday opened with the plenary of Professor Paula Vilarinho (University of Aveiro, Portugal), deputy director of the largest Portuguese institute in Materials Science and Engineering, CICECO. According to Professor Vilarinho, in a "smart" world where people and objects are increasingly connected via the internet, sensors and actuators play a critical role, and these devices need piezoelectric materials. At the same time, the planet is demanding for materials and sustainable technologies, such as the KNN-based piezoelectric materials (compounds of potassium, sodium and niobium with a perovskite structure) presented by the speaker.

During the afternoon plenary, in a ceremony full of emotion, Professor Edson Leite (UFSCar, Brazil), scientific director of Brazilian National Nanotechnology Laboratory, received the first José Arana Varela Award, created by B-MRS in honor this great Brazilian scientist and former B-MRS president, who died in 2016. Leite was Varela's first doctoral student and considers him his "scientific father." Professor Elson Longo also participated as Varela and Leite's very good friend and collaborator. In the lecture, Edson Leite spoke about colloidal nanocrystals, which, despite having an obviously crystalline structure, have different degrees of structural disorder that impact their properties. He described the challenges involved in the characterization of nanocrystals and the advances achieved, mainly through the ePDF technique.

The seventh plenary of the event was given by Luisa Torsi, Professor at the University of Bari (Italy), and also committed to the role of model for younger women scientists. She presented sensors capable of detecting a single molecule on a micrometer surface (something similar to finding a drop of water in a lake). The researcher and her team are dedicating efforts to develop these devices that can help diagnose various diseases in early stages, for example pancreatic cancer, thus enabling treatment and cure.

In the following plenary, Professor Sergio Rezende (UFPE, Brazil) shared his broad and deep knowledge in the field of Spintronics, which explores the possibilities of an electron spin to generate new functionalities in materials. He presented the main discoveries that advanced Spintronics from the 1980s onwards, thus opening technological frontiers in Electronics. Rezende has developed a very productive and distinguished trajectory both as a researcher of magnetic materials and as STI manager (he was Brazil's Minister of Science and Technology, among many other positions).

Every problem is a thermal problem, said Professor Tao Deng (Shanghai Jiaotong University, China) at the event's penultimate plenary. Deng has been committed to developing bio-inspired materials that make thermal processes more efficient. One of the contributions he presented was the development of plasmonic films, inspired by human skin, which allow heating and evaporating the surface of water bodies using sunlight, with applications in water desalination and sterilization, generation of electricity and hydrogen, and energy harvesting.

At the closing plenary, John Rogers (Northwestern University, USA) showed devices that can be comfortably worn on the skin of

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patients and athletes to monitor various indicators, mainly through the collection and analysis of sweat. This collection is done through tiny channels developed with microfluidic technology. Some of these devices are small clinical laboratories. They can prevent, for example, children with health problems from having to go to hospital or having more invasive or uncomfortable procedures. Rogers, whose h-index is 191, is a co-inventor on more than 100 patents and a co-founder of several startups.

The event's plenary sessions had an average audience of 160 people and received several questions from the audience at the end, which were sent via chat and formulated by the chairs of the lectures. According to the event's chair, "the plenary lectures brought a lot of information and originated discussions and questions from the community. This is, without a doubt, the result we planned to reap."

### Closing and awards

In the closing session, held around noon on Friday, September 3, the meeting chair highlighted the quality of the presentations and shared the event's data, in addition to thanking everyone who made the event possible: his colleagues on the organizing committee, Aptor and B-MRS team, B-MRS and IUMRS boards, symposium organizers, volunteers, participants and sponsors.

The chairman of the XIX B-MRS Meeting then gave the floor to the chairlady of the XX B-MRS Meeting: Professor Lucimara Stolz Roman (UFPR, Brazil), who coordinates the organization of next year's event with Professor Marcela Mohallen Oliveira (UTFPR, Brazil). Lucimara made a long-awaited announcement: the next B-MRS Meeting will be held in Foz do Iguaçu, at the Rafain Hotel, from 25 to 29 September 2022, resuming the proposal that was initially announced in 2018. The chairlady invited the community to submit proposals for the symposium to organize the event, in the call that is open until October 31st.

