

Chapter 4 Present Adhering Bodies

4.1 List of present IUMRS adhering bodies



African Materials Research Society



Australian Materials Research Society (A-MRS)



Brazil Materials Research Society (B-MRS)



Chinese Material Research Society (C-MRS)



European Materials Research Society (E-MRS)



Materials Research Society of India (MRS-I)



Materials Research Society of Indonesia (MRS-Ina)



Materials Research Society of Japan (MRS-J)



International Union of
Materials Research Society (IUMRS)



Materials Research Society of Korea (MRS-Korea)



Materials Research Society of Mexico (MRS-Mexico)



Materials Research Society of Russia (MRS-R)



Materials Research Society of Singapore (MRS-S)



Materials Research Society of Taiwan (MRS-T)

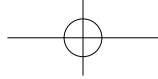


Materials Research Society of Thailand (MRS-Thailand)

4.2 African-MRS

4.2.1 List of A-MRS Leadership

Period	President	Vice President
2002-2003	Name: Prof AboubakerBeye Affiliation: Cheikh Anta Diop University, Senegal	
2003-2005	Name: Prof. Yunus Ballim Affiliation: University of the Witwatersrand, South Africa	
2005-2007	Name: Prof Josepha Tesha Affiliation: University of Dar-es-Salam, Tanzania	
2007-2009	Name: Prof Olusegun Adewoye Affiliation: Nigerian Agency of Science and Engineering Infrastructure, Nigeria	
2009- 2011	Name: Prof Mona Marei Affiliation: University of Alexandria, Egypt	
2011-2013	Name: Dr Joe Zimba Affiliation: Salene Technologies, South Africa	
2013-2017	Name: Prof Wole Soboyejo Affiliation: Worcester Polytechnic Institute/African University of Science and Technology, United States of America/Nigeria	
2017- 2019	Name: Prof. Hulda Swai Affiliation: Nelson Mandela African Institution of Science and Technology (NMAIST), Tanzania	Name: Dr Samuel Chigome Affiliation: Botswana Institute for Technology Research and Innovation (BITRI), Botswana
2019-	Name:Dr Samuel Chigome Affiliation: Botswana Institute for Technology Research and Innovation (BITRI), Botswana	



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4.2.2 History of the African Materials Research Society

It has been almost nineteen years since the idea of the African Materials Research Society (AMRS) emerged in the year 2000 at the US/ Africa Materials Workshop that was held at the Farm Inn in Pretoria, South Africa. The Pretoria Workshop, which was partly inspired by President Bill Clinton's visit to Africa in 1998, was organized by Dr. Adrian DeGraef of the U.S. National Science Foundation (NSF) and Dr. Jill Sawyer of South Africa's National Research Foundation (NRF).

The Pretoria Workshop brought together 70 scientists, engineers and policymakers from Africa and the U.S. to discuss possible areas for collaborations in materials research and education. As a scribe at the workshop in Pretoria, it was my privilege to write down many of the ideas that were suggested for future Africa-Africa and US-Africa collaborations in materials research and education. These guided future activities to foster collaborations between U.S. and African scientists. They also stimulated the efforts to establish the African Materials Research Society (AMRS) within the framework of the International Union of Materials Research (IUMRS).

Following the Pretoria Workshop, Prof. Aboubaker Beye of the Cheikh Anta Diop University organized the first conference of the African Materials Research Society (AMRS) in 2002. The conference, which was held in Dakar, Senegal, brought together African Materials Scientists, such as Prof. Frank Nabaro of Wits University, South Africa, with African and U.S. scientists, engineers and policymakers that were interested in developing an enduring structure for the AMRS. The Dakar Workshop included some hotly contested sessions in which, a number of participants argued strongly for the inclusion of the African governments in the operations and decision-making processes of the AMRS. Ultimately, the majority of the participants voted for an AMRS that was independent of government, but a collaborator with government in appropriate areas.

Subsequently, Dr. Adriaan de Graaf (Mathematics and Physical Sciences Division of NSF) and Dr. Elbert Marsh (Engineering Division of NSF) sponsored a series of U.S./Africa Materials Workshops in San Diego and Puerto Rico. These were designed to bring together researchers from Africa, Latin America and the U.S. to develop thematic areas for future collaborations. They resulted in the identification of research opportunities in the areas of: thin films and heterogeneous materials, with applications to sustainable buildings, solar energy, water purification and biomaterials. They also resulted ultimately in the formation of the U.S./Africa Materials Institute (USAMI), the Americas Program, and a US/Egypt Program that were all initiated at Princeton University in 2003.

The above programs brought together teams of African, U.S. and Latin American researchers to explore the development of a triangular network of interactions between the US, Latin America and Africa. The network included the late Professor Olusegun Adewoye of Nigeria, the late Prof. Fawzy Hammad of Egypt, Prof. Frank Kavishe (a Tanzanian that was then based in Kenya), Dr. Joe Zimba of Zimbabwe and Prof. Holmer Savastano of Brazil. This first group initiated collaborative research in areas that were identified at earlier workshops. They also identified other researchers that were later invited to participate in the emerging collaborations. These collaborations resulted in the publication of more than 100 papers in peer-reviewed journals.

Many of those involved in the early workshops volunteered to organize the early conference of the AMRS. The first AMRS conference was organized by Prof. Aboubaker Beye Dakar, Senegal in 2002, while the second AMRS conference was organized by Prof. Yunus Ballim in Johannesburg, South Africa in 2003. This was followed by biennial AMRS conferences in Marakesh, Morocco, in 2005 (organized by Prof. Abdelazeez Jazouli); Dar-es- Salaam, Tanzania in 2007 (organized by Prof. Joe Tesha); Abuja, Nigeria (organized by the late Prof. Olusegun Adewoye); Victoria Falls, Zimbabwe in 2011 (organized by Dr. Francis Gudyanga, Dr. Joe Zimba and Prof. Eric Garfunkel), Addis Ababa, Ethiopia in 2013 (organized by Prof. Yohannes Teketel and Prof. Eric Garfunkel), Accra, Ghana in 2015 (organized by Dr. David Dodoo-Arhin and Prof. Eric Garfunkel), Gaborone, Botswana in 2017 (organized by Dr. Samuel Chigome and Prof. Eric Garfunkel) Tanzania 2019 (Organized by Prof Hulda Swai with the assistance of the AMRS Secretariat headed by Dr Samuel Chigome and the AMRS Board.



4.2.3 Establishment of a Permanent of the AMRS Secretariat/Headquarters in Botswana

In 2017, his Excellency the President of the Republic of Botswana, Dr. Eric Keabetswe Mokgweetsi Masisi officially opened the 9th International Conference of the African Materials Research Society that was held in Gaborone, Botswana 9-14th December 2017. This showed the commitment of the government of Botswana to Materials Research, which serves as an example for other African countries. The commitment of the government of Botswana to Materials Research is also demonstrated by the establishment of the Botswana Institute for Technology Research and Innovation (BITRI) Centre for Materials Science <http://www.bitri.co.bw/cms/>. Therefore, it did not come as a surprise that with such support from the government, AMRS2017 was a very successful conference. Consequently, the AMRS Board appointed Botswana as the home of the AMRS secretariat hosted at BITRI www.bitri.co.bw. It is also in that year that Dr Samuel Chigome was appointed to set-up the secretariat office which also leads to him being appointed as the first Vice President of AMRS. In order for the Secretariat office to function, Dr Samuel Chigome appointed the first AMRS Administrative Officer, Miss Khumo Butale. Together, they have worked tirelessly to set-up the first AMRS website <https://africanmrs.net/> as well as to publish the first AMRS newsletter https://africanmrs.net/wp-content/uploads/2019/09/AMRS_Newsletter_Issue1-2019-1.pdf among other things. At the end of AMRS2019, Dr Samuel Chigome elevated to the position of President of AMRS so that he could drive the society to greater heights.

The main objectives of the secretariat are to carry out administrative tasks aimed at achieving the following objectives:

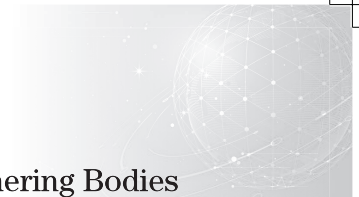
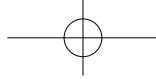
1. To ensure the involvement and coordinated participation of all 54 African countries in the activities of AMRS.
2. To establish a sustainable source of funds for activities of AMRS.

In order to function effectively and cover the whole of Africa, through the newly established secretariat office in Botswana, regional representatives who represent the five regions of Africa were appointed to work closely with the head of secretariat and the AMRS Administrative Officer.

Name	Country	African Region
Mr. Tatenda Crispen Madzokere	Zimbabwe	Southern Africa
Dr. Josepha Tenda Foba	Cameroon	Central Africa
Prof. Said Kenai	Algeria	Northern Africa
Dr. Benjamin Agyei-Tuffour	Ghana	West Africa
Dr. Dickson Andala	Kenya	East Africa

4.2.4 The overall objectives of AMRS are:

1. To promote excellence in all aspects of materials research in Africa.
2. To ensure that materials research contributes significantly to the various national strategies for social equity and poverty alleviation in a constructive and sustainable manner.
3. To work closely with governments and state structures to develop appropriate policy and support for materials research and development.
4. To build a network of materials researchers which encourages multi-national and multi-disciplinary collaboration in materials research – both within Africa and between African researchers and the rest of the world.
5. To identify and foster specific areas of materials research as appropriate in the different countries or regions in Africa.
6. To promote information and resource sharing, exchange and development in materials science.
7. To regularly host conferences, symposia and conferences with a view to promoting dialogue between materials researchers within Africa as well as with researchers outside the continent.



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8. To encourage downstream materials manufacturing and value-adding activities in all countries in Africa.
9. To strengthen the facilities and other resources for materials research in higher education sectors

4.2.5 Brief Introduction of AMRS Past Biennial Conferences

1st Conference

Date: December 0-17th, 2002
Organizing institution: University of Cheikh Anta Diop
Venue: Ngor Diaama Hotel, Dakar, Senegal
Chair: Prof. Aboubaker Beye
Scale: 120

2nd Conference

Date: December 8-11th, 2003
Organizing institution: University of the Witwatersrand
Venue: University of the Witwatersrand, Johannesburg, South Africa
Chair: Prof. Yunus Ballim, Vice chair: Prof. Arthur Avery, Secretary: Dr. Herbert Uzoegbo
Theme: Building partnerships for excellence in materials research in Africa
Scale: 184

3rd Conference

Date: December 7-15th, 2005
Organizing institution: University of Hassan II Mohammedi
Venue: Hotel Sangho, Marrakesh, Morocco
Chair: Prof. Abdelaziz El Jazouli
Scale: 300

4th Conference

Date: December 10-14th, 2007
Organizing institution: University of Dar es Salaam
Venue: University of Dar es Salaam, Dar es Salaam, Tanzania
Chair: Prof. J.V Tesha; Secretary: J. Buchweshaija
Theme: Cementing in Materials Research in Africa

5th Conference

Date: December 14-18th, 2009
Venue: Abuja Sheraton Hotel Towers, Maitama, Abuja, Nigeria
Chair: Prof. O.O. Adewoye,; Vice Chair: Dr. A.Y. Fasasi,
Secretary: Dr. B.B. Babatope
Theme: Nanotechnology, Advanced Materials and Manufacturing Technology for Africa

6th Conference

Date: December 11-16th, 2011
Organizing institution: Ministry of Science and Technology Development (Zimbabwe)
Venue: Elephant Hills Hotel, Victoria Falls
Chair: Dr. Joseph Zimba, Secretary: Prof. Francis Gudyanga
Scale: 300

7th Conference

Date: December 8-13th, 2013



International Union of
Materials Research Society (IUMRS)

Organizing institution: University of Addis Ababa

Venue: African Union Conference Center, Addis Ababa, Ethiopia

Chair: Prof. Teketel Yohannes

Theme: Challenges and future priorities for the field, with a focus on how materials research can aid African development

Scale: 250

8th Conference

Date: December 6-11, 2015

Organizing institution: University of Ghana

Venue: Mensvic Grande Hotel, Accra, Ghana

Chair: Prof. Boateng Onwona-Agyeman,

Vice chair: David Dodoo-Arhin,

Secretary: Dr. Benjamin Agyei-Tuffour

Theme: Transforming African economies through innovative materials development

Scale: 350

9th Conference

Date: December 11-14th, 2017

Organizing institution: Botswana Institute for Technology Research and Innovation

Venue: Gaborone International Conference Centre, Gaborone, Botswana

Chair: Prof. Nelson Torto;

Vice chair: Prof. Asare Nkansah

Secretary: Dr. Samuel Chigome

Theme: Addressing Africa's challenges through materials development

Scale: 535

10th Conference

Date: December 10-13th, 2019

Venue: NMAIST, Arusha, Tanzania

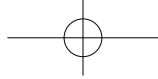
Chair: Prof. Hulda Swai

Vice chair: Prof. Verdiana Masanja

Secretary: Dr. Francis Moyo

Theme: African materials for African development

Scale: 336



4.3 Australian-MRS

4.3.1 History and background



Professor Jim Williams

The Australian Materials Research Society(A-MRS) was a founding adhering body of IUMRS in 1991. However, A-MRS began as an entity some 4 years earlier after a past President of MRS, Woody White, requested that the Australian materials community consider establishing such a society. Extensive discussions with existing materials-related professional societies in Australia indicated that they would not support a new society and would actively lobby their members not to join A-MRS. Thus, it was decided that the A-MRS entity should not be a separate society in Australia but an umbrella organization that coordinated materials activities across around 10 national materials-related societies. This meant that A-MRS did not have a membership in its own right but was linked to members of these existing societies, around 2000 scientists with materials science or engineering expertise. Although this situation was not ideal, it did allow A-MRS to establish itself in the Australian research environment, for example by taking leadership in sponsoring interdisciplinary materials conferences and workshops between two or more of the national materials societies, as well as providing a conduit between the local materials-related societies and IUMRS. A-MRS also played a leading role in fostering networking across Australia, between materials scientists and students, as well as industry. It lobbied the Australian government to provide seed funding to establish materials networks, and this resulted in national networks in both research (advanced materials and nanotechnology) and industry (linking industry with the research community) that all received direct government seed funding until around 2010. In 2013 the Australian Academy of Science reviewed its National Committees of Science and established a new committee, the National Committee of Materials Science and Engineering (NCMSE). The Academy consulted with A-MRS as to the best way to establish this committee and link with both the Australian materials community and IUMRS. It was decided that the NCMSE committee and the A-MRS executive committee should, wherever possible, have a common membership and the Chair of NCMSE should be the President of A-MRS. Both the NCMSE and A-MRS committees have a New Zealand representative to link with the New Zealand materials community. These arrangements have worked extremely well since that time and have resulted in A-MRS becoming a more professional entity with a revamped set of Statutes and Bylaws. A-MRS now has a strong voice in the Australian Academy of Science and hence a more direct line of communication with the government. A-MRS remains the conduit to IUMRS but the Academy pays the membership dues to IUMRS, as it does for all International Unions. Recently a decision was made by both the NCMSE and A-MRS to establish a register of all materials scientists and engineers in Australia, which could be considered as a de facto list of A-MRS members. The following sections provide some highlights within A-MRS over the past 30 years.

4.3.2 Research and industry networks initiated by A-MRS



The ARNAM young researcher workshop delegates in 2010

In 1998, A-MRS assembled an Australian delegation to attend an IUMRS workshop on networking between research, industry and government agencies. It was held at Turtle Bay, Hawaii. The Australian delegation included two policy officers from the Australian Federal government Department of Science and Industry. These officers were so impressed by the workshop networking events and outcomes that they worked with A-MRS to seek government funding for a research-industry network across Australia. This proposal was successful and a 'Future Materials



International Union of
Materials Research Society (IUMRS)



ICONN 2006 conference delegates.

established.

In 2003, the Australian Research Council, responding to a proposal from A-MRS leaders and other local societies, established a research network program and called for applications from the research community. A-MRS initiated two proposals: 'The Australian Research Network for Advanced Materials' (ARNAM) and 'The Australian Research Council Nanoscience and Nanotechnology Network' (ANN). The focus of both proposals was to: provide networking opportunities for materials researchers across the country and to enhance career and other opportunities for materials students and early career researchers across Australia. In late 2004, both network proposals were funded by the Federal Government, the convener of ARNAM Jim Williams and convener ANN, C. Jagadish, both leaders of A-MRS.

These networks have been a vital component of A-MRS operation since this time. Both networks established a database of profiles of materials researchers and institutions across the country in advanced materials (ARNAM) and nanotechnology (ANN), as well as a comprehensive compendium of materials research facilities. These databases have provided an essential resource for enhancing research collaboration across the country, particularly involving young researchers and students. Both networks have run a number of workshops and conferences, such as the biennial ARNAM young researcher workshops that involved grant writing mentorship and interactions with key industries, as well as the biennial conference founded by Jagadish, the International Conference on Nanoscience and Nanotechnology (ICONN) run by ANN.

These network activities have provided substantial career opportunities for young researchers. ARNAM and ANN have also funded students and young researchers to visit national and international laboratories, as well as conferences, including 3 IUMRS conferences, as indicated below. Government funding for the networks ended in 2012 but ANN has managed to secure institutional funding to continue operation of this network until the present time.

4.3.3 International workshops sponsored by A-MRS

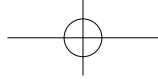


US-Australia Nanotechnology workshop in 2006.

Network' was established in 2002. It has provided an important link between a number of industry associations in Australia and the materials research community. A-MRS was a proactive sponsor of this network, which ran a number of interdisciplinary industry-research events and workshops. These led to improved collaboration and interaction between industry and research communities. The Future Materials Network operated for 12 years and wound up in 2014 when enduring linkages between research and industry had been es-

Several international workshops have been held over the past 20 years. Key examples are the following: an Australian-US workshop on Nanotechnology was held in Melbourne in early 2006 and focused on opportunities for collaboration, industry involvement, including risks of the technology. It led to collaborative opportunities for researchers in both countries and bilateral funding opportunities also resulted. A follow up workshop was held in Washington in 2009.

An Australian-India workshop on ad-



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Australia-India workshop 2008



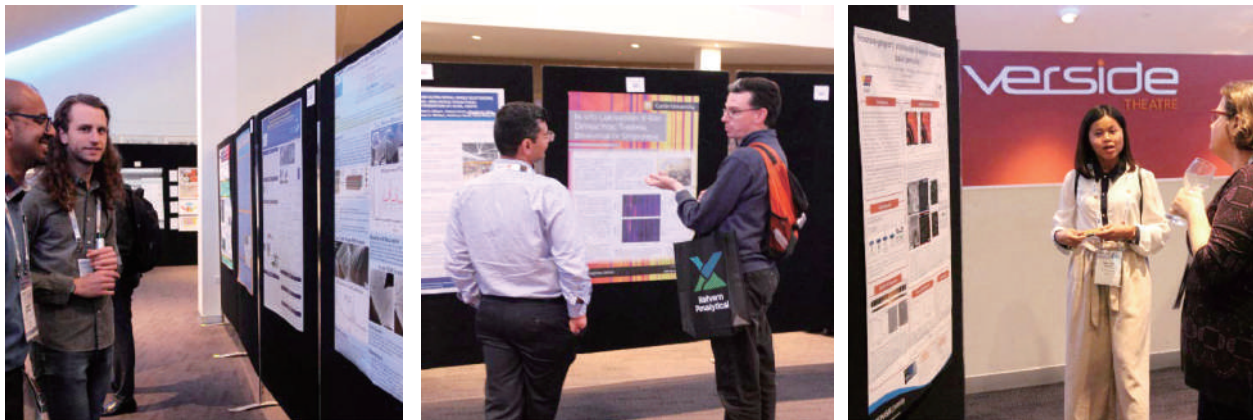
EU-Australia workshop in Nanotechnology 2010

vanced materials and nanoscience was held in Canberra in 2008 to promote research in both countries, as well as opportunities for bilateral collaboration supported by funding initiatives of both countries. A follow up meeting was held in Delhi in 2012. This initiative led to the Federal government funding of a bilateral research and collaboration scheme between India and Australia.

An EU-Australian workshop on nanotechnology was held in Sydney in 2010 to showcase research across Europe and Australia and explore collaborative opportunities. This resulted in a follow up meeting in Brussels, where research collaboration between the EU Framework programs and Australian research was a theme. This initiative directly resulted in Australian researchers being admitted to several EU Framework projects over a 5-year period.

4.3.4 IUMRS sponsored conferences run by A-MRS

IUMRS-ICEM 2008 was held in Sydney (under the Chairmanship of Jim Williams) and attracted around 1000 delegates who participated in 19 topical symposia, two Forums on Energy and Industry, and 3 events for international students run jointly with ARNAM and ANN. The five plenary speakers included one Nobel Laureate, Harry Kroto, and Millie Dresselhaus from MIT. Both of these speakers contributed very actively in the student activities at the conference. The Energy Forum was organized jointly by A-MRS and MRS and had a focus on climate change and renewable energy solutions. The Industry Forum focused on new industries involving advanced materials and included speakers from General Motors, One Solar, and major start up companies from Europe and Asia.



Poster sessions at IUMRS-ICA 2019



IUMRS-ICYRAM 2018 (chair: Drew Evans) was held in Adelaide and attracted close to 200 participants, almost entirely young researchers from Australia and more than 25 countries. The IUMRS Young Researcher award was presented at the conference by BVR Chowdari, MRS Singapore President, to Andrea Alù (City University of New York).

IUMRS-ICA 2019 (Co-chairs: Julian Gale and Lan Fu) was held in Perth and attracted around 500 participants from 29 countries, including over 130 students and young researchers. There were 7 materials themes and 38 sub-themes (or symposia). Over 30 of the student and young researcher attendees were financially supported by the Australian Academy of Science, ANN, an industry sponsor and MRS Singapore. About half of the young participants supported to attend were from outside of Australia.

4.3.5 Initiatives of A-MRS over the past 5 years

In 2013, the Australian Academy of Science decided to establish a National Committee for Materials Science and Engineering (NCMSE), one of 22 National Committees of the Academy. Since many of the aims of this committee overlapped with the goals of A-MRS, such as connecting with the materials community across the country, liaising with international science unions, mounting events for young scientists and supporting the materials community in proposals to government, it was decided that all executive members of A-MRS would be members of the NCMSE. This arrangement has worked very well and A-MRS has coordinated the timing of changes to its executive offers with new members of NCMSE, including a common A-MRS President and Chair of the committee. At the present time Jo Etheridge occupies these positions. Both entities have worked together on several initiatives including support for attendees at IUMRS and A-MRS conferences and strategic plans submitted to government. Indeed, an early success was the production of a Nanotechnology strategic plan in 2013, with input from the entire materials community and presented to the Federal government, that led to continuing and new infrastructure funding for nanotechnology, including the Australian Nanofabrication Facility (ANFF) which is distributed across the country and is an important resource for materials researchers.

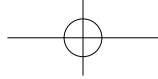
In terms of young researchers, the Academy of Science has a very active Early and Mid-Career Researcher Forum with over 2000 members, and a few hundred of these are materials researchers. The NCMSE and A-MRS have effectively engaged with this group. For example, in 2016 young researchers organized a national workshop on 'Advanced Materials for the 21st Century' that was an outstanding success and resulted in many new collaborations amongst young materials researchers across the country. EMRS was so impressed with this workshop that they organized a young researcher workshop based on its format at the 2017 World Materials Summit meeting in Strasbourg, France.

Over the past 10 or more years, A-MRS has been active in organising joint activities and symposia at IUMRS meetings with other IUMRS Adhering Bodies, most notably with MRS, MRS Japan, MRS Singapore and MRS India.

A current initiative of both the Academy's NCMSE and A-MRS is to compile a register of all materials researchers in the country that will become a de facto membership list for A-MRS, rather than the current situation of connecting with the community through other professional materials societies in the country. It is envisaged that this will lead to a step function increase in the participation of materials researchers with A-MRS and an increase in its activities and influence with government. A particular focus is on support and career development for young researchers in terms of suitable events including interaction with key industry people. We believe that some of these initiatives could be suitably translated to other MRS societies and regions.

Finally, A-MRS congratulates IUMRS on its first 30 years and looks forward to a productive future and a continuing strong interaction with IUMRS.

By Jim Williams, Inaugural Past President of A-MRS, *February 2020.*



4.4 Brazil-MRS

Genesis and Short History of the Brazilian Materials Research Society (B-MRS)

(Sociedade Brasileira de Pesquisa em Materiais (SBPMat))

4.4.1 From Prof. Osvaldo N. Oliveira Jr, President of B-MRS (2016-2019), University of Sao Paulo, Sao Carlos Institute of Physics, Brazil



Prof. Osvaldo N.
Oliveira Jr

The Brazilian Materials Research Society (B-MRS) was created on June 26, 2001, in the “General Assembly of Constitution”, culminating a process of three years, which was conducted by Prof. Guillermo Solórzano (PUC-Rio) and a group of physicists, engineers, and chemists of several Brazilian institutions. The idea of establishing a Brazilian society for materials research had been discussed over the years, particularly in conferences related to materials science and engineering. Furthermore, the Brazilian community in the field of materials was growing fast, thus denoting the need for researchers to organize themselves into an inter-disciplinary scientific society.

The workshop “Frontiers in Materials Research, Technology and Education: a Workshop to Advance Pan-American Collaboration”, held in Rio de Janeiro in 1998 was emblematic in the history of the Brazilian materials community. This event was hosted by the Brazilian Council for Scientific Development (CNPq) and co-sponsored by the National Science Foundation (NSF) from the USA. The workshop itself was successful in reaching its objectives, but it became evident that the Brazilian materials community could no longer continue without a representative national scientific society.

Motivated to overcome this deficiency and contribute towards founding such a society, the co-chairs of the Pan-American Symposium, Guillermo Solórzano and Edgar Zantotto, decided to coordinate activities leading to creation of the “Sociedade Brasileira de Pesquisa em Materiais (SBPMat)”. They received support from CNPq and from the international community, namely IUMRS and MRS.

4.4.2 From Prof. Guillermo Solorzano, founding president of B-MRS (2001-2003)



Prof. Guillermo
Solorzano

In April, 1999, a mailing list of materials researchers provided by CNPq was used to issue a nation-wide invitation letter for researchers to participate in the making of a Brazilian Materials Research society. The letter described the format of this new society, genuinely interdisciplinary and extending the frontiers in materials research. It should represent the community in this country of continental size, and would count on the support from the Brazilian funding agency CNPq and from the international community. The response to this letter was overwhelmingly positive, judging from the numerous enthusiastic messages of support. In May, 1999, Prof. Solorzano and Prof. Zantotto were invited to extend this invitation at the “Encontro Nacional de Matéria Condensada” gathering around 1000 solid state physicists from Brazil. Their receptivity was equally positive. At the end of May a second circular informing about the rapid and positive evolution was released and by the following month a third message to a much wider mailing list was sent. In this third circular the main objectives of the new SBPMat were put forward, also including an electronic registration file to capture the scientific profile of individual members.

Several hundreds of pre-affiliations e-mails proposing interesting ideas were received. In order to incorporate and summarize innumerable suggestions, two main courses of action were adopted:

- a. National meetings in different parts of the country, to promote and discuss further the nature and mission of SBPMat,
- b. Constitution of an “Interdisciplinary Materials Committee” comprising high-level materials scientists in the Brazilian community willing to undertake this endeavor of establishing a National Materials Society.

The outcome of these meetings was highly positive, an indication of the enthusiasm of the community. The “In-



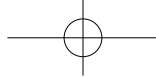
terdisciplinary Materials Committee” was established by leading scientists, representing diverse regions of the country and different materials research fields, composed of engineers, physicists and chemists, as follows:

- Aldo Craievich (USP)
- Aloísio Klein (UFSC)
- Angelo Padilha (USP)
- Edgar Zanotto (UFSCar)
- Elisa Baggio Saitovitch (CBPF)
- Elson Longo (UFSCar)
- Evando Mirra de Paula e Silva (CNPq)
- Fernanda Coutinho (IMA)
- Fernando Galembeck (UNICAMP)
- Fernando Lázaro (PUC-Rio)
- Guillermo Solórzano (PUC-Rio)
- José A. Eiras (UFSCar)
- José Arana Varela (UNESP)
- Luis Henrique de Almeida (UFRJ)
- Moni Behar (UFRGS)
- Renato Jardim (USP)
- Roberto Villas Bôas (CETEM)
- Sergio M. Rezende (UFPE)
- Wander Vasconcelos (UFMG)

During the following months of 2000 there were intense discussions on the structure of the bylaws, and in April 2001 SBPMat was founded in an assembly meeting in PUC- Rio de Janeiro, which allowed all members to vote online. The founding members reached 370 in number. In September 2002, the inaugural meeting of SBPMat took place in Rio de Janeiro, chaired by Guillermo Solórzano, with 6 symposia and about 400 participants. It is worth mentioning that the president and general secretary of IUMRS as well as the presidents of MRS and E-MRS attended this inaugural event. The following annual meetings increased in the number of symposia and participants. In 2009, the VIII SBPMat Meeting was held jointly with ICAM, with 28 symposia and 1800 participants from 48 countries. Since then, the B-MRS meetings have gathered 1.200 – 2.100 participants.

The following were the venues and corresponding annual meeting chairs:

- September 2003: in Rio de Janeiro, chaired by Guillermo Solórzano,
- September 2004, In Foz de Iguacu, chaired by Elson Longo
- September 2005, in Recife, chaired by Celso Melo
- September 2006, in Florianópolis, chaired by Aloisio Klein
- September 2007, in Natal, chaired by Dulce Melo
- September 2008, in Guarujá, chaired by Aldo Craievich and Reginaldo Muccillo
- September 2009, together with ICAM 2009, in Rio de Janeiro, chaired by Guillermo Solórzano and Elisa Saitovitch.
- October 2010, in Ouro Preto, chaired by Margareth de Andrade
- September 2011, in Gramado, chaired by Paulo Fitchner.
- September 2012, in Florianópolis, chaired by Aloisio Nelmo Klein and André Avelino Pasa.
- September - October 2013, in Campos do Jordão, chaired by José Alberto Giacometti and Julio Ricardo Sambrano.
- September - October 2014, in João Pessoa, chaired by Ieda Maria Garcia dos Santos.
- September - October 2015, in Rio de Janeiro, chaired by Marco Cremona and Fernando Lázaro Freire Junior.
- September 2016, in Campinas, chaired by Mônica Cotta and Ana Flávia Nogueira.



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- September 2017, in Gramado, chaired by Daniel Weibel.
 - September 2018, in Natal, chaired by Antonio Eduardo Martinelli.
 - September 2019, in Balneário Camboriú, chaired by Ivan Helmuth Bechtold and Hugo Gallardo.
 - August – September 2020, jointly with IUMRS ICEM, in Iguassu Falls, chaired by Gustavo Dalpian.
- During the 18 years of existence SBPMat executive committees had the following presidents:

- Guillermo Solórzano, founding president, 2001-2003
- Elson Longo, 2003-2005
- Fernando Lázaro, 2006-2009
- Jose Arana Varela, 2010-2011
- Roberto Mendonça Faria, 2012-2015
- Osvaldo N. Oliveira Jr, 2016 - 2019

Currently SBPMat membership reaches about 4.500 investigators and students from universities, research centers and industry.

In addition to the organization of the annual meeting and other international events, SBPMat has carried out other actions for the materials community and for the society in general. In 2012, the society launched the B-MRS newsletter, a monthly electronic bulletin dedicated to the dissemination and popularization of Materials Science and Technology, focusing on the work and people from Brazil. An English version was launched in 2014. The newsletter has more than 3.500 real readers. SBPMat also maintains accounts on Facebook, Twitter, LinkedIn, Slideshare and Instagram, having several thousands of followers. In 2014, the society created the SBPMat University Chapters program, which promotes regional nodes of the society, located in universities and conducted by teams of students. Nowadays, the program features 12 university chapters, covering all regions of the Brazilian territory. In the same year, the society prepared, in partnership with the Institute of Physics (IoP), the document Science Impact, an overview on the materials research in Brazil, in English, available in digital and printed version.

4.5 Chinese-MRS

30 Years of Chinese Materials Research Society with IUMRS

By Prof. Yafang Han



Prof. Yafang Han

It is my great pleasure to write this article for celebrating the 30th anniversary of IUMRS. By chance IUMRS and C-MRS have the same birthday year of 1991. I experienced the establishment of both organizations fortunately and have worked for C-MRS for more than 30 years as deputy general secretary (1991-1999), vice president (1999-2007) and general secretary (2007- present).

4.5.1 Introduction to Chinese Materials Research Society

C-MRS is one of the 8 founding members of IUMRS. In the late 1980s some Chinese materials scientists, Prof. Dongsheng Yan, Prof. Changxu Shi and Prof. Hengde Li, et al, joined the activities of other MRSs, such as MRS-USA, MRS-Japan, E-MRS, and therefore very good relationship between Chinese materials scientists and the scientists from other countries or areas had been established. Since C-MRS was formally established on May 16, 1991, C-MRS joined IUMRS nominally as Chinese Committee of IUMRS (CC-IUMRS) in 1989.

4.5.2 Headquarters office

The headquarters office of C-MRS from 1991 to 2002 was at the address of 7 Baishiqiao Road, Haidian District,



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Beijing (Provided free by Beijing Institute of Technology). There were only two part-time staffs at the beginning. In 2001 C-MRS bought two suites as office and the head office moved to the present address: Rm4101-4102, No. 62 Zizhuyuan Rd, Haidian District, Beijing in 2002. Now C-MRS head office has 12 full-time staffs and 4 part-time staffs, with the office area of 400 square meters.

4.5.3 History of C-MRS



First C-MRS member representative assembly in Beijing, May 16, 1991.
Prof. Hengde Li was elected as the first president, and served from 1991 to 1999

Chinese Materials Research Society (C-MRS) was established in May, 1991. The first member representative assembly was held at the campus of Beijing University of Technology, May 16th, 1991. In 1980s 46 world famous Chinese materials scientists from 27 Chinese academic societies, including Prof. Dongshen Yan, Prof. Changxu Shi, Prof. Hengde Li, Prof. Lanying Lin, Prof. Mingao Yan, Prof. T. Kou, et al, initiated to organize C-MRS, and they sent an application to Chinese Association of Science and Technology (CAST) in April 1990, and the application was approved in 1991. C-MRS became

a legal member of CAST in 1991 and the full member of CAST in the year of 2000. The first term(1991-1995) of the board of Governors had 118 members with 28 standing committee members.



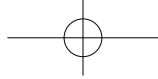
Group photo of C-MRS members representative assembly,
Nov. 13, 1999, Beijing.



Group photo of C-MRS members representative assembly,
April 18, 2016, Beijing

4.5.4 Presidents

The founding and first president of C-MRS was Prof. Hengde Li from Tsinghua University. Prof. Hengde Li served as the president from May 1991 to Nov. 1999. He made great contribution to C-MRS. During his term C-MRS faced big difficulty in financial situation since there was no support from government and companies, the only income was very limited membership fee. Under the 8 years' leadership of Prof. Li, great progress had been achieved: (1) He successfully organized many domestic and international conferences; (2) C-MRS made a profit of buying 2 suites for office use, and (3) C-MRS made outstanding contribution to IUMRS: Prof. Li was elected as the first vice president and president (1997-2000) of IUMRS, and he initiated IUMRS series conference, ICA, which started from 1993. The dedication of Prof. Li and other older generation scientists encouraged young scientists to work hard for the society voluntarily.



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The second president was Prof. Lian Zhou, director of Northwest Institute of Nonferrous Metals, who served from Dec.1999 to Sept., 2007. During his presidency term, IUMRS joined ICSU and became the full member of ICSU, and he initiated IUMRS series meeting. The World Materials Summit started from 2007. The third president was Prof. Boyun Huang, the president of Central South University. Prof. Boyun Huang served as president from Sept. 2007 to April 2016. During his term, Prof. Huang paid more attention to the academic exchange, and suggested that Chinese material conferences should be held once a year in difference cities, instead of Beijing only, which received very good results for the conference. Prof. Huang also paid close attention to the publication, supporting the journal Progress in Natural Science: Materials International (PNS:MI), finished the new edition of “Chinese Materials Dictionary”, 16series of books on “Advanced Materials”, and “Macropaedia -Materials Volume”, et al. The fourth president was Prof. Yuanyuan Li, the president of Jilin University, who served from April 2016 to June 2018. And the fifth president is Prof. Bingbo Wei, vice president of Northwest Polytechnical University, who has served since July 2018.



Prof. Hende Li



Prof. Lian Zhou



Prof. Boyun Huang



Prof. Yuanyuan Li



Prof. Bingbo Wei

4.5.5 Board of Governors

The 7th member representative assembly was held in Beijing, April 18th, 2016. The board of Governors of C-MRS (7th term from 2016) now has 260 members with 83 standing committee members. These members are the material research scientists and administrators from the materials research institutions and related universities, and entrepreneurs from materials companies.

4.5.6 Membership

C-MRS has more than 200 group members, including well-known universities, materials faculties, research institutions, and commercial enterprises (with more than 30,000 professors, research scientists, students and entrepreneurs). There are about 8000 individual members at present.

4.5.7 Branches

C-MRS has 23 academic branches, covering the fields of energy materials, environment materials, electronic materials, functional materials, structure materials, and materials processing and design, and so on. The regional materials research societies have been established in many provinces and cities, such as Sichuan, Chongqing, Zhejiang, Tianjin, Guangdong, Shanxi, Ningxia, Ningbo, and so on. They are all very active for academic communication and consultation for governments and materials enterprises.

4.5.8 Academic Exchange

1. C-MRS Annual Academic Meeting (Chinese Materials Congress/Conference)

The materials research conference in China was initiated by the old generation materials scientists (Prof. Dongshen Yan, Prof. Changxu Shi and Prof. Hengde Li, et al) in 1986, before the founding of C-MRS. The first materials research Conference was held in Chongqing in Oct. 1986, with 600 participants. Later on, the conferences were held every two year till 2006. After 2008 the conference has been held every year. The “C-MRS Excellent Poster Award”



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is also set up for the authors who present excellent poster papers. In general 10-20 of each award are given every year depending the total number, and the annual meeting is combined with the exhibition on “Advanced Materials, Manufacturing and Testing Equipment”.

The number of symposia and the scale of the conference increases year by year, as shown in the following table.

C-MRS Annual Conferences (from 2008 to 2019)

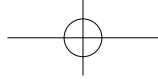
Notes 2013*: Combined with 13th IUMRS -ICAM

2016#: Combined with 17th IUMRS -ICA

Year	Time	Place(City)	Symposia	Participants	Abstracts	Registration fee paid
2008	Nov.22-24	Guangzhou	19	1100	1100	900
2009	Oct.14-17	Suzhou	13	800	810	598
2010	June18-22	Changsha	17	1200	1238	1000
2011	May18-22	Beijing	24	1500	1456	1334
2012	July12-16	Taiyuan	23	1800	1821	1650
2013*	Sept.23-27	Qingdao	33	2500	2410	1910
2014	July 4-8	Chengdu	19	2300	1858	1791
2015	July10-14	Guiyang	30	3200	2700	2829
2016#	Oct.20-24	Qingdao	28	2500	2308	2035
2017	July6-12	Yinchuan	37	5500	4000	4590
2018	July12-16	Xiamen	35	6000	4969	4290
2019	July10-14	Chengdu	46	7000	4320	5707



Opening Ceremony of C-MRS Chinese
Materials Conference in Guiyang, Guizhou, July 11, 2015



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Opening Ceremony of C-MRS Chinese Materials Conference in Yinchuan, Ningxia, July 7, 2017



Opening Ceremony of C-MRS Chinese Materials Conference in Xiamen, Fujian, July 13, 2018



Prof. Soo wohn Lee, President of IUMRS gave a speech at MRS Chinese Materials Conference in Xiamen, Fujian, July 13, 2018

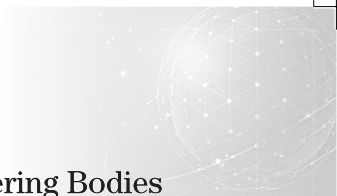
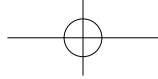


2. International Conferences

C-MRS has successfully organized many IUMRS series conferences, including ICA1993, ICA2000, ICA2010, ICA2016, ICAM1999, ICAM2013, ICEM2002, ICYRAM2014, WMS2009, WMS2016, WMS2019. IUMRS-ICAM 1999 was held in the Beijing International Convention Center, June 13-18, 1999. 36 parallel symposia and two forums were held during the conference, and the size of the conference was about 1800 including more than 700 international participants from 45 countries and areas. In 2002 IUMRS-ICEM 2002 was held in the world famous historic city Xi'an, June 14-18, 2002. IUMRS-ICEM2002 included 16 parallel symposia, and the attendance of the conference was about 800 including more than 300 international participants from 28 countries. The list of IUMRS Series Meetings organized by C-MRS in China is as follows.

IUMRS Series Meetings organized by C-MRS in China

Year	Time	Place	Meeting's Name	Number of Symposia	Scale	Country/areas of Participants From
1993	Sept. 18-20	Yangtze River	IUMRS-ICA		180	
1999	June 14-18	Beijing	IUMRS-ICAM	36	2000	45
2000	July 24-26	Hongkong	IUMRS-ICA	12	700	18
2002	June 14-18	Xi'an	IUMRS-ICEM	14	800	28
2009	Oct. 10-13	Suzhou,	IUMRS-WMS	6 parallel sessions	130	20
2010	Sep. 25-28	Qingdao,	IUMRS-ICA	17	1800	12
2013	Sept. 22-28	Qingdao,	IUMRS-ICAM	33	2500	34
2014	Oct. 24-27	Haikou	IUMRS-ICYRAM	15	1400	32
2016	Oct. 17-18	Rizhao	IUMRS-WMS	4 parallel sessions	100	16
2016	Oct. 20-24	Qingdao	IUMRS-ICA	28	2500	17
2019	Oct. 24-26	Hangzhou	IUMRS-WMS & Celebration of IUMRS 30 years	2 parallel sessions	80	18



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IUMRS GA meeting during IUMRS-ICAM 1999 in Beijing



IUMRS GA meeting during IUMRS-ICEM 2002 in Xi'an, China



Opening Ceremony and Plenary Lectures of IUMRS-ICAM, Sept. 23, 2013





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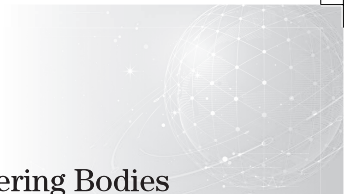
IUMRS President Prof. Osamu Takai gave a speech at the opening ceremony of IUMRS-ICAM , Sept. 23, 2013



C-MRS vice president Prof. Bingbo Wei gave souvenir and certificate to plenary speaker Prof. QikunXue at IUMRS-ICAM , Sept. 23, 2013



Prof. Jacques Amouroux gave a plenary lecture at IUMRS-ICAM , Sept. 23, 2013



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IUMRS GA meeting during IUMRS -ICAM in Qingdao, Oct. 2013



Opening Ceremony and Plenary Lectures of IUMRS-ICA, Oct.21, 2016



IUMRS President, Prof. Hanns-Ulrich Habermeier made a speech at the Opening Ceremony of 17th IUMRS-ICA, Oct.21, 2016



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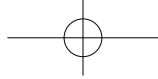
Opening Ceremony of Second IUMRS-ICYRAM, in Haikou, Oct. 25, 2014



Prof. Osamu Takai (IUMRS President,) and Prof. B.V.R. Chowdari (President of MRS-Singapore) gave the “Young Scientist Award “ to Dr. Ali Khademhosseini, at Second IUMRS-ICYRAM, in Haikou, Oct. 25, 2014



Awarding Ceremony of Excellent Posters at the Second IUMRS-ICYRAM, in Haikou, Oct. 26, 2014



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3. Bilateral and Trilateral Conferences with IUMRS Adhering Bodies

C-MRS has a very good relationship with the other IUMRS adhering bodies and has organized many bilateral academic conferences with E-MRS, MRS-Japan, MRS-Korea, MRS-Russia, MRS, MRS-T and MRS-Singapore, as well as Trilateral Conferences, such as, China-Japan-Korea and China-Singapore-India conferences during the last 30 years.

4.5.9 Serving and Consulting

1. Awards for C-MRS members

C-MRS Lifetime Achievement Award The award gives the old generation scientists who both have made outstanding achievement in his/her academic career and made great contribution to the Society.

C-MRS Contribution Award The award encourages the scientists who both have made excellent achievement in his/her academic career and made special contribution to the Society. Most of the winners have been served as C-MRS standing committee members.

C-MRS Science and Technology Progress Award C-MRS established an award for the members who have made outstanding achievements in research, development and application in the field of materials science and technology. The award is named as “C-MRS Science and Technology Progress Award” and was authorized by the Ministry of Science and Technology of China in 2006. 3-5 awards each year have been given since 2007.

2. Consulting service

Consulting for Chinese governments During the last 30 years C-MRS has provided the Consulting service for the government policy makers for formulating materials research and development plan and rules of short term or long term. The C-MRS members have raised many good suggestions to “Ministry of Science and Technology”, “National Development and Reform Commission of China” and “Ministry of Industry and Information Technology of China”, and quite a few suggestions have been adopted by the government.

Consulting for materials enterprises and industrial parks C-MRS also provide the platform for the materials scientists to communicate with entrepreneurs of the middle and small scale materials companies. C-MRS organizes the meeting for this kind communication at various regions in China, including industrial parks in Jinshan (Shanghai), Ningbo (Zhejiang Province), Dezhou, Rizhao and Zibo(Shandong province), et al. to receive good results and response.

Consulting projects of CAST During the recent years (since 2015) C-MRS undertook the consulting projects. The projects include “New materials and future science and technology in coming 30 years” in the year of 2015, “Analysis and evaluation of talents in the field of materials R & D” in 2016, “Analysis of Frontier Materials in the world” in 2017, “Analysis of hot topics in materials research” in 2018, and “Survey and analysis of graphite related materials in China” in 2019, et al. All these projects finished very successfully, provide very useful information for central and local governments.

4.5.10 Publications

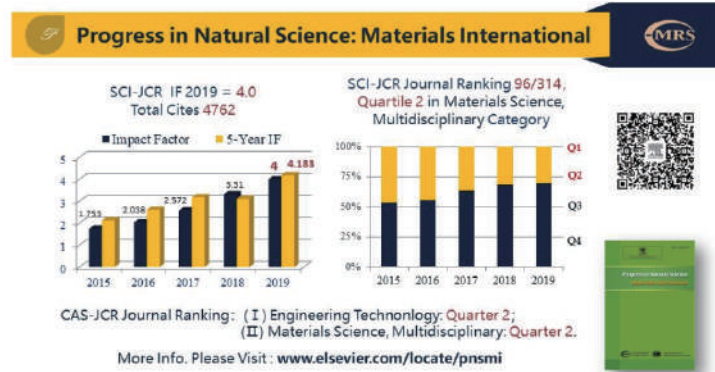
Conference Proceedings C-MRS has published proceedings of all the conferences held during the last 30 years in Chinese or English co-operated with other publishers. C-MRS has very good relationship with world-wide famous publishers, including Trans Tech Publications Ltd., Springer Ltd. and the Institute of Physics Publishing, as well as many domestic publishers. The high-quality publication of the conference proceedings and the precise service for the authors are the important to attract more and more participants of the conference.

Journals C-MRS sponsored or co-sponsored six journals, including “Chinese Journal of Materials Research”; “J. Materials Science and Technology”; “Journal of Functional Materials and Devices”; “Rare Metal Materials and Engineering”; “Materials Progress in China” and “Progress in Natural Science: Materials International” (PROG NAT SCI-MATER). The journal of “Progress in Natural Science: Materials International” is sponsored by C-MRS and IUMRS, managed only by C-MRS and published by Elsevier Ltd. With the financial support of Chinese government and great efforts from the editorial members and the hard working of editorial office staffs the journal is running



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smoothly and the impact factor (IF) was 3.31 and expected IF in 2019 will be more than 4.0.



Annual Series Report on New Materials Industrialization in China C-MRS has edited and published the series “Report on Advanced Materials Industrialization in China” every year, commissioned by the “*National Development and Reform Commission of China*” since 2004, and “*National Development and Reform Commission of China*” and “*Ministry of Industry and Information Technology of China*” since 2014.

Handbooks and Comprehensive Dictionary More than 10 special and important publications on materials science and technologies have been published by C-MRS with thousands of pages. For example, “China Materials Engineering Handbook” was organized and published in 1990s with 26 volumes contributed by hundreds of C-MRS members who are well-known materials professors and experts in China. The “Materials Comprehensive Dictionary” and “Comprehensive Dictionary of Materials” (second edition) were published in 1994 and 2016, respectively.

Materials Series Books During the last 10 years, C-MRS organized the members to write dozens of academic books in the field of materials. The first popular science book titled with “*Approaching Frontiers of New Materials*” has been published in 2019, and the book has received very good response and evaluation. The next books will be issued soon.



4.6 European -MRS



Prof. George
Kiriakidis

A Bird's Eye View by Prof. George Kiriakidis, President of E-MRS, Greece (2017-2019), as current president of the European MRS (E-MRS).

I have enjoyed the privilege of being only loosely attached with the IUMRS's almost 30 year-long history. However, through the numerous international initiatives which span beyond the organization of annual/bi-annual international conferences and meetings all over the globe that include activities with a global reflection such as the World Materials Summits, the Sômiya Award, the Global Leadership and Service Award, the Global Materials Network (GMN) for Young Researchers and others, I had the unique opportunity to meet and collaborate with prominent scientists and researchers from around the world along with materials personalities both from renowned institutions, academia and industry, exchange views and plan for collaborations.

IUMRS, as the umbrella of more than 14 MRS Adhering Bodies from all over the world has managed to coordinate scientific and research activities in all continents and give the opportunity to scientists-particularly- youngto look into the future of materials as the means to create a better future. The enthusiasm and inspiration provided to the young generations from the prominent leaders and members of the IUMRS board will be proven invaluable for the future of our society.

I am sincerely looking forward to the expansion of the IUMRS activities and its more active involvement on shaping the future of young materials researchers.

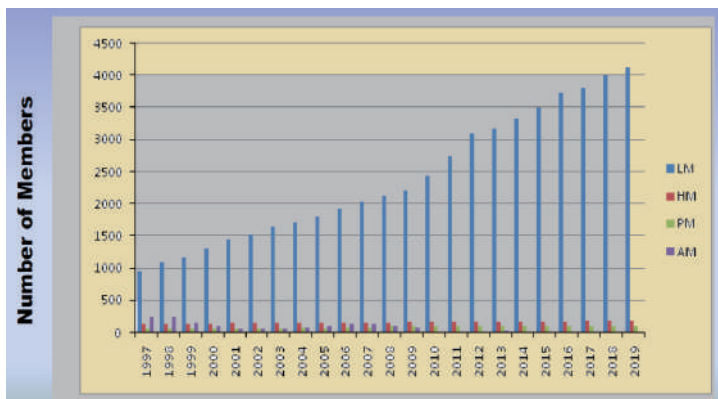
Prof. George Kiriakidis *E-MRSPresident (2017-19)*

- George Kiriakidis, Professor, Head TCM Group / IESL, FORTH, Greece.
<https://www.physics.uoc.gr/en/faculty/g.kiriakidis>

4.7 MRS-India

The Materials Research Society of India came into existence in February 1989, thanks to the farsighted vision of Prof. C N R Rao. Prof. Rao functioned as the first President and laid the foundation for its impressive growth over the past 3 decades. He was succeeded by Prof. P Rama Rao, Prof. S K Joshi, Dr. R Chidambaram, Dr. D Chakravorty, Dr. Mashelkar, Dr. T Ramasami, Dr. G Sundararajan and Dr.Suresh Das as Presidents. Currently Prof. S B Krupanidhi serves as the President of MRSI.

MRSI is dedicated to the development and expansion of materials science and technology base in India and to



The graph indicates the growth of membership from 1997 to 2019 (September)

serve as an interdisciplinary forum for professionals involved in research, technology and development and use a whole range of structural and functional materials. MRSI functions through 23 Regional Chapters and 11 Subject groups. MRSI is supported by individual members and institutions who will be patrons of the society. Its current membership includes 4124 Life members, 173 Honorary members and 84 Patron members amounting to a total of 4381 members.



4.7.1 Activities (national)

The activities organized by MRSI basically include the following categories: Lectures, Seminars, Chapter AGM, AGM's with Indian Materials Conclave, Award Lectures, Theme symposia, Council Meetings.

4.7.2 International links of MRSI

MRSI is a founding adhering body of the International Union of Materials Research Societies(IUMRS) and participates in the international arena of materials research. MRSI has hosted the following conferences in Bangalore, India:

IUMRS-ICA in 1998

IUMRS-ICAM in 2007

IUMRS-ICA in 2013

IUMRS-ICYRAM in 2016



IUMRS-ICA 1998



IUMRS-ICAM 2007



IUMRS-ICA 2013



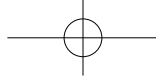
IUMRS-ICYRAM 2016

4.7.3 Asia Pacific Academy of Materials(APAM)

MRSI is a founding member of Asia Pacific Academy of Materials (APAM). Prof. CNR Rao is its Founder President. Prof. O N Srivastava serves as the President of APAM India chapter. The APAM India Chapter holds its annual meeting in conjunction with the AGM of MRSI. APAM has members from India, Australia, China, Hong Kong, Japan, Korea, Mongolia, Russia, Singapore, Taiwan and Uzbekistan. APAM-India Chapter has more than 100 members.

4.7.4 Bulletin of Materials Science

MRSI co-sponsors the publication of Bulletin of Materials Science (BMS) published by the Indian Academy of Sciences.



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BMS Website

<http://www.ias.ac.in/materci> (full text available)

MRSI Website

<http://www.mrsi.org.in>

MRSI Newsletter

The MRSI has been regularly publishing the MRS Newsletter. This is a quarterly publication. Several issues have been brought out successfully for the past seventeen years.

Editor: Dr. K K Nanda

Commenced in April 2001. Successfully brought out 67 issues so far. Since 2009 only electronic version of the newsletter is being brought out.

4.7.5 Students' Projects

MRSI is partially supporting upto 10 projects of students (B.Tech, M.Tech, ME, M.Phil, Ph.D) in the area of Materials Science and Technology under the supervision of MRSI member. Currently, this support is in the form of travelling grant to present their project work in the MRSI AGM. A good number of students have been granted support so far.

MRSI recognizes contributions to materials research through the following:

- International Medal for Materials Science and Technology
- MRSI Silver Jubilee International Medal
- CNR Rao Prize Lecture in Advanced Materials & Distinguished Materials Scientist of the year Award
- MRSI-ICSC Superconductivity & Materials Science
- Senior Award
- Distinguished Lecturership Award
- MRSI-ICSC Superconductivity & Materials Science
- Annual Prizes
- MRSI Medal Lectures
- Honorary members

4.7.6 Annual general body meetings

The Annual General Body Meeting of MRSI is held in February every year. So far 3300 AGMs have been held by different chapters of MRSI.



MRS-India annual general meeting 2009



International Union of
Materials Research Society (IUMRS)



MRSI annual general meeting 2019

Contributed By Contributed
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General Secretary, MRSI
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4.8 MRS-Indonesia

Ten years of MRS-Indonesia

by Prof. EvvyKartini, President of MRS-Indonesia

4.8.1 History and goals of MRS-INA

1) The Milestone of MRS-Indonesia



The Milestone of MRS-INA (2010-2020)

2) The goals of MRS-INA



International Conference on Materials Science and Technology 2010 (ICMST2010)
 President of IUMRS (2009-2010), Prof. Dr. Chowdari attended the ICMST 2010

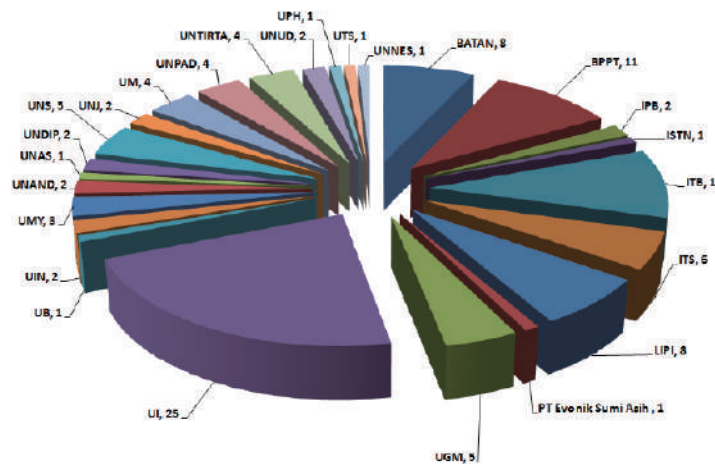
Materials Research Society Indonesia (MRS-INA) or in Indonesian called as *Perkumpulan Masyarakat Riset Material-Indonesia*, was established in April 15, 2011. The goal of MRS-INA is to promote the materials research activities in Indonesia into International forum by representing the materials research societies in Indonesia to the International Union of Materials Research Society (IUMRS). Another goal is to

open national and international networking in the field of materials research, and to promote its applications in various areas of industries. MRS-INA has also responsible to educate and train young researchers or students about the materials knowledge and characterizations. Since the beginning, MRS-INA was launched by President of IUMRS (Prof. Chowdari) in 2010. The founders of this organization were coming from various institutions and universities in Indonesia, showing that the MRS-INA is unity in diversity of materials societies. MRS-INA act by law was signed in April 15, 2011. However, due to the change of administration in the law-office, it was just released in January 2017

4.8.2 Membership of MRS-Indonesia

In 2020, MRS-INA has more than 400 members from industry, government, academia and research laboratories, who meet regularly to discuss recent technological developments of functional materials. The MRS-INA differs from many single-discipline professional societies by encouraging scientists, engineers and research managers to exchange information on an interdisciplinary platform, and by recognizing professional and technical excellence. The members that have PhD degree are 120, they are mostly researchers and lecturers from various universities and institutions in Indonesia. These, name can be observed in our website.

Students and other researchers are automatically become the member of MRS-INA when they attended the conference or workshop organized by MRS-INA. The members of MRS-INA are representing various National institutions which spread out all over Indonesia.



Member of MRS-INA with PhD degree and diversity of Universities /institutions

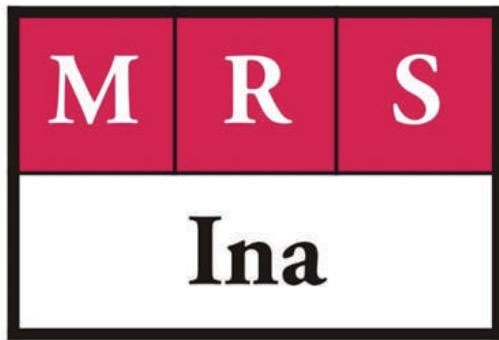


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The individual member becomes a member at first automatically via the conference organized by MRS-INA. Some other individual members have been told or invited by member. We open also the website <http://mrs-ina.org> for registration as member. *Profile of the geographic and/or national extent* of the region primarily are served by the applicant organization.

Indonesia is located in between two continents, Australia and Asia, and two Oceans, Pacific and Indonesian Ocean. It is part of the South East Asian Country, and it is very close to Singapore. Indonesia has the fourth largest population in the world. Indonesia has a potential to grow the material scientists in various subject or areas, and gather them into a solid materials research society.

4.8.3 The Logo of MRS-Indonesia



Old: Representing Indonesian's Flag



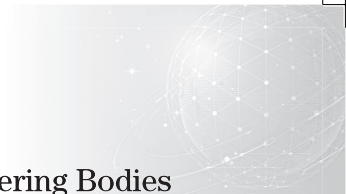
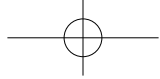
New: Representing Indonesian's Island

4.8.4 Summary of previous activities of MRS-INA

MRS-INA has various activities e.g. meetings and workshops organized or sponsored, awards, publications, training, etc. Those activities are as follows.

- International Conference on Materials Science and Technology 2010 (ICMST2010),
- Workshop on Solid State Ionics 2010
- Neutron and X-ray National Seminar 2013
- International Symposium on Nano Materials 2013 (ISN2013)
- International Conference on Materials Science and Technology 2014 (ICMST2014)
- International School on Solid State Ionics 2014
- Active Learning in Optics 2015 (ALOP2015)
- Neutron and X-ray National Seminar 2015
- Atom Indonesia Best Paper Awards 2016 (co-organizer)
- Workshop on Writing Article in International Journal 2016 (co-organizer)
- Workshop on Materials Characterization 2017
- Organized the MRS-INA Conference and Congress in Yogyakarta, October 8-12, 2017
- Organized the ICA-IUMRS in Bali, October 29-November 2, 2018
- Organized the ICAM-ICMR 2019 in Sentul, Indonesia, 8-12 October 2019
- Organized International Workshop on Lithium Ion Battery in Aston, Sentul, 8-9 October 2019.

Most of the activities involved international keynote speakers with the participants from various countries. Some of the photos and documents of the activities are shown as following.



Chapter 4 Present Adhering Bodies



Asian Workshop on Solid State Ionics, Serpong, Indonesia, October 19 2010



Battery School & Aonsa Neutron School , Batan, Serpong, October 13-18, 2014



International Conference on Materials Science and Technology 15 October 2014



International Union of
Materials Research Society (IUMRS)



Workshop on Active Learning in Optics and Photonics (ALOP) “ Celebrating the International Year of Light 2015”, Serpong, March 23-27, 2015

4.8.5 Joining IUMRS

4.8.5.1 Starting to involve International Union of Materials Research Societies (IUMRS) at Suntec, Singapore, 2016



General Assembly of IUMRS 2016 in Singapore, Suntec Singapore, July 3-5, 2016, Planning IUMRS-ICA in Bali, 2018

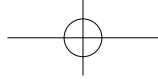
The General Assembly of IUMRS 2016 was held at Suntec City, Singapore with the host society of MRS Singapore. Prof. Dr. Evvy Kartini, the President of MRS-INA, was invited to attend the meeting to introduce the activities of MRS-Indonesia. The meeting in Singapore attracted other societies such as MRS Thailand, MRS Vietnam and MRS Malaysia to apply for the membership of IUMRS. Furthermore, during the official dinner, it was discussed among the Asian members that MRS-Indonesia should organize the International Conference in Asia (IUMRS-



IUMRS officers and presidents of IUMRS ABs at 6th World Materials Summit



The delegations from MRS-INA, Prof. Dr. Herman Yuwono and Dr. Chairul Hudaya and Prof. Evvy Kartini at 6th World Materials Summit



Chapter 4 Present Adhering Bodies

ICA) 2018. Prof. Evvy Kartini accepted this sugges

The president of MRS-Indonesia, Prof. Evvy Kartini started to join the activities of IUMRS since 2016, including to participant 6th World Materials Summit, in Rizhao, China, October 18-20, 2016; IUMRS-ICA2016, in Qingdao, October 21-24, 2016; IUMRS-ICAM2017, in Kyoto, Japan, August 27-31, 2017. And MRS-Indonesia hosted IUMRS-ICA2018 in Bali, Oct. 30-Nov. 2, 2018, successfully.

4.8.5.2 Officially accepted as a member of IUMRS in Kyoto, Japan, August 27, 2017



President of MRS-Indonesia, Prof. Evvy Kartini was invited to attend IUMRS GA meeting in Kyoto, Japan, August 27, 2017 to apply for the membership of IUMRS. MRS-Indonesia was officially accepted as a member of IUMRS based on the voting result of IUMRS adhering bodies.

Left photo: The participants of IUMRS General Assembly in Kyoto, August 27, 2017. They represented the adhering bodies of IUMRS (MRS-Australia, MRS-Brazi, C-MRS, E-MRS, MRS-India, MRS-J, MRS-K, MRS-Mexico, MRS-Singapore, MRS-T, MRS-Thailand).

Right photo: Dr. John Baglin (USA), the membership commission chair congratulated Prof. Evvy Kartini for the acceptance of the MRS-INA as the member of IUMRS.

4.8.5.3 Holding the First MRS-INA Conference after becoming IUMRS member



IUMRS President, Prof. Soo Wahn Lee opened the MRS-INA Conference on October 8, 2017 and presented the certificate of membership to Prof. Evvy Kartini, the President of MRS-INA.

The first conference after become adhering body of IUMRS was held in Yogyakarta, October 2017. The President of IUMRS, Prof. Soo Wahn Lee, attended the conference and officially launched the conference, and presented the certificate of membership IUMRS to the MRS-INA. More than 400 participants

from 15 countries and domestic universities, institutions and privates attended the conference. Prof. Evvy Kartini was chosen to lead the MRS-INA, as the President.



Group photo of MRS-INA Committee members with Prof. Soo Wahn Lee (IUMRS president) and Prof. B.V.R. Chowdari (President of MRS-Singapore)



4.8.5. 3 Holding IUMRS-ICA 2018, Denpasar Bali, Indonesia, Oct. 30-Nov. 2, 2018



Group photo of IUMRS-ICA 2018, Bali, Indonesia



IUMRS officers with the Indonesia Government leaders at IUMRS-ICA 2018

The papers of ICA-IUMRS2018 were published on The IOP Materials Science & Engineering (67 articles), ION-ICS Journal (12 articles), PNS:MI Journal (7 articles) and Atom Indonesia (5 articles), respectively.

4.8.5.4 Organized ICAMT2019 & ICMR2019 and International Workshop on Lithium Ion Battery



Group picture of the participants of ICAMT2019 & ICMR2019

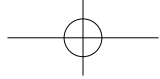
workshop, the consortium battery launched the National Battery Research Institute (NBRI). It was explained in more detail during the closing by Prof. Evvy Kartini, the idea and the goal of NBRI. Then, after the meeting Prof. Alan Drew, mentioned that the NBRI was a great idea and it has to be established, like the one Faraday Institution in UK. As the implementation of the MoU between MRS-INA and QMUL, UK, it was followed by the application of the

MRS-INA organized the International Conference in Asia of IUMRS (ICA-IUMRS) at the Anvaya Hotel, Denpasar, Bali, Oct. 30-Nov. 2, 2018. It was a great challenging for the Indonesian society to have this opportunity. More than 400 participants came from more than 20 countries, including several countries in Europe and Asia, Australia, and America. The President of IUMRS, Prof. Soo Wahn Lee and the First Vice President, Prof. Yafang Han and presidents of MRSs from Korea, Australia, Japan, Thailand, Singapore attended the conference. There were also directors from International Neutron facilities attended the conference and deliver inspiring lectures.

The chair of the conference, Prof. Anne Zulfia from the University of Indonesia, the chair of presidential advisory body, Prof. Dr. Sri Adiningsih and the rector from University of Udayana attended the opening ceremony of IUMRS-ICA 2018. And Prof. Dr. Sri Adiningsih gave a speech at the opening ceremony.

MRS-Indonesia has been successfully organized International Conference on Advanced Materials Technology 2019 (ICAMT2019) & International Conference on Multi-disciplinary Research (ICMR2019) at Aston Hotel International, Sentul, Bogor, 8-9 October 2019. IUMRS president Prof. S. W. Lee attended the conference.

During the conference the International Workshop on Lithium Ion Battery was also organized with the participants from various institutions, universities and industries (55%). During the opening ceremony of the



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Global Challenge Research Fund (GCRF) by Prof. Alan J. Drew with the partner Prof. Evvy Kartini, to establish the National Battery Research Institute (NBRI). The grant was accepted in January 2020, then, it officially established in December 2010, as the Foundation of Center Excellence Innovation of Battery and Renewable Energy. Prof. Evvy Kartini as a founder of NBRI, and Prof. Alan Drew as a co-founder of NBRI.



IUMRS president Prof. S. W. Lee opened the conference (left one) and Signed MoU between MRS-INA & ANU-Australia; QMUL, UK; B4T, Kemenperin; IMMI, Inalum and MTM, ITB(right one)

4.8.5.5 Attended IUMRS-ICA2019, Perth Australia, Sept. 22-26, 2019 and IUMRS World Materials Summit, Hangzhou, China Oct. 23-26, 2019



IUMRS informal GA meeting during IUMRS-ICA 2019



Group Photo of IUMRS World Materials Summit, Hangzhou, China, Oct. 23-26, 2019



Prof. EvvyKartini met IUMRS members at IUMRS WMS, Hangzhou, China, Oct., 20

Prof. Evvy Kartini with leaders from E-MRS, MRS-Japan, MRS-Taiwan and MRS-Thailand during IUMRS WMS, Hangzhou, China, Oct. 23-26, 2019

4.9 MRS-Japan

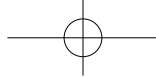
The Materials Research Society of Japan (MRS-Japan) has just celebrated the thirtieth anniversary. In this article, the activities related to MRS-Japan and IUMRS in the last thirty years are briefly described.

4.9.1. Early days

It has globally been recognized that the innovation and new materials development are the complementary to each other and together constitute the key for future scientific and technological progresses. In order to achieve a sustainable society and life, and to solve the critical issues that the humankind is currently facing, such as environmental and energy problems, with their multiple facets and interwoven elements, the developments of new materials and advanced technologies are of crucial importance. For this kind of research and development of new materials, it is vital to discard the conventional classification of material species among metals, organic and inorganic materials, or structural and functional materials, in accordance with various industries, such as industries of chemicals, steels, machines, foods, medicals, transports, information technology, etc. and to take interdisciplinary/multidisciplinary approaches in cooperation with experts of diverse materials science and engineering fields.



Picture 1: Professors M. Doyama and S. Somiya.



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According to these understandings, Professor R. P. H. (Bob) Chang (Northwestern Univ., U. S. A.) came to Japan in 1985 to discuss the establishment of Materials Research Society of Japan [1, 2] with Japanese scientists including Prof. Masao Doyama and Prof. Shigeyuki Somiya (Picture 1). At that time, MRS (est. 1973) was a very active society. European MRS had been established in 1983. Doyama and Somiya discussed Bob's proposal seriously. In order to see the reaction of scientists and engineers to materials research, they decided to organize an international conference at Sunshine City, Ikebukuro, Tokyo from May 30 to June 3, 1988. There was extensive cooperation to the conference from Nikkan Kogyo Shimbun, Co. Ltd. The conference attracted over 1600 scientists and engineers from 25 countries and was a success. With this success, Doyama, Somiya, Dr. Kiyoshi Inoue, and Mr. Yoshitaka Agata met in Tokyo on March 16, 1989 to establish Advanced Materials Science and Engineering Society (AMSES). AMSES changed its name to MRS-Japan in 1990, because the name of MRS was more widespread than AMSES.

4.9.2. Activities in Thirty Years (1989 to 2019)



Picture 2: Dinner at the 30th Anniversary of MRS-Japan.

Since its establishment, the MRS-Japan has promoted research & developments and industrial applications of advanced materials science and technologies, via the interdisciplinary research activities of scientists and engineers and their global cooperation. As one of activities, MRS-Japan has organized many annual meetings (domestic meetings) and international conferences. In these domestic

meetings, there were about 20 symposia. Each symposium was organized by about 10 scientists in average. Topics of symposia were in the area of nano-materials, biomaterials and soft materials, new technologies and techniques, computational science, energy and environmental issues, interdisciplinary materials, education, etc. The most well-recognized contribution of MRS-Japan to the community is Award for Encouragement of Research (Young Scientists Award). International conferences MRS-Japan held were those related to IUMRS, as will be shown in next section.

As for the memorial events, the MRS-Japan celebrated its 10th anniversary of establishment at Ishigaki Memorial Hall in Tokyo, September 17, 1999. This memorial event featured seven major lectures covered by various fields from science and technology. The details can be referred to the MRS-J News issued at that time. The MRS-Japan 20th Anniversary Symposium was successfully held on December 6, 2009 at Yokohama Media & Information Center. This symposium was organized by MRS-Japan, discussing on "Materials for 21st Century" as the main theme. The Thirtieth Anniversary Symposium was held on November 29, 2019, the last day of annual meetings (Picture 2). In the symposium, the president stressed that the existence of societies relating to any kind of materials was in danger and that we had to change the way of thinking.

The MRS-Japan has been publishing Newsletters four times in a year since 1989 and Transactions of the Materials Research Society of Japan four to six times a year since 1990.

4.9.3. Relation to IUMRS

We congratulate IUMRS on its 30th Anniversary. The International Materials Research Committee was established in September 1989 and AMSES was recognized as one of the funding societies of this committee. Then the International Union of Materials Research Societies (IUMRS) was established in 1991 consisting eight Materials



International Union of
Materials Research Society (IUMRS)

Research Societies from around the world including MRS-Japan. In 1993, the 3rd IUMRS-ICAM conference was held again at Ikebukuro, Tokyo. The conference in 1988 was recognized as the first IUMRS conference. Since then, the MRS-Japan has organized international conferences and symposia under the cooperation with the IUMRS (Picture 3 (a), (b), and (c)), such as IUMRS-ICA'97 (Makuhari, Sep. 1997), IUMRS-ICAM 2003 (Yokohama, Oct. 2003), IUMRS-ICA 2008 (Nagoya, Dec. 2008), IUMRS-ICEM 2012 (Yokohama, Sep. 2012), IUMRS-ICA 2014 (Fukuoka, Aug. 2014), and IUMRS-ICAM 2017 (Kyoto, Aug. 2017). The IUMRS-ICA 2008 attracted more than 1800 participants with 50 symposia. The MRS-Japan cooperates with and actively participates in the IUMRS conferences. The IUMRS conferences are growing year by year and keep providing materials scientists and engineers with unique opportunities to highlight their R&D achievements and to develop the international networking. Recently, the MRS-Japan has initiated MRM 2019 (Materials Research Meeting) as one of international conferences.

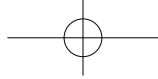
In addition, the MRS-Japan has been sending several of its members to IUMRS to serve as president, vice-president, treasurer, and others. Somiya Award for International Collaboration (Picture 4) is the most well-known contribution of the MRS-Japan to IUMRS. It has been given to group of researchers since 2000. The MRS-Japan is organizing bilateral symposia with European MRS and Australian MRS.



Picture 3: (a) A scene at IUMRS-ICA 2008; (b) A scene at IUMRS-ICEM 2012
(c) A scene at IUMRS-ICAM 2017; (d) Somiya Award.

References

- [1] S. Somiya, Trans. Mat. Res. Soc. Japan, 20th Anniversary Special Issue, 1-4 (2012).
- [2] M. Yoshimura, Program book of the 29th Annual Meeting of MRS-Japan, page 28 (2019).



4.10 MRS-Korea

Recent 10 years of MRS Korea



Prof. W.-G. Jung

Congratulations to IUMRS for its 30 years anniversary. Thanks to the former executives and adhering body members of IUMRS.

The Materials Research Society of Korea (MRS-Korea) was established on February 23, 1991 under industrial/academic/institutional cooperation in order to contribute to activate the materials research and to bring together a wide variety of knowledge in physics, chemistry, bio technology, semi-conductor, electronics, agriculture, etc. as well as to facilitate the activation of an industry-university technology exchange in materials science and engineering fields of metals, electromagnetics and new materials.

We have about 1400 members in the society, including life, regular, student, and institutional members. In order to respond to the demands of the era, the Materials Research Society of Korea is continuously changing and growing under the support of the academia and industry for the development of the materials industry, which is the basis for the growth in Korean economy and industry. Our society has a wide range of subjects in all fields of materials science and engineering, and is providing a platform for exchanging people who are responsible for the development of science and technology related to materials from senior scientists to students.

There have been numerous societies active in promoting materials research in areas such as metal, ceramics and polymers. However, as the materials used in modern advanced industries must have characteristics of high performance, multi-functionality and accuracy due to the complex manufacturing processes, it was necessary to create an integrated database of "materials science and engineering" to comprehensively deal with metals, electronics, ceramics, polymers, etc.

Under our objectives of the society, the MRS-K has published "The Materials Research Society of Korea Journal", first in a quarterly edition from June 1991, followed by monthly journals since 1997. The journal publishes papers, reviews, breaking news and simplex about materials science and engineering according to the purpose of the society's establishment. This journal is now indexed in SCOPUS and ESCI as well as KCI (Korea Citation Index).



The main purpose of MRS-K conference is to contribute the development of materials-related science and technology by providing the platform that researchers and graduate students who are engaged in materials related research at universities, national research institutes and industrial institutes present and discuss their recent results and

latest technology information.



The MRS-Korea domestic conferences and symposia

The society has been hosting two domestic conferences (Spring and Fall) regularly every year since 1991 to promote communication and cooperation between academia and industry. Also, we are organizing the New Material Special Symposium in parallel with the conference from the year 2000 to focus on timely, important technologies in fields of energy, the environment, fusion technology, etc. In 2019, 8 Special Symposia were held in the Spring and the



International conferences hosted by MRS-Korea

Fall meetings each.

In support of IUMRS, MRS-Korea has also been continuously hosting international conferences including the IUMRS-ICA (2012), the IUMRS-ICAM (2015), the IUMRS-ICEM (2018). We also held international joint symposiums including the Korea-Mexico Joint Symposium and the Joint Symposium between the European MRS and the MRS-Korea to facilitate the collaborative research between those societies. In upcoming 2021, the MRS-K is going to host the IUMRS-ICA in Jeju, Korea. We would like to

invite many scientists from around the world and look forward to the cooperation of the IUMRS members.

MRS-Korea will continue to contribute to the development of the fields of materials science and engineering in Korea and in the world. Recently the boundary between sciences and technologies has dimmed and various fusion technologies have emerged. Thus, MRS-Korea will continue to play a role in communicating people from different scientific areas and will become a key center of research activity.

I wish the success of the IUMRS in future in the materials research community.

Woo-Gwang Jung

Kookmin University, Seoul, Korea

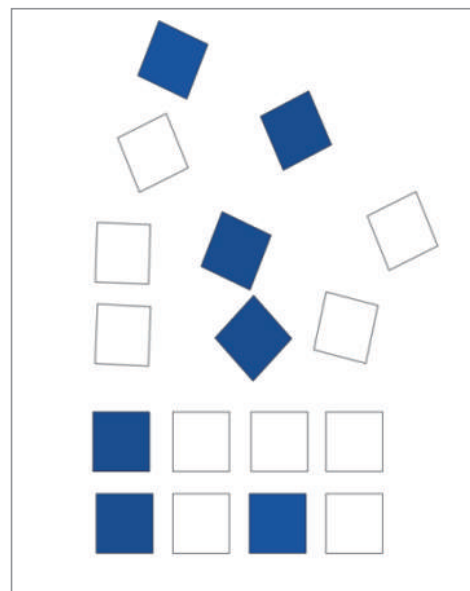
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4.11 MRS-Mexico

By Sergio Javier Mejia Rosales, President of MRS-Mexico

4.11.1 Introduction

The Mexican Materials Society (SMM), in coincidence with IUMRS, celebrates this year its twentieth anniversary. Overcoming some initial resistance by several groups that considered unnecessary the existence of a Mexican association intended to group the different areas of materials science, the Mexican Materials Academy (the original name of SMM) was finally officially established on 1991. Since its early beginnings, the SMM differentiated itself from other scientific societies recently created at that time in Mexico, both because it's multidisciplinary character, but also because the enthusiasm and determination of their founding members. As a natural consequence of the momentum impressed to the Academy, its membership started to grow rapidly, and the International Materials Research Congress, organized yearly by the SMM, became its flagship event, and one of the most highly reputed academic events on Materials Science in Latin America.



The logo of mexican materials society.



Chapter 4 Present Adhering Bodies



IMRC staff, taking a break at the poster session. IMRC-2006.(Gutiérrez-Wing personal collection)



marinero, at the nanostructured materials and nanotechnology symposium. imrc 2006.(gutierrez-wing personal collection)

4.11.2 The International Materials Research Congress

The International Materials Research Congress was created with the main purpose to provide the SMM members with their own forum of discussion on the most recent advances in materials science and technology. This response of the Mexican materials community to this effort was almost immediate; several symposia were proposed, and some of them had such a big response that they still exist, with different levels of involvement and rates of growth. The stability of these groups of symposia has been one of the features that gives the IMRC its own personality. Another personality trait of the congress —at least in recent years— is, of course, the city and beaches of Cancun.

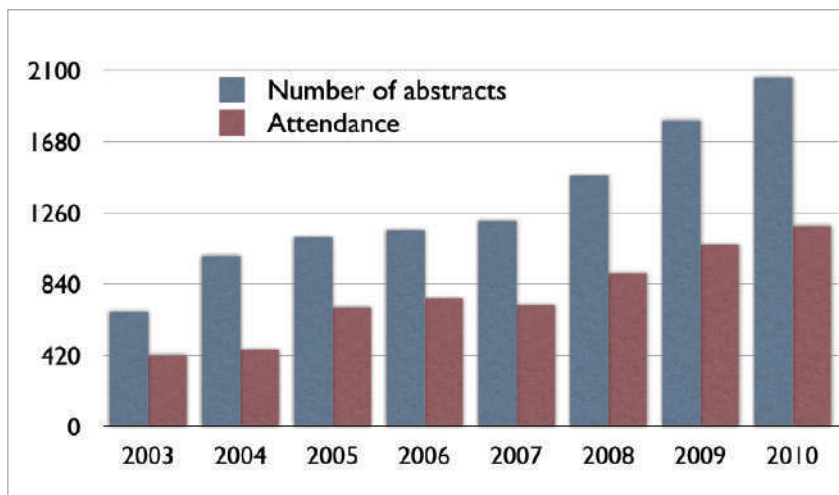
The IMRC have been organized yearly by the SMM every august, with an exception: in August 14, 2007, Tropical Storm Dean reached the coasts of Cancun, to become a hurricane just two days later. On August 17, the IMRC was officially delayed until further notice. Eventually, the IMRC was re-scheduled to be on November, but part of the damage was already done: some invited speakers cancelled their participations, and the regular attendance was somewhat diminished. But even on those circumstances, the quality and good spirit prevailed, and the 2007 version of IMRC was a very enjoyable experience for those of us who were able to attend.



J. Méndez Nonell, president of the SMM, gives a diploma to M. Gracia on the Best poster contest. IMRC 2007.



Posters Session. IMRC 2008.



Received abstracts and registered attendance at the IMRC.

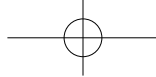
Since 2009, The SMM has partnered with the Materials Research Society in the organization of the IMRC. This alliance, a natural outcome of the internationalization of science and of the maturity of the SMM, increased the offer of symposia and reinforced the international character of the Congress. For 2011, the program of the IMRC includes 23 symposia, four plenary contributions by worldwide known specialists (Eduard Arzt, from the Leibniz Institute for New Materials; Ivan K. Schuller, from UC San Diego; Sumiolijima, from Meijo University, Nagoya, and Dan Shechtman, from Technion - Israel Institute of Technology,) tutorial courses, and commercial exhibits.

One of the key elements of the IMRC —and of the SMM efforts— is the participation and support of students. Every year, the SMM offers scholarships and registration exemptions to graduate students that present their research work at the congress, and SMM and MRS jointly give prizes to the best poster presentations. In the last years, the SMM grew at a great pace in number of member in level of internationalization, and in quality of its Congress. Today, its membership fluctuates around 1800 regular members, and its partnership with peer societies (IUMRS, MRS, Mexican Society Crystallography, National Association of Corrosion Engineers, and Virtual Center Mexico-Brasil on Nanotechnology) clearly shows its tendency towards collaboration, and demonstrates the real international outreach on the materials community.

4.11.3 The current state of SMM

The evolution of the SMM can be measured by the participation of its foreign and Mexican members at the International Materials Research Congress, the creation of new and consolidation of already established strategic alliances, the active participation in other events, and the constantly increasing promotion of its members and the academic development of students. One of the natural consequences of this evolution is the appointment in 2010 of our first Executive Director, and the establishment of a permanent office in Mexico City. The new management scheme will allow us to work even more efficiently in achieving our goals.

For 2011, the main activities of the SMM will be guided by two general ideas: 1) to strengthen the position of the SMM among their peers, and 2) to reinforce the position of the SMM as the natural speaker in front of government, academia, and industry, on issues related to materials science and technology. In accordance with these two ideas, the IMRC keeps its place as the flagship of the SMM, being the forum through which the community identifies the materials society. Complementing the activities directly related to the IMRC, the SMM will also work on other ways to increase the outreach with other societies, academic institutions, and the general public.



4.11.4 The Origins of the Mexican MRS



Prof. Miguel Jose
Yacaman

My first contact with the MRS came in the fall of 1982 when I presented an invited talk at a symposium on catalysis organized by Kamil Klier. The first session was on electron microscopy. The first speaker was Albert Crewe of the University of Chicago who gave a splendid talk on STEM and showed individual atom images (Back in 1982). I was the second invited speaker and I can still recall the strong atmosphere in the room charged with the interest of the audience. I felt a great interest in my talk and I really enjoyed the rest of the meeting. It was a small gathering maybe 500 people all together in a small, cute Boston hotel called the Park Plaza. I was just amazed by the composition of the people: The catalysis bunch,, the surface science guys, the electronic fellows , the polymeric, the theoretical, etc. It was great! I became a regular to the fall meeting and watched the slow growth from the Park Plaza to the Marriot and the Westin, to the spring meeting to the huge meeting.

I began convincing many of my colleagues at the Institute of Physics at UNAM to join me in attending the MRS Boston Meeting. By 1989 it was clear that we needed to form a Mexican Society. The core of people attending the MRS meetings was from the Institute of Physics of UNAM. At that time I was director of the Institute and had some leverage to organize.

The first closed-door meeting was called on the grounds of the Physics Institute UNAM in 1989 to discuss the formation of a society on a broad basis. The meeting, however, did not go well. The members of the polymer society, the metals society and ceramic were not happy about a new society. We adjourned without a consensus. After the fiasco the small group at the Institute of Physics at UNAM kept the spirit and was able to convince a few others little by little.

We then decided in 1990 to form the society officially. We chose the legal name of “Academia Mexicana de Materials”; the document was signed by 10 persons at the public notary and registered in the public archives of societies. All the members were Mexican but one, Mr. Yoshio Noguchi, Director of JEOL Mexico, who became a materials promoter and was a Japanese national. At that time Mexico was still a bit isolated country and the presence of a non-Mexican induced additional legal procedures. Dr Miguel Jose Yacaman was elected first President.

Anyway the Mexican MRS was launched in paper. We organized the first National Materials Meeting In Mexico City in 1991 where we used the Radisson Hotel In Mexico City. We had a good attendance of about 200 people. We needed a launching event with event with enough credibility and attraction to establish the society. The opportunity came soon. In 1990 Dr. Miguel Jose Yacaman was associate editor of Acta/ScriptaMetallurgica. The journal organized a small workshop in Atlantic City to discuss the future of a new emerging field: Nanostructured Materials. (This was 10 years before NSF launched the nanotechnology initiative). The group, which included several prominent researchers, examined the possibility of tailoring mechanical properties of materials by reducing the grain size. The panel decided that it was time for an international meeting sponsored by Acta/Scripta to discuss Nanostructures. An international standing committee and a new journal were created. In that meeting Dr. Miguel Jose Yacaman offered that the Mexican MRS could host the meeting. The offer was accepted and the meeting set for 1992. We used the first International Conference on Nanostructured Materials to combine with the national meeting of the Mexican MRS. There was only one question left: Where to organize the meeting?

Then it was necessary to combine good science with some attractive place. In Mexico there was a tradition of holding meetings in dull places, such as university classrooms or resorts linked to the Mexican social security system. It was necessary to show that scientists were austere almost as Benedict Monks. We decided to try something more attractive - Cancun. This was a spectacular beach resort with air communications as good as any big city in the world and many hotels. With the initial support of Conacyt, we were able to organize the meeting. It was a great risk because it was possible that Mexican attendants will not be allowed to travel to a Resort Nevertheless we broke the initial barrier had many Mexican scientists who attended attracted by the quality of the speakers that included Sum-iOjima, Rick Smalley, Ivan Schuller, Bob Schuill, Dick Siegel and many others. The second national meeting was



organized in parallel by David Rios, who became the second president of the M-MRS.

The meetings were a great success and established the society for good with Cancun as its home. During the following years several meetings took place at the same time as the first Mexican MRS meeting and all those meetings helped to integrate other groups such as the Electron Microscopists, the metallurgists, the corrosion specialists, the art and archeology and many other groups became integrated over the years.

A very important aspect of our society is that we were founding members of the IUMRS. That was an important part of our activity. Mexican MRS hosted the ICAM meeting in 1997 and then again in 2001.

So the small group of 10 persons was able to organize a society that grew to be one of the biggest in Mexico and with an annual meeting with ~ 1200 papers presented. It has become the premier place for Mexican scientists to present their materials related research and to interact with the international community.



Sumio Iijima, Yoshio Nogushi, Miguel Jose Yacamán et al.



JEOL Team Yoshio Nogushi and Mark Kersker with IMRC Secretaries

4.12 MRS-Singapore

20-year Legacy of MRS Singapore Together with IUMRS



Prof. B.V.R. Chowdari

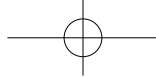
Congratulations to IUMRS and its leadership for reaching the milestone of 30 years. Thanks to the founding fathers and subsequent leadership for their vision and dedicated hard work in bringing IUMRS to what it is today.

It is my pleasure and honour to write this note on behalf of the Materials Research Society of Singapore (MRS Singapore). The success story of MRS Singapore could be partly attributed to its' strong association with IUMRS as an adhering body member.

MRS Singapore was founded in 1999 with limited membership and no track record or credibility or financial resources when it became a member of IUMRS in 2002. This could happen only after MRS Singapore successfully organized its' 1st "International Conference on Materials for Advanced Technologies (ICMAT)" in the year 2001. This certainly testifies to the high standards IUMRS looks for before it enrolls a new member.

As an adhering body of IUMRS, MRS Singapore took several initiatives including organising all IUMRS conferences (ICAM, ICEM, ICA and ICYRAM) one time or more.

The founding of IUMRS – ICYRAM series goes to the credit of both MRS Singapore and IUMRS. As the then President of IUMRS (2011-2012) and MRS Singapore, I proposed the concept of bringing young researchers to a common platform where they can share their ideas and expertise with other young colleagues. The response I received for such an initiative from the then IUMRS Executive Committee and General Assembly was immense; to the



Chapter 4 Present Adhering Bodies

extent IUMRS initiated a new series of conference with MRS Singapore as the organizer for the inaugural IUMRS – ICYRAM.

With the objective of recognizing the excellence, MRS Singapore instituted “IUMRS-MRS Singapore Young Researcher Award” given out during every ICYRAM conference. I am delighted to see that both IUMRS-ICYRAM conference series and the IUMRS-MRS Singapore Young Researcher Award are well received and patronized by the materials research community.

Other than organizing IUMRS conferences, MRS–Singapore organizes biennial “International Conference on Materials for Advanced Technologies (ICMAT)”, the 10th edition of which attracted more than 3,000 delegates. It is a pleasure to see that IUMRS takes advantage of such large gatherings by introducing IUMRS at the opening ceremony of each of the ICMAT conferences at the invitation of MRS Singapore.

With the consent of IUMRS, MRS Singapore initiated organizing the “Trilateral Conference on Nanoscience: Energy, Water and Healthcare” together with its adhering bodies - Chinese MRS and MRS India. The very fact that it is going to the 10th edition speaks volumes about the encouragement provided by IUMRS in adhering bodies coming together, which obviously is one of the objectives of IUMRS.

MRS Singapore continues to serve IUMRS by being part of its Executive Committee. The Vice-President of MRS Singapore and the current Second Vice-President of IUMRS, Prof. Feng Yuan Ping, served as the Secretary of IUMRS before and I myself served as the Second Vice-President, First Vice-President and President of IUMRS at different times. In the same spirit, MRS Singapore is currently hosting the IUMRS Asia Regional Office and handling the financial operations of IUMRS Head Office currently located in China, in preparation for hosting IUMRS Head Office from 1 January 2021.

In support of IUMRS Asia Regional Office’s mission to foster regional cooperation, MRS Singapore contributed significant funds to the two world-class Universities in Singapore, National University of Singapore and the Nanyang Technological University towards bringing the scientists of the Asian region to these Universities for collaborative research.

The world is no longer the same as it was 30 years back. Each Adhering Body of IUMRS gained substantial experience and credibility. Hence, there is a greater need for IUMRS leadership to make serious efforts to receive the continued support of the current adhering bodies. This will make sure of their continued association with IUMRS. Unless the adhering bodies see the absolute need to be part of the Union, there could be a risk of losing them. There is an equal need to motivate new members to join IUMRS. Competition and comparison with other International Unions of similar interest is growing. Despite the best efforts, IUMRS financial status is no way close to that of the most other Unions. I wish IUMRS leadership to take lead in finding alternate approaches to get financially sound and at the same time gain the active support of the adhering bodies.

I wish IUMRS another 30 successful years in the service of materials research community.

B.V.R. Chowdari

Nanyang Technological University, Singapore

© B.V.R. Chowdari, Chairman, International Conference on Materials for Advanced Technologies (ICMAT); Professor, National Technological University, Singapore.

<https://www.physics.nus.edu.sg/~phychowd/>

http://research.ntu.edu.sg/expertise/academicprofile/pages/StaffProfile.aspx?ST_EMAILID=CHOWDARI



4.13 MRS-Thailand

Materials Research Society of Thailand (MRS-Thailand)

By Prof. Dr. Santi Maensiri (President of MRSThailand (2016-present))



First of all, I would like to take this opportunity to congratulate IUMRS for reaching the milestone of 30 years. It is my great honor to provide the information about the Materials Research Society of Thailand (MRS-Thailand). The success story of MRS-Thailand could be partly attributed to its' strong association with IUMRS as an adhering body member.

4.13.1 History of MRS-Thailand



Prof. Dr. Santi Maensiri

The materials research society of Thailand (MRS-Thailand) was founded on March 2, 2016 as a result of the vision shared by almost 200 materials scientists in Thailand who gathered at National Science and Technology Development Agency on that day. It was agreed that Thailand needed a new not-for-profit interdisciplinary organization to serve as a community for collaboration to advance materials research for sustainable development of Thailand. Professor Dr. Santi Maensiri was voted to be the first president of the society. Since March 2016, our society had many activities to promote productive collaboration between members in all materials disciplines from member institutions and entities, public and private, both inside and outside Thailand. On August 27, 2017, MRS Thailand Executives led by Professor Dr. Santi Maensiri attended the International Union of Materials Research Societies General Assembly meeting in Kyoto, Japan. At the meeting, the MRS Thailand was approved to be a member of IUMRS. And the society was officially approved to be one of the not-for-profit interdisciplinary organization societies in Thailand on December 6, 2017. So far, the society has grown to have 870 members of which 30 members serve on the committee for the society.

4.13.2 Headquarters office

National Science and Technology Development Agency (Yothee Office), 73/1, Rama 6 Road, Payathai, Ratchathewi, Bangkok, 10400, Thailand

Email: thailandmrs@gmail.com

Website: <http://www.mrsthailand.or.th/>

Facebook: www.facebook.com/MRSThailand

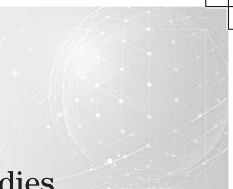
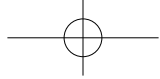
4.13.3 Mission:

The MRS-Thailand strives to

1. Enhance capacity building for young and early career scientists by implementing capacity building activities.
2. Promote productive collaboration between members in all disciplines from member institutions and entities, public and private, both inside and outside the country
3. Promote the advancement in materials research to increase competitiveness of Thailand

4.13.4 The objectives of MRS-Thailand are as follows

1. To support the development across all fields of materials science, including materials engineering and innovative materials.
2. To be a hub for providing technical training and the dissemination of knowledge in materials science, materials engineering and innovation.
3. To promote an active cooperation between member institutions and entities (public and private), both inside and outside of Thailand.
4. To respect and glorify scientific researchers, engineers and innovators working in the fields



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of materials science and innovative materials.

5. To work in partnership with charities and nonprofit organizations, and facilitate collaborations for public benefit service provision.

4.13.5 MRS-Thailand as a member of IUMRS

On August 27, 2017, MRS Thailand Executives led by Professor Santi Maensiri attended the International Union of Materials Research Societies General Assembly meeting in Kyoto, Japan. At the meeting, the MRS Thailand was approved to be a member of IUMRS.



Picture 1: IUMRS General Assembly meeting, August 27- September 1, 2017, Kyoto, Japan

4.13.6 Conferences hosted by MRS-Thailand:

1. The First Materials Research Society of Thailand International Conference (1st MRS Thailand International Conference), Convention Center, The Empress Hotel, Chiang Mai, Thailand. October 31 - November 3, 2017.



Picture 2: The First Materials Research Society of Thailand International Conference at the Convention Center, The Empress Hotel, Chiang Mai, Thailand, October 31- November 3, 2017

The conference was organized by MRS-Thailand and Chiang Mai University, together with academic agencies, public and private organizations. It was our first official international conference having about 1,200 participants attending the conference. The main purpose of this conference was to exchange knowledge, new ideas and innovative technologies from researchers

with the expertise in materials science both domestically and internationally. With contribution from hundreds of volunteers, we managed to organize 20 symposia covering all materials research fields including Emerging Solar PV, Energy Storage Materials, Graphene and Carbon Materials, Thermoelectrics, Dielectrics, Piezoelectrics, Ferroelectrics, Superconductors and Energy Harvesting Materials, Magnetic Materials and Their Applications, Materials Joining and Additive Manufacturing Technology, Ceramic and Glass Technology, Polymer, Rubber, Plastics and Bioplastics, Biomaterials and Applications, Sensors, Organic Electronics and Printed Electronics, Metal, Material Pro-



cessing and Corrosion, Composites and Construction Materials, Computational Material Sciences, Surface Sciences, Tribology and Thin Film Technology, Catalyst and Materials Chemistry for Green Environment, Instrumentation and Material Characterization, Synchrotron Radiation and Applications on Material Sciences, Material Education in 21st Century, and Material Enterprises and Industries.

2. The 2nd Materials Research Society of Thailand International Conference (MRS-Thailand 2019), The Zign Hotel, Pattaya, Thailand, July 10 - 12, 2019.



Picture 3: The 2nd Materials Research Society of Thailand International Conference (MRS-Thailand 2019) at the Zign Hotel, Pattaya, Thailand, July 10 - 12, 2019

The MRS-Thailand 2019 included plenary sessions with 6 famous scientists and 20 keynote lectures on specific fields. The conference aimed to provide platform for the sharing of knowledge and experience of materials scientists from within and outside the country. Seventeen symposia were organized including Emerging Solar PV, Energy Storage Materials and

Energy Harvesting Materials, Graphene and Carbon Materials, Dielectrics, Piezoelectrics, Ferroelectrics, Thermo-electrics and Superconductors, Magnetic Materials and Their Applications, Materials in Design Manufacturing and Applications, Ceramic and Glass Technology, Polymers/Rubber/ Bioplastics/colloid and emulsion, Biomaterials and Applications, Sensors, Organic Electronics and Printed Electronics, Composites and Construction Materials, Computational Material Sciences, Surface Sciences, Tribology and Thin Film Technology, Catalyst and Materials Chemistry for Green Environment, Instrumentation and Advanced Material Characterization, Material Enterprises and Industries, Rheology, and Quantum Materials and Technologies. Nearly 700 participants attended the conference.

Within, International Conference of Materials Research Society of Thailand views as a very important to the country. Thailand needs to rely on technology in materials science, which is one of the four branches of technology that has been identified as a core technology for long-term national development in the next 20 years. Advances in materials science are crucial for supporting Thailand 4.0 model which focuses on seven new industry areas including robotics, aviation, logistics, biofuels, biochemical, digital and medical industry. They aimed to serve as the new growth engines for Thailand.

The Materials Research Society of Thailand recognized that the success in science comes through collaboration. And it is time to organize conferences to serve as platform for initiation of new collaborations and strengthening the existing ones, which are the 21st International Union of Materials Research Society – International Conference in Asia 2020 (IUMRS-2020), to be held on February 23– 26, 2021 at the Convention Center, The Empress Hotel, Chiang Mai, Thailand and The 12th Asian Meeting on Ferroelectricity- The 12th Asian Meeting on Electroceramics (AMF-AMEC 2021) to be held on July 6 - 9, 2021, Pattaya, Thailand.

IUMRS-ICA 2020 & MRS-Thailand 2021

The 21st International Union of Materials Research Societies - International Conference in Asia (IUMRS-ICA 2020)

23rd – 26th February 2021
The Empress Convention Centre, Chiang Mai, Thailand

Symposia

- A. Electronic and Optical Materials**
 - A1. Advanced Ferroic Materials (Piezoelectrics, Ferroic Materials)
 - A2. Photonic Materials and Applications
 - A3. Thermoelectric Materials and Devices
 - A4. Quantum Materials and Technology
- B. Energy and Environment Materials**
 - B1. Catalyst Materials
 - B2. Emerging Solar PV
 - B3. Energy Storage (Batteries and Supercapacitors)
- C. Bioplastics, Biomaterials and Medical Devices**
 - C1. Biomaterials for Regenerative Medicine and Tissue Engineering
 - C2. Biosensing and Medical Devices
 - C3. Functional Nanomaterials for Therapeutic Delivery, Diagnosis, and Detection
 - C4. Bio-based and Biodegradable Materials and Applications
- D. Advanced Functional Materials**
 - D1. Advanced Carbon Materials (Graphene and Carbon Materials)
 - D2. Magnetic Materials and Applications
 - D3. Advanced Ceramic Materials (Ceramic and Glass Technology)
 - D4. Advanced Polymeric Materials (Rubber, Plastics)
- E. Advanced Structural Materials**
 - E1. Composites and Construction Materials
 - E2. Metal, Material Processing and Corrosion
 - E3. Materials Joining and Additive Manufacturing Technology
- F. Computational Materials Science, Modeling & Simulation**
 - F1. Modelling of Materials Structure, Defects and Properties
 - F2. Data-driven Materials Discovery and Design
 - F3. Computational Catalysis and Materials for Energy and Environment
- G. Advanced Fabrication, Characterization & Devices**
 - G1. Sensors, Printed Electronics
 - G2. Thin-film and Tribology Technology
- H. Instrumentation and Materials Characterization**
 - H1. Synchrotron Radiation and Applications
 - H2. Novel Methods of Material Characterization
- I. Special Symposium**
 - I1. Material Enterprises and Industries
 - I2. Symposium in Recognition of Lifetime Achievement of Prof. Dr. Vittaya Amornkitbamrung
- R. Rheology**
 - R1. Rheology

Plenary Speakers

- Professor Dr. Ronald G. Larson, Department of Chemical Engineering, University of Michigan, USA
- Professor Dr. Sergey Nazhin, Institute of Energy, Chemistry, University of Cologne, Germany
- Professor Dr. Oswald Nsofor de Oliveira Junior, Institute of Physics of the Carlos Chagas Filho Physics Dept., University of São Paulo, Brazil
- Professor Dr. Brian J. Tighe, School of Engineering and Applied Science, Aston University, UK
- Dr. Jeroen Morris, Senior Vice President and Chief Technology Officer, Amgen, Technology, USA
- Prof. Dr. Vittaya Amornkitbamrung, Khon Kaen University, Thailand

Important Dates

August	20 th , 2020	Abstract Submission Open
December	22 nd , 2020	Abstract Submission Deadline***
December	30 th , 2020	Notification of Abstract Acceptance***
January	22 nd , 2021	Early Bird Registration Deadline***
February	22 nd , 2021	Regular Registration Deadline
February	23 rd - 25 th , 2021	Conference Dates
February	27 th - March 6 th , 2021	Full Paper Submission

Keynote Speakers

- A1. Prof. Dr. Supon Ananta
- A2. Asst. Prof. Dr. Muhammad Faryed
- A2. Prof. Dr. Arif Engin Cetin
- B1. Assoc. Prof. Dr. Ning Yan
- B1. Prof. Dr. Weimin Cao
- B3. Dr. Adisorn Tuatranont
- C1. Dr. Anisa Mahomed
- C1. Assoc. Prof. Dr. Voravee P.Hoven
- C2. Prof. Dr. Peter A. Lieberzeit
- C3. Prof. Dr. Sawalban Chirachanchai
- C4. Assoc. Prof. Dr. Taweechai Amornskichai
- D2. Assoc. Prof. Dr. Phimpfaka Harding
- D3. Prof. Dr. Reinhard Conradt
- D4. Prof. Dr. Takao Kaneho
- E1. Assoc. Prof. Dr. Thanakorn Pheeraphan
- E2. Prof. Dr. Kenji Matsuda
- E3. Dr. Ekkanut Vivanit
- E3. Assoc. Prof. Dr. Boonrat Lohwongwatana
- F3. Prof. Dr. Ruiqin Zhang
- F3. Assoc. Prof. Dr. U. Deva Priyakumar
- G4. Prof. Dr. Toshihide Kamata
- H1. Dr. Christian Morawe
- H2. Assoc. Prof. Dr. Panomsak Meemon
- I2. Prof. Dr. Vittaya Amornkitbamrung
- R1. Assoc. Prof. Dr. Ruri Hidiema

Invited Speakers

- A1. Assoc. Prof. Dr. Arnon Chaipanich
- A1. Prof. Dr. Dae Yong Jeong
- A2. Dr. Khwanicha Tantawanichapan
- A2. Dr. Waleed Mohammed
- A3. Dr. Athorn Vora-ud
- A3. Dr. Kunchit Singsoog
- A3. Asst. Prof. Kongphop Chaarmart
- B1. Prof. Dr. Tawan Sooknoi
- B1. Prof. Dr. Dongsong Zheng
- B1. Assoc. Prof. Dr. Thongthai Witton
- B2. Dr. Pisit Kumrorkaew
- B2. Prof. Dr. Yixin Zhao
- B3. Dr. Thanya Phraewphiphat
- C1. Asst. Prof. Dr. Patchara Punyamoongwongsa
- C1. Asst. Prof. Dr. Runglawan Somsunan
- C2. Prof. Dr. Orawon Chailapakul
- C2. Prof. Dr. Shigeori Takenaka
- C4. Assoc. Prof. Dr. Panya Sunintaboon
- D1. Prof. Dr. Hidehiro Sakurai
- D2. Asst. Prof. Dr. Jessada Chureemart
- D3. Prof. Dr. Hong Joo Kim
- D4. Prof. Dr. Syuji Fujii
- D4. Assoc. Prof. Dr. Khamphoo Phomphrai
- E1. Assoc. Prof. Dr. Kamonpan Pengpat
- E2. Dr. Namurata Palsson
- E2. Dr. Hiren Koladia
- E3. Dr. Sinthu Chanthapan
- E3. Asst. Prof. Dr. Chedtha Puncreobutr
- F1. Asst. Prof. Dr. Thanayut Kaewmaraya
- F1. Assoc. Prof. Dr. Theerapong Puangmai
- F3. Dr. Kaito Takahashi
- F3. Prof. Ming-Kang (Brack) Tsai
- F3. Dr. Nongnuch Artrith
- G1. Assoc. Prof. Dr. Chalkarn Liewhiran
- G1. Dr. Anurat Wisitsoraat
- G2. Asst. Prof. Dr. Arlit Chingsungnoen
- G2. Dr. Annop Klamchuen
- H1. Dr. Goh Boon Tong
- H1. Dr. Phakkhanan Pakawanit
- H2. Dr. Natthapong Wongdamern
- R1. Prof. Dr. Guan Chen
- R1. Asst. Prof. Dr. Jaewook Nam

Co-Organizers

Conference Website: <http://iumrs-ica2020.com>
 Conference Email: iumrs.ica2020@gmail.com

Picture 4: Posters of The 21st International Union of Materials Research Societies – International Conference in Asia 2020 (IUMRS-ICA 2020) to be held on February 23 – 26, 2021 at the Convention Center, The Empress Hotel, Chiang Mai, Thailand



International Union of
Materials Research Society (IUMRS)

**First Announcement
and Call for Abstracts**

Abstract submission open November 1st, 2020



AMF-AMEC 2021
July 6th – 9th, 2021
Dusit Thani Pattaya, Thailand
<http://www.materialsthailand.org>

AMF-12: The 12th Asian Meeting on Ferroelectricity
AMEC-12: The 12th Asian Meeting on Electroceramics

Symposiums:

- A-1 Ferroelectrics and Related Materials
- A-2 Novel Processing and Characterization Techniques
- A-3 Functional Ceramic Materials and Applications
- A-4 Processing and Applications of Thin Films
- A-5 Dielectric Applications
- A-6 Piezoelectric Applications
- A-7 Quantum Technology
- A-8 Sensor and Actuator
- A-9 Future Energy Materials
- A-10 Computation and Modeling

Organizers:
Chulalongkorn University
Suranaree University of Technology
Materials Research Society of Thailand
National Metal and Materials Technology Center

Important Dates:

Abstract Submission Deadline	March 31 st , 2021
Notification of Abstract Acceptance	May 15 th , 2021
Early Bird Registration	May 31 st , 2021
Full Paper Submission Deadline	July 9 th , 2021

Registration Fee:

Participant types	Early bird (USD)	Normal (USD)
Regular	550	650
Regular (MRS-Thailand Member)	400	500
Student	250	350
Student (MRS-Thailand Member)	200	300
Accompanying Person	250	350

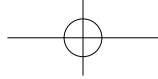
Registration fees includes: All lunches, All Breaks and Conference Banquet.

Conference Secretariat:
National Metal and Materials Technology Center
114 Thailand Science Park, Pahonyothin Road
Khlong Nueng, Khlong Luang, Pathum Thani 12120, Thailand

+66-2564-6500 ext. 4679-4680
materialsthailand@mtec.or.th

Picture 5: Poster of The 12th Asian Meeting on Ferroelectricity-Asian Meeting on Electroceramics (AMF-AMEC 2021) to be held on July 6 - 9, 2021, Pattaya, Thailand

Moreover, the Materials Research Society of Thailand has planned to create a scientific journal under the name- Science and Innovation of Advanced Materials (SIAM), with Prof. Dr. Santi Maensiri as an editor in chief. The first volume will be published in 2021.



4.13.7 Participations of activities

MRS-Thailand joined the activities and conferences both in Thailand and abroad to create a network and made MRS-Thailand well known.

Domestic activities participation of MRS-Thailand

1. MRS-Thailand co-hosted the 9th International Conference on Materials Science and Technology (MSAT-9), December, 14-15, 2016 at Swissotel Le Concord, Bangkok, Thailand and we also had The 1st Annual meeting of MRS-Thailand, on December 14, 2016.



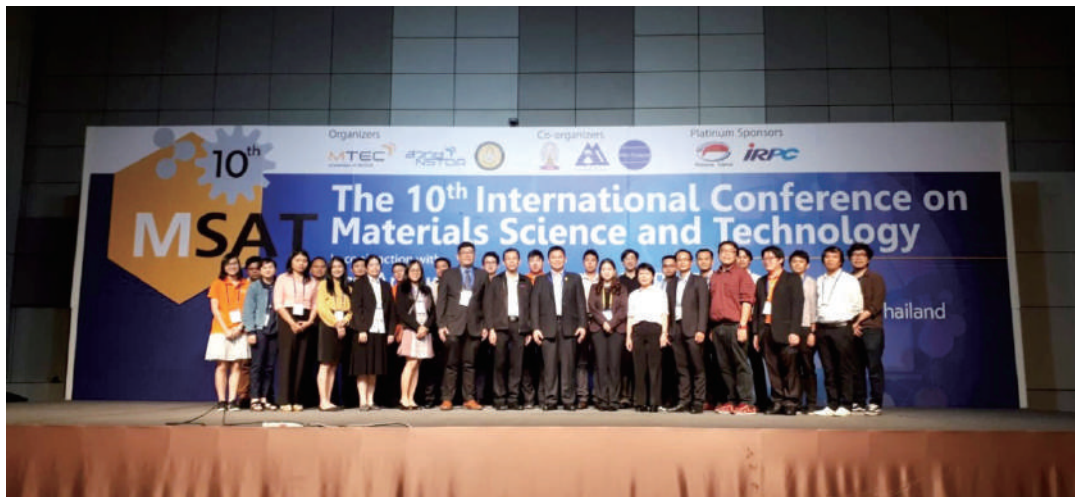
(a)



(b)

Pictures 7: MRS-Thailand co-hosted (a) the International Conference on Materials Science and Technology (MSAT-9) and (b) MRS-Thailand 1st Annual meeting, December 14-15, 2016, Swissotel Le Concord, Bangkok, Thailand

2. MRS-Thailand co-hosted the 10th International Conference on Materials Science and Technology (MSAT-10), September 6-7, 2017 at Bangkok International Trade & Exhibition Centre: BITEC, Bangkok, Thailand and we also had The 2nd Annual meeting of MRS-Thailand, on September 6, 2018



Picture 8: MRS-Thailand co-hosted the International Conference on Materials Science and Technology (MSAT-10) and MRS-Thailand 2nd Annual meeting, September 6 - 7, 2017, BITEC, Bangkok, Thailand



Participations of overseas activities

1. MRS-Thailand committees joined the International Union of Materials Research Societies International Conference in Asia (IUMRS-ICA 2016), October 20-24, 2016, Rizhao, Shandong, China



Picture 10 & 11: attended 17th IUMRS International Conference in Asia (IUMRS-ICA 2016), Shandong, China

2. MRS-Thailand Committee members observed the International Union of Materials Research Societies (IUMRS) Executive Council meeting and the 2016 IUMRS General Assembly, July 3 - 4, 2016, Singapore

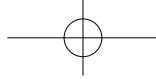


Picture 9: Committee members of MRS-Thailand observed the IUMRS General Assembly, 2016, Singapore

3. MRS-Thailand committees joined the International Union of Materials Research Societies General Assembly, August 27 - September 1, 2017, Kyoto, Japan. MRS-Thailand was certified as a member of IUMRS.



Picture 10: MRS-Thailand committee members attended the IUMRS General Assembly, Kyoto, Japan.



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4. MRS -Thailand president attended the 1st Materials Research Society of Indonesia Conference, October 8-12, 2017, Yogyakarta, Indonesia



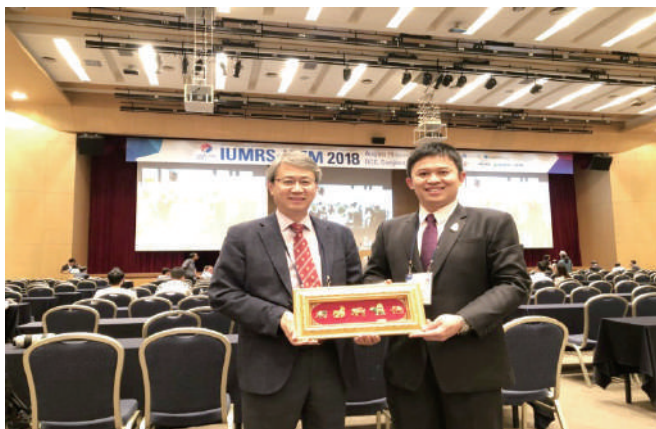
Picture 11: MRS-Thailand president attended the MRS-INA Conference and Congress 2017

5. MRS -Thailand president attended the International Union of Materials Research Societies International Conference in Asia (IUMRS-ICA), November 5 -7, 2017, Taipei, Taiwan



Pictures12: MRS-Thailand president attended IUMRS-ICA 2017, Taipei, Taiwan

6. MRS Thailand president attended International Union of Materials Research Societies International Conference on Electronic Materials 2018 (IUMRS-ICEM), Daejeon, Korea



Pictures13: MRS-Thailand president attended the IUMRS General Assembly (IUMRS-ICEM 2018)





4.14 MRS-Taiwan

Statement about MRS-T



Dr. Alex YM Peng

The current president of MRS-T is Dr. Alex YM Peng, who is also the vice president of Industry Technology Research Institute. The term for the MRS-T presidency is two years, and it can be re-elected once.

The Materials Research Society-Taiwan (MRS-T) was founded with the official name of “The Chinese Society for Materials Science (CSMS)” by Chih-Houng Lu of National Taiwan University, James C. M. Li (then at Edgar C. Bain Laboratory and later moved to University of Rochester), and some other mechanical and metallurgical pioneer engineering people in September, 1968. Prof. Lu, who was educated and trained as a metallurgist in Japan and served as the president of National Taiwan University during August 1946 to April 1948, was elected as the first president of the society. The Chinese name of CSMS has been used domestically since it was founded. However, as a founding adhering body of IUMRS, the name of “MRS-T” was adopted to participate in international activities in order to differentiate from C-MRS. It was not until 2008 that the official English name of CSMS was changed to MRS-T to avoid confusion.

Since there has been a fast growth and expansion of high-tech industries, such as IC, IT, TFT-LCD, LED, solar cells, etc. in Taiwan since the 1980s, there is a high demand of manpower in materials science (MS). This leads to expansion of MS programs in the universities. In addition to materials science and engineering departments, most traditional chemical engineering departments have been recently transformed to chemical engineering and materials science departments to train students with materials science knowledge. This makes the number of MS-related departments increasing to more than 50 in Taiwan, probably the highest density in the world. Currently, MRS-T has more than 1700 individual members and nearly 100 group members. It has served as a platform to link industry, academia, and government together to promote the R&D of materials science in Taiwan. Since it was founded, MRS-T organizes an annual meeting every year. For example, MRS-T commemorated its 50th anniversary in 2018. More than 1000 papers (poster and oral) were presented, and more than 1200 people participated in the meeting.

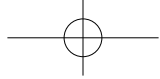
In addition to publishing professional books, magazines, journals, and web-based courses related to materials science, MRS-T has also been publishing an international journal “Materials Chemistry and Physics (MCP)” in cooperation with Elsevier since July, 1992. The wide distribution and high impact of MCP can be appreciated by the growth of impact factor from 0.78 in 2000 to 2.781 in 2018 and over 4000 submissions in the year of 2018. MRS-T has been closely working with IUMRS to promote international materials R&D activities. For instance, MRS-T has hosted ICA-1994, ICEM-1994 & ICEM-2014 and ICA-2004 & ICA-2011 & ICA-2017. It also plans to organize ICAM and ICEM in the near future.



Picture 1 The first general meeting of
MRS-T in 1968.



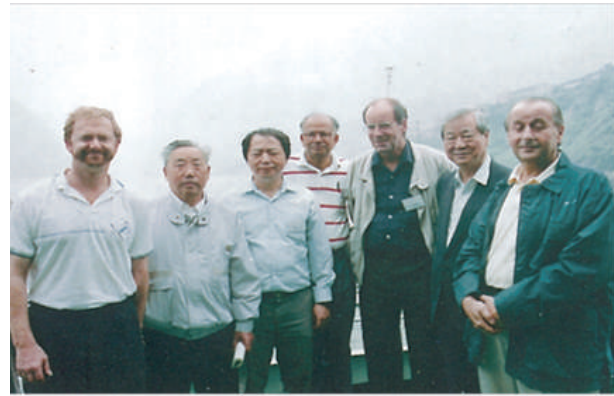
Picture 2 Founder and first president of
MRS-T, Prof. Chih-Houng Lu.



Chapter 4 Present Adhering Bodies



Picture 3 K. T. Li, Taiwan's architect of modern economic development and high-tech industries, received Lu Chih-Houng Memorial Award of MRS-T in 1990



Picture 4 Presidents of adhering members of IUMRS attending the first IUMRS-ICA held in a boat cruising along the Yangtze River in 1993



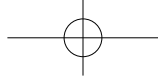
Picture 5 The second IUMRS-ICA hosted by MRS-T in Hsinchu, Taiwan, 1994



Picture 6 The IUMRS-ICEM-1994 hosted by MRS-T in Hsinchu, Taiwan



Picture 7 Opening ceremony of the IUMRS-ICA-2004 in Hsinchu, Taiwan



International Union of
Materials Research Society (IUMRS)



Picture 8: IUMRS ICA 2011 held in Taipei, Taiwan. Discussion (left) and delegates meeting (right).



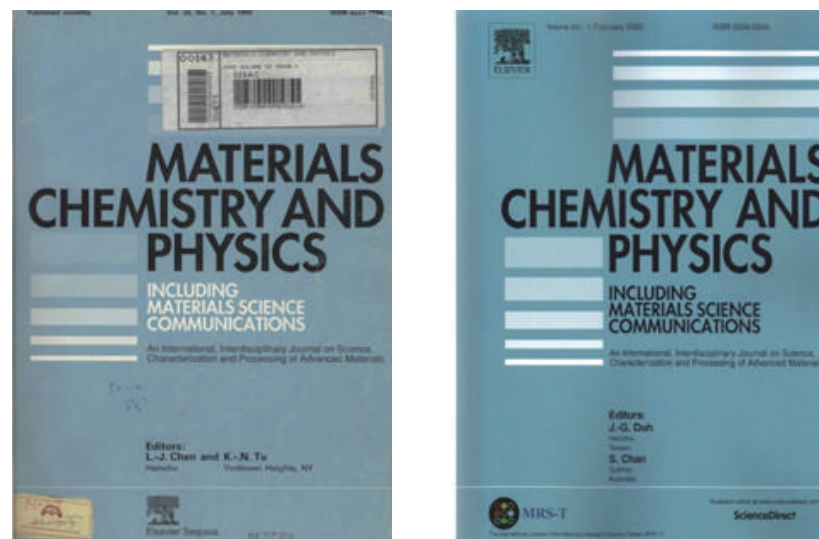
Picture 9: IUMRSICEM 2014 held in Taipei, Taiwan. Open ceremony (left) and GA delegates group photo (right).



Picture 10: IUMRS ICA 2017 held in Taipei, Taiwan. Plenary lecture (left) and young scholars awards ceremony (right).



Picture 11: The 50th anniversary ceremony of MTS-T in 2018. Past presidents of MRS-T forum after the open ceremony (left) and member delegates group photo (right).



Picture 12: The MCPjournal published jointly by MRS-T and Elsevier. The first issue published in July 1992 edited by L.-J. Chen and K.N. Tu (left). The recent issue published and edited by J.G. Duh and S. Chan (right).