

## PREFACE

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From December 1st to 4th, 2022, the 3rd International Conference “Gas-discharge plasma and synthesis of nanostructures” took place in Kazan, hosted by Kazan National Research Technical University named after A.N. Tupolev—KAI. The conference was held in a hybrid format, combining in-person and online participation. Approximately 200 scientific presentations were delivered by researchers from scientific institutions and universities in Kazan, Moscow, St. Petersburg, Tomsk, Novosibirsk, Omsk, Ivanovo, and Yaroslavl. Online presentations were also given by scientists from Tajikistan, Kazakhstan, and China. Representatives from industrial enterprises attended the conference, emphasizing the importance of collaboration between academia and business.

The conference commenced with an opening address and keynote presentation on the conference’s objectives and goals, delivered by the conference chairman, Boris Akhunovich Timerkaev, head of the

Department of General Physics at KNRTU-KAI, Corresponding Member of the Academy of Sciences of the Republic of Tatarstan, Professor, and Doctor of Physical and Mathematical Sciences.

The conference covered fundamental, problem-oriented, and applied aspects of electrical discharges in gases. Extensive theoretical and experimental research results were presented, along with new plasma technologies and plasma nanotechnologies. The primary focus of the conference was on the application of gas discharge plasma for nanosynthesis.

In this special issue of the journal “High Energy Chemistry”, the conference organizing committee has published selected scientific reports dedicated to plasma chemistry issues. The issue was prepared and edited under the guidance of Vladimir Fedorovich Razumov, Boris Akhunovich Timerkaev, Ilnaz Izailovich Fairushin, and Artem Olegovich Sofronitsky.