Finally, after the words of the presidents of B-MRS and IUMRS, the Student Awards ceremony began, encompassing the Bernhard Gross Awards, given by B-MRS to the best oral presentation and best poster presentation of each symposium, and the awards from the publishers of the American Chemical Society (ACS) and the Royal Society of Chemistry (RSC). ACS gave cash prizes to the 5 best posters and 5 best oral presentations of the entire event, and RSC gave book vouchers to the 6 best works of the event. In total, 51 awards were announced at the ceremony.

The winners were selected based on the evaluation of all the works that applied by sending an extended abstract. The organizers of each symposium were responsible for classifying the candidates according to a series of criteria and then defining one finalist for the oral presentation and another for the poster presentation category. These finalists comprised the list of Bernhard Gross Award winners. ACS and RSC award winners were chosen from this list by the event's awards committee based on the classification score they received. The complete list of award-winning works is available on the B-MRS website.

"Despite being completely online, due to the pandemic, our event maintained its usual quality, with inspiring plenary sessions and extremely motivated presentations by our researchers and students," says Professor Mônica Cotta, president of B-MRS. "We looked for various formats, with discussion panels about new technologies and about the underrepresentation of gender in science." She highlights that "our UCs dazzled us with an extremely innovative workshop, and we could even feel the emotion of the many awards on the small screen!!!" concluding that "In a moment of crisis, we came together to be stronger."



## Recent Events

- **IUMRS-ICA 2021** (22nd) was organized by MRS Korea, at the Jeju International Convention Center (ICC) during 3-8 Oct. 2021. The meeting has an online component.
- **EMRS 2021 Fall Meeting** took place, in virtual format, from 20th to 23rd September 2021.
- **IUMRS-ICEM 2020** was postponed to 2021, and was held online from 30 Aug. to 3 Sept. 2021, together with the XIX Brazilian MRS meeting. See report on pages 3-5.
- **International Conference on Materials for Humanity (MH21)**, a virtual conference organized by MRS Singapore, was held during 6-9 July 2021. With 8 plenary lectures, 18 symposia organized into 6 themes, MH21 emphasized the role of materials innovation and deployment in tackling global challenges in health, climate change and the environment. Over 800 participants from various parts of the world attended the 4-day events.
- **AAMS 2021** The first Asia Advanced Materials Summit (AAMS) was held in Shanghai, China, from 8 to 10 March 2021. The inaugural meeting was organized by IUMRS Regional Office in Asia, together with some Chinese organizations.
- **XXIX International Materials Research Congress**, the annual joint conference of MRS Mexico and MRS (USA) was held during 15-18 August, 2021 in Cancun, Mexico.



## Upcoming Events

- **International Conference on Frontier Materials** will be organized by IUMRS Regional Office in Asia in Zhuhai, China, from 28 March to 1 April, 2022. Web site: <http://www.icfm.org.cn/>.
- **IUMRS-ICYRAM 2022** will be organized by MRS Japan and will be held during 3 - 6 August, 2022 in Fukuoka, Japan. Conference web site: <https://icyram2022.wixsite.com/official-site>. **IUMRS-ICYRAM 2020** was planned in Warsaw in 2020, but cancelled.
- MRS Singapore is organising **the 2nd International Conference on Materials for Humanity (MH 22)** during 19-21 September, 2022 at University Town, National University of Singapore, in hybrid mode. Conference web site: [mh22-mrs.org.sg](http://mh22-mrs.org.sg).
- **IUMRS-ICAM 2023 & ICMAT 2023**. The next ICMAT meeting will be held from 26 to 30 June 2023 in Singapore, organized by MRS Singapore, jointly with IUMRS-ICAM 2023. Due to Covid-19, ICMAT 2021 was postponed to 2022 but eventually cancelled.
- **IUMRS-ICAM 2021**, was planned to be organized in Cancun, Mexico in 2021 but postponed to August 29-30, 2022. Details will be announced by MRS Mexico soon.
- **IUMRS-ICA 2022** will be held in Bangalore, India, during 5-10 December, 2022. Details will be announced by MRS India soon.
- **IUMRS-ICEM 2023** will be organized by the Asian Regional Office instead of C-MRS. Details will be announced soon.