

Preface

Natalia I. Ianchenko*

Foreword to the special issue dedicated to the 3rd Baikal International IUPAC Conference on chemistry of snow cover, atmospheric precipitation, aerosols and climate

<https://doi.org/10.1515/pac-2022-2014>

Keywords: Aerosols; atmospheric precipitation; chemistry and climate; snow cover.

*How many blissful revelations
The spirit of enlightenment hides!
And then experience born of lapses
And genius antinomy-wise
And chance, the heavenly inventor...¹*

Alexander Pushkin, 1829

It is my great pleasure and pleasant duty for me to introduce to the readers the Special Issue of PAC, dedicated to the third Baikal International Conference “Snow cover, atmospheric precipitation, aerosols: chemistry and climate”.

The conference has an interdisciplinary status and is dedicated to the study of the chemistry of snow cover, atmospheric precipitation, and Earth aerosols in the context of climate change. The main scientific directions of the conference were determined as: methods, means, methodology for studying the physical and chemical properties and composition of snow cover, atmospheric precipitation, aerosols; the influence of climate change, physical and chemical processes in the atmosphere and anthropogenic activity on the chemical composition of snow cover, precipitation, aerosols; modeling the study of climate change, chemical composition and physicochemical properties of snow cover, atmospheric precipitation, aerosols; the role of snow cover, atmospheric precipitation, aerosols in biogeochemical cycles and the cryosphere; chemical interaction of the oceans, the earth’s surface and the biosphere with snow cover, atmospheric precipitation, aerosols; assessment of the impact of snow cover, atmospheric precipitation, aerosols on natural, socio-economic systems and human health.

The topics discussed are consistent with the mission of the IUPAC organization, which provides objective scientific expertise and develops the essential tools for the application and communication of chemical knowledge for the benefit of humankind and the world.

The conference was held at the Irkutsk National Research Technical University located in the Baikal region in Siberia (Russia, Irkutsk, INRTU). We can say that the scientific and organizational goal of the

¹ Translated by Vadim Rouminsky: <https://www.multitrans.com/m.exe?a=116&UserName=Vadim+Rouminsky>.

Article note: Snow cover, atmospheric precipitation, aerosols: chemistry and climate: reports of the III Baikal international scientific conference endorsed by IUPAC (March 23–27, 2020).

***Corresponding author: Natalia Ianchenko**, Irkutsk National Research Technical University, 83, Lermontov St., 664074, Irkutsk, Russia, e-mail: fduecn@bk.ru

conference is to create a platform at INRTU for discussing modern knowledge about the chemistry of snow cover, atmospheric precipitation and aerosols in conditions of rapid climatic changes, as well as searching for forms of cooperation with representatives of science, industry, education and the public.

Before the start of the conference, in March 2020 in Irkutsk, a collection of materials was published. Among the conference participants, there are research scientists from the Russian Federation, Kazakhstan, China and Japan. The conference was planned to be held on March 23–27, 2020 in Listvyanka (lake Baikal), but due to quarantine restrictions, it was postponed to May 2021 and took place online on May 11–12, 2021 at INRTU. This speaks of our common desire to continue our research and share the results obtained with society. Since 2018, the Federal State Budgetary Institution Zapovednoye Pribaikalye (Irkutsk) has been providing active sponsorship, scientific and organizational support for the conference. The industrial partner of INRTU and the conference is RUSAL.

In total, 19 reports-presentations in Russian and English language were presented; the number of participants was 23, including 10 women. The number of co-authors of the reports-presentations – 41. The number of participating countries – 3. Duration of the live online broadcast – 14 h (May 11–12, 2021). The number of organizations that took part in face-to-face reports, including universities, research institutes and organizations – 20. The Program Committee included 8 men and 8 women from 3 countries.

At the end of the online meeting, the participants once again expressed their gratitude to the organizers of all countries, institutions, IUPAC and hope for scientific meetings at the next conference in Irkutsk and on the shores of Lake Baikal.