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Konstantin V. Rudenko
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Introduction

The volume contains selected papers presented at the 14th International Conference "Micro- and Nanoelectronics – 2021" (ICMNE-2021) which has been held in Zvenigirod, Moscow Region, Russia during October 4-8, 2021. ICMNE is a biannual conference covering the main fields of micro- and nanoelectronic technologies and device physics. Since 1992 the Valiev Institute of Physics and Technology of Russian Academy of Sciences (Moscow, Russia) is the permanent organizer of ICMNE. From 2003 ICMNE is an SPIE-affiliated conference. ICMNE-2021 included the Extended Session "Quantum Informatics-2021". Overall scope contained such scientific and technological fields as physics and technologies of micro- and nanodevices, simulation and modeling, MEMS physics and technology, materials and films for micro- and nanoelectronics, metrology, quantum informatics. For the first time, a hybrid online/offline participation format was used for ICMNE conferences. The conference included three plenary sessions and 23 topical sessions covering the following areas of focus:

- Emerging Devices
- Beyond CMOS
- Advances in Electron Beam Lithography
- Memory: Structures & Devices
- BEOL Materials & Processes
- Emerging Materials
- THz Devices
- Optoelectronic materials & Devices
- Ultrathin Films Growth
- Superconducting Effects & Devices
- Plasma Processes & Diagnostics
- Device Modeling & Simulation
- Magnetic Materials & Structures
- MEMS Technologies & Devices
- Microelectronic Metrology
- Quantum Informatics

The scientific program was based on invited and contributed papers from the scientists employed at European and Siberian Regions of Russia, Belarus, Austria, France, UK, Israel, China, Japan, USA, and Canada. The contributions to the sessions of the Conference were made by academic institutions, universities as well as from the industry. Near 120 contributions were discussed at oral presentations; about 100 others were presented as posters. We hope that helpful discussions of these works at the sessions of the Conference and during personal contacts between attendees will promote the research activity in microelectronic community. Additional information about ICMNE-2021 can be found at the conference website http://www. icmne.ftian.ru

Vladimir F. Lukichev