5+1 International Meeting for Researchers in Materials and Plasma Technology (5+1 IMRMPT)

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These proceedings present the written contributions of the participants of the 5+1 International Meeting for Researchers in Materials and Plasma Technology (5th IMRMPT) which was held from 2 to May 4, 2021, at the Medellín city, Colombia, organized by the Foundation Of Researchers In Science and Technology Of Materials (FORISTOM); this was the 5+1 version of biennial meetings that began in 2011. The proceedings consist of 81 contributions that were presented as talks at the conference; the abstracts of all participants’ contributions were published in the Abstract Book with ISSN 2422-3824. The website of the conference is available at https://foristom.org/6imrmpt/index.html.

The scientific program of the 5+1 IMRMPT consisted of 12 Keynote Lectures and 129 Oral Presentations, with the participation of undergraduate and graduate students, professors, researchers, and entrepreneurs from Colombia, Spain, Mexico, Uruguay, Brazil, Venezuela, among others. Moreover, the objective of IMRMPT is to bring together national and international researchers in order to strengthen the Materials Science, Engineering and Nanotechnology Researchers Network of scientific cooperation with a global impact; to promote the exchange of creative ideas and the effective transfer of scientific knowledge, from basic research to develop technology or to the innovation, applied to industrial solutions with the purpose of increase the lifetime of the materials.

All papers in these Proceedings refer to one of the following topics covered in the 5+1 IMRMPT: Additive Manufacturing; Characterization of Materials; Modelling, Simulation and Diagnostics, New Materials; Plasma Applications and Technologies; Renewable Energy; Structural Integrity; Surface Modification (Ion Implantation, Ion Nitriding, Sputtering, Sol-Gel, Thermal Spray, PVD, CVD); Thin Films and Nanomaterials; Wear and Corrosion/Oxidation; Non-Destructive Evaluation; Online Process Control; Education in Materials Science, Engineering and Technology; Science, Engineering, Technology and Innovation for Social Inclusion.

On behalf of the organizing committee of the 5+1 IMRMPT, we are extremely thankful to all authors and participants for providing their valuable contributions for these Proceedings as well as the reviewers for their constructive recommendations and criticism aiding to improve the presented articles. Besides, especially we appreciate the great support provided by the sponsors and partners, for making possible this new version of the international meeting of researchers, allowing us to continue with the dream of strengthening and contributing to research, technological development, and innovation in the present and future of Colombia.
On the other hand, it is very important to note that the event organized by the FORISTOM foundation is a very significant contribution to the national and international scientific community, achieving the universal interaction of the different research groups of the sector academia and business sector of Colombia with other countries.

Finally, the editor hopes that those interested in the area of Materials and Plasma for Science, Engineering, and Technology can enjoy this reading, of the volume of the Journal of Physics: Conference Series (JPCS), which reflects a wide variety of current issues.

“Education and expression freedom for anyone”.

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