

**Dear colleagues,**

Spring is here at long last. It looks like even the weather was waiting out Covid-19 and didn't let the snow melt for a long time. Who knows, it's possible that one day these words from the editorial will help retrace the stages of climate change on our planet... The majority of Covid-related restrictions have finally been lifted, and even our veterans can come back home to the Institute. While we continue to exercise proper care and keep on wearing masks, it would appear that the Covid scare has passed. At long last, we are starting off the new season by publishing the first 2021 issue.

The General Assembly of the Russian Academy of Sciences was held in a mixed format: the great hall was partially filled by the members of the Academy who had either contracted Covid at some point or had been vaccinated. We had new losses but their number did not affect the overall statistics significantly, which means that the Academy's resistance to Covid turned out to be high. It just so happens, sadly, that the most needed and strong among us leave us.

In the beginning, by tradition, we observed a moment of silence, and after that, the General Assembly began to advance into the future. The official part went on with long-forgotten efficiency and positivity. We had several addresses by honored guests, present in abundance, including even a Deputy Foreign Affairs Minister whom no one expected to see. We hope that this attention from the authorities signifies an apology of sorts and an invitation to cooperation. Only recently, they have started the process of reforming the so-called "development institutes" that had been carefully and consistently created in the last ten years to replace many applied institutes which had sunk into oblivion. And just last week, we saw the theoretical basis for those reforms. "Komsomolskaya Pravda" has published an article with the snappy name "No Silicones, No Valley", presenting a thorough analysis of the significant funds that had been spent and less-than-significant achievements that those structures had to show for it. Not to gloat (and we're not), but let's focus instead on rather gently reproaching conclusions drawn about the results of those ten years. Compare the thundering prosecutorial speeches that justified the introduction of Law 253 concerning the reformation of the Academy. The Academy had been whipped most thoroughly, whereas here we have a gentle slap on the wrist delivered to the most beloved child. "Probably, we shouldn't have started building in the middle of nowhere. After all, silicon valleys are created around big scientific structures." The article is terrific—both in the analysis and in the expressed doubts regarding the chosen ideology. It's just a shame that the author couldn't bring himself to voice the logical conclusions. Logically, the article demonstrates that Silicon Valley should have been built around the institutes of the Academy and well-established universities, and not in the middle of nowhere. All the same, all those "Skolkovos" and "Rosnanos" are "buying" the gifted youth from the Academy, so the results they show are still coming from the same source. Better this way, though, than losing our young scientists to foreign countries.

Let's back to the General Assembly, however. The positive greetings served as a prelude to the report of the RAS President A. M. Sergeev. This report was much more substantial than last year. It presented a plethora of the most important achievements of each section, and every one of them deserved a detailed account. The report had taken four hours but was listened to with the utmost attention. A most piquant peculiarity of this Assembly was that, as fates would have it, President Putin's address to the Federal Assembly had been included in the program. Those two highly important events coincided in timing, and the organizers managed to include them both without any technical difficulties. A special meeting of the General Assembly was dedicated to the 60<sup>th</sup> anniversary of the first manned space flight, and it wasn't just any man, but our man, our Gagarin! Our colleagues-cosmonauts had come prepared and delivered highly informative reports. They included historical excursions, the Moon exploration program, and an original project of a new orbital space station that would circle the Earth on "our" orbits, meaning the orbits that would be of the most use to our country. Even the general schematics allow us to see that this will be a new generation space station that will encompass all the experience of the current International Space Station. It's important to note that the program of the station's development not only includes the creation of a separate science module but also enables the transformation of the station into a halfway space launch site for the lunar program. The lunar program was presented by the famous cosmonaut V. A. Soloviev, the corresponding member of the RAS, a man for whom space is a native environment. The program creates the impression of being a well-thought-out strategy for years to come. Additionally, he compared the exploration programs, talked about the lunar geography and the stores of water at the poles, and even mentioned the prospect of creating plasma engines... It invoked the usual sense of pride of our colleagues, who, despite various problems and financial scarcity, keep producing profound, fundamental work.

The assembly of the Division of Chemistry and Materials Sciences had more of a working-mode mood to it but was no less bright. In our more intimate chemical circle, we were able to fully appreciate the "cherry on top"—honor the 160<sup>th</sup> anniversary of N. D. Zelinsky by defining the mechanism of his famous reaction where he synthesized benzene from acetylene. The work conducted under the guidance of our International Advisory Board member and the full member of the RAS Valentine P. Ananikov was profound and convincing. Another member of our International Advisory Board and the full member of the RAS Vadim Yu. Kukushkin found a witty way of application of chlorine bonds—it turns out they could be successfully used to stabilize isocyanides while in storage, and that's just the beginning, because, as usual, understanding the nature of a phenomenon opens new horizons.

The report by the full member of the RAS M. P. Egorov (academician-secretary) providing a brief analysis of the nature of the achievements and the evaluation of their implications and prospects was a hit. And overall, the Division assembly had a pleasant aftertaste of the recent successful session of the assembly of the RAS Presidium "The

Chemistry of the 21<sup>st</sup> Century". In its course, the reports of M. P. Egorov and A. L. Maksimov had not merely mentioned the achievements but mostly focused on the problems of developing our chemistry complex, and the Chemistry Section members definitely feel themselves to be a part of it. The main idea was clear—we've exhausted all room for retreating and the only thing awaiting us further is the complete loss of identity on the world's chemical map. That torturously-arrived-at and well-supported-with-facts collective idea (the report had been previously presented to and approved by the Bureau of the Division) had united both sections as never before. Those were the important and motivating meetings and assemblies that had been held since the publication of the sixth issue of INEOS OPEN in 2020, and so we are entering the new season fully mobilized.

In full accordance with our plans and regulations, we have renewed the list of INEOS OPEN International Advisory Board to include well-known and active members of the Local Advisory Board: the full members of the RAS V. P. Ananikov and V. Yu. Kukushkin. New members will also join the Local Advisory Board. The invitations have already been accepted by P. V. Prikhodchenko (IGIC RAS), N. G. Sedush (NRC "Kurchatov Institute"), E. V. Agina (ISPM RAS), I. A. Balova (SBSU), and A. V. Piskunov (IOMC RAS). We hope that those additions will lead to the strengthening of our editorial policy, as well as to the broadening of the geography of articles and our readership.

The first issue is released just before the May holidays—a time that traditionally invokes inspiration and optimism in the people of our country. The editorial team shares this uplifting mood and wishes everyone to have great May holidays! PEACE, LABOR, MAY!

Sincerely yours,

**Editor-in-Chief**

**Prof., Full Member of RAS**

*Aziz M. Muzafarov*