All-Russian Conference “Electrochemistry and Ecology”

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The All-Russian Conference “Electrochemistry and Ecology” dedicated to the 80th anniversary of Professor Vladimir Aleksandrovich Smirnov, the Honored Scientist of the Russian Federation, Honored Chemist of the Russian Federation, member of the Russian Academy of Natural Sciences, Doctor of Chemistry was held in the campus of the South Russia State Technical University (former Novocherkassk Polytechnical Institute) on September 17–20, 2008. The subject of this conference was determined by the spectrum of scientific interests of Professor Smirnov.

The conference was characterized by a high level of scientific and technological subjects considered, benevolent and eager exchange of information between scientists of all ranks, from professors to graduates and students. In the conference, scientists from different Russian research centers took part, namely, from Moscow, Kazan', Chernogolovka, Novomoskovsk, Novocherkassk, Rostov-na-Donu, Yekaterinburg, Lipetzk, Voronezh, Nizhnii Novgorod, Saratov, Engels, Makhachkala, Novosibirsk, Krasnoyarsk.

More than 80 contributions (including plenary and section lectures and posters) were delivered in the following directions:

- electrochemistry of metals and alloys;
- corrosion and protection of metals;
- electrolytic oxidation: problems, methods, solutions;
- new composition materials;
- electrochemistry of organic compounds;
- environmental problems of industry and the methods of their solution;

In the Plenary Section, the prospects in the development of fundamental studies, electrochemical technologies, and the methods of solving different environmental problems were considered by the leading scientists from research institutes of the Russian Academy of Sciences (RAS), various industrial institutes, plants, and universities. Thus A.G. Krivenko (Institute of Problems of Chemical Physics, RