MINUTES

4th MEETING OF THE BRICS WORKING GROUP ON MATERIALS SCIENCE AND NANOTECHNOLOGY

Cape Town, South Africa
22 - 24 November, 2022

1. Introduction

The 4th Meeting of the BRICS Working Group on Materials Science and Nanotechnology (hereinafter - WG on Materials Science and Nanotechnology) was held in accordance with the BRICS STI (Science, Technology and Innovation) Calendar of Activities 2021-2022, approved at the 9th BRICS STI Ministerial Meeting on 26 November, 2021, and the STI Work Plan 2019-2022, as well as Minutes of the 3rd Meeting of BRICS WG on Materials Science and Nanotechnology meeting 2021.

The 4th Meeting was hosted in a hybrid format (in-person and videoconference) by the Department of Science, and Innovation of South Africa.

A copy of the Administrative Circular, the final Agenda and the List of Participants of the meeting are attached in this document.

2. BRICS Policy Landscapes in Materials Science and Nanotechnology

During the 4th Meeting of the BRICS WG on Materials Science and Nanotechnology the BRICS partners shared research, development and innovation policies and roadmaps in their countries.

Policy landscapes covered research programmes in nanotechnology, training opportunities, research facilities and infrastructures in nanotechnology and materials sciences, including Nanotechnology Innovation Centres.

Detailed information of current joint projects and initiatives amongst the BRICS partners were presented on such topics as advanced ferroelectric and magnetic materials, research on LED lighting, battery research and carbon dioxide water-based adhesives, graphene innovation programme and technology-based innovation programmes such as CENTELHA in Brazil.

The BRICS partners also reflected put emphasis on human capital development, knowledge enrichment programmes and training opportunities for students, example of Soochow University scholarships, in Russia, was shared.

3. An overview of the BRICS Nano Centres

The Executive Secretariat elaborated on plans for the BRICS Network Centre for Materials Science and Nanotechnology (BRICS-NCMSN). The BRICS-NCMSN's objectives are to faster cooperation among the BRICS countries, promote training of scientists, and access to research infrastructure, obtain grants for research and sharing of information through a BRICS-NCMSN web portal.

To enhance activity of the National Focal Points responsible for the organizational work in BRICS-NCMSN identify several universities and/or scientific organizations from each country as the original participants of the Centre and send this information to the central office in the Ural Federal University, Yekaterinburg (UrFU). To develop the web portal with filling in information about all measurement facilities available for the use of members of BRICS-NCMNS.

Other BRICS country agencies such as the Mintek and CSIR, Ural Federal University, institutes of the Chinese Academy of Sciences and SisNano would form part of the network.

4. BRICS Joint Calls on Science and Technology

During the 4th Meeting of the BRICS WG on Materials Science and Nanotechnology an overview of the Joint Calls and Flagship call mechanisms

and processes was shared, and the members of the Secretariat presented the results of the current call and projects.

The working group learned about successful joint project involving BRICS partners in the field of materials science and nanotechnology for addressing environmental, climate change, agriculture, food and energy issues.

5. RDI Initiatives and Commercialisation programmes

The BRICS WG on Materials Science and Nanotechnology has put emphasis on research, innovation and commercialization programmes, which will part of the focus areas in developing joint programmes.

As such the BRICS WG on Materials Science and Nanotechnology proposed a follow up workshop be convened in 2023 to discuss further modalities to be explored regarding experiences in technology transfer and commercialization models to enhance the promotion start-ups.

The BRICS WG on Materials Science and Nanotechnology proposed that the five BRICS countries explore developing a joint project for submission during the next flagship call. The scientists would work together to identify a common area of interest, mutually beneficial to the BRICS partners.

6. Announcements

The BRICS WG on Materials Science and Nanotechnology members were invited to the International Conference on Materials Science and Nanotechnology that will take place in Yekaterinburg, Russia in August 2023.

7. Way Forward

The BRICS WG on Materials Science and Nanotechnology expresses appreciation to China for organizing the 5th Meeting of the BRICS WG on Materials Science and Nanotechnology in 2023. Dates and venue shall be decided by the host in consultation with other members of the BRICS WG. The 6th meeting will be held in 2024 in Russia.

The BRICS WG on Materials Science and Nanotechnology expresses its appreciation to South Africa for the organization of its 4th Meeting.