The twelfth international conference *Advanced ceramics and application*, organized by the Serbian Ceramic Society and the Institute of Technical Sciences SASA, with the support of the Ministry of Science, Technological Development and Innovation of the Republic of Serbia and the Serbian Academy of Sciences and Arts, was taking place in the period from September 18th to 20th, 2024. The Institute for Materials Testing, the Institute for General and Physical Chemistry, the Institute for Chemical Technology and Metallurgy, and the Institute for the Technology of Nuclear and Other Mineral Resources also took part in the organization of the conference. The companies Analysis, Altium International, MOL Institute and Hotel Palace also supported our scientific meeting. The conference was attended by representatives of the Serbian Academy of Sciences and Arts, representatives of the Ministry of Science, Technological Development and Innovation of the Republic of Serbia, conference participants, guests, colleagues, and friends. This year we had more than 100 participants from Serbia, Romania, Great Britain, Slovakia, Croatia, Germany, USA, Spain, Algeria and Slovenia. 15 plenary lectures, 22 invited lectures, 6 oral and 51 poster presentations were presented.

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Figure 1. ACA XII conference participants.

All presentations were divided into the following sections:

- modeling and simulation,
- nano, opto and bio ceramics,
- basic ceramics and sintering,
- amorphous and magnetic ceramics,
- clay, cements and refractory,
- renewable energy and composites,
- electrochemistry and catalysis,
- two poster sessions.

An interesting exhibition organized by Dr. Miljana Mirković and Aleksandra Rašović, entitled "*Utilizing green technologies to develop new cosmetic products*" attracted a lot of attention from the participants.



Figure 2. An exhibition of cosmetic products.

A Gala conference dinner was held in the Caruso restaurant, and a visit to the Nikola Tesla museum delighted our guests. Prof. Dr. Vera Petrović prepared her original heart-shaped ceramic gifts

to all the participants.



Figure 3. Hand-made ceramic gifts.

Dr. Nina Obradović, president of SCS, opened the ACA XII conference.



Figure 4. Dr. Nina Obradović, President of SCS

The participants were then greeted by Dr. Marina Soković, from the Ministry. A short musical program (two violins) was played by Mariana Peleš and Nikola Stanojević (1. Karl Jenkins - Palladio, Andrea Bocelli - Con te Partiro, and Astor Piaccola - Libertango), while Prof. Dr. Ljubica Cica Pavlović received the award of honorary member of SCS, for her contribution to materials science and long-term support of SCS.



Figure 5. Musicians Nikola Stanojević and Mariana Peleš.



Figure 6. Prof. Dr. Ljubica Cica Pavlović and Dr. Nina Obradović.

Academician Slobodan Vukosavić, secretary of the Department of Technical Sciences of SASA, held the first plenary lecture entitled *New materials in electrical grids and power industry*. Like every year, two prizes were awarded to the best oral and poster presentations, which include a diploma and paid registration fee for the next ACA conference. Steven Smith and Mariam Pogosova

are the winners of the awards for the best oral presentation, while Nenad Tadić and Marija Kovač are the winners of the awards for the best posters.



Figure 7. Academician Slobodan Vukosavić, full member of SASA.