MINUTES
of the 6th Meeting of the BRICS Working Group
on Materials Science and Nanotechnology

Yekaterinburg, Russia

26-29 August 2024

Organizers:
Ministry of Science and Higher Education of the Russian Federation (MSHE) and Ural Federal University named after the first President of Russia B. Yeltsin.

The 6th Meeting of the BRICS Working Group on Materials Science and Nanotechnology (hereinafter – WG on MSN) was held in accordance with the BRICS STI (Science, Technology and Innovation) Calendar of Activities 2024, approved at the 11th BRICS STI Ministerial Meeting, as well as Minutes of the 5th Meeting of BRICS WG on MSN (November, 2023).

The 6th Meeting was hosted by the Ural Federal University named after the first President of Russia B. Yeltsin, Yekaterinburg, Russia, and was chaired by Prof. Vladimir Shur. The first time WG on MSN gathered in person and online the extended membership of the BRICS countries. Besides the working group meeting, the International Conference "Material Sciences and Nanotechnology" (MSN-2024) was hosted in parallel. A copy of the final Agenda and the List of Participants of the Meeting are attached in Annex I and Annex II respectively.

Working Group Discussion Topics:

- Update on Materials Science & Nanotechnology Policies and Opportunities for collaboration among BRICS Countries due to BRICS extension;
- Update on Network Center for Materials Science and Nanotechnology (BRICS-NCMSN). (Nominees as BRICS-NCMSN members, shared facilities, faculty exchange, etc.);
- BRICS Science, Technology and Innovation Framework Programme (Joint Calls and Funding Schemes);
- Discussion about the joint report on development of Materials Science & Nanotechnology in BRICS countries;
- Decision on venue for next meeting;
- Adoption of Minutes.

Several key proposals for cooperation were introduced during the Meeting:

- Launch of a series of online seminars focusing on priority aspects for each country of materials science and nanotechnology;
- Organization of workshops tailored to enhance skills and knowledge in nanotechnology and materials science in engagement with the industry;
- Establishment of an exchange program for BRICS researchers and students in the field of materials science and nanotechnology.
- Organization of visits for BRICS leading experts in materials science and nanotechnology to share knowledge and best practices.
- Hosting of an annual BRICS conference to showcase advances in the field, share research findings, and strengthen ties among BRICS nations.

Outcomes of the Discussion

The participants noted that the cooperation of universities, scientific and industrial organizations within the framework of the BRICS NCMSN is useful and promising. It is advisable to begin the exchange of scientists and researchers of members of the BRICS NCMSN.

The new members of the BRICS NCMSN from Egypt, Iran, the United Arab Emirates have been identified. The updated list of the BRICS NCMSN members as well as country coordinators is attached in the Annex III.

In context of new BRICS members:

The participants agreed that the BRICS contact points will provide the actual information on the national members of the BRICS Network Center for Materials Science and Nanotechnology.

Each BRICS country will provide the information (brief information on the organization, thematic areas, equipment, contacts etc.) till December 2024 to be published on the website of BRICS Network Center for Materials Science and Nanotechnology (BRICS NCMSN) (https://brics-ncmsn.com/) for optimal and efficient operation of the web-platform.

The Participants of the Meeting reconfirmed the research directions of the BRICS NCMSN: Environmental and agricultural issues; Advanced magnetic and ferroelectric materials; Materials for energy conversion and storage; Biomaterials and nanomedicine.

The delegates supported the UAE's proposal to add water technologies to the research directions. Thus, the final list of the BRICS NCMSN is as follows:

- Water technologies, Environmental resources and agricultural issues;
- Advanced magnetic and ferroelectric materials;
- Materials for energy conversion and storage;
- Biomaterials and nanomedicine.

The Meeting emphasized the need to provide additional information on national innovation activities within materials science and nanotechnology track and to consider possibility to include special sessions on innovation showcases within materials science and nanotechnology area during next Meetings of the WG aimed at fostering innovation cooperation of scientific and educations organizations.

The participants agreed on organizing regular scientific conferences in hybrid format and online seminars on priority research directions to facilitate the participation of representatives of BRICS countries.

The delegates supported the proposal of Iran to organize an online seminar on nanomedicine till the end of the year.

The Meeting agreed to support the participation of students, graduate students and young scientists in international scientific schools organized by the members of the BRICS-NCMSN.

The participants noted the importance of publishing the announcements of the upcoming scientific conferences, seminars and scientific schools and results of successive collaboration between the members of BRICS NCMSN on the website and to present the information at the next WG meeting.

The delegates proposed to consider the possibility to create the **BRICS nanomaterials society.**

The participants supported the Brazilian proposal to hold the next 7th Meeting of the BRICS WG on MSN in Brazil in October of 2025 under the Brazilian chairmanship in BRICS in 2025. The initial proposal was to hold the Meeting of WG on MSN in parallel with the 23rd Brazilian Materials Research Society (B-MRS) Meeting from September 28 to October 2, 2025 in Salvador. The exact dates and location will be determined later by the host party.

The opinion was expressed that the cooperation of universities, scientific and industrial organizations within the framework of the BRICS-NCMSN is useful and promising. It is advisable to begin the exchange of scientists and researchers of members of the BRICS NCMSN.

The heads of the BRICS countries delegations noted the success of the meeting, expresses its appreciation to Russia for the organization of 6th Meeting of BRICS WG on MSN, approved the work of the secretariat of the BRICS JSC and called for the fastest realization of the plans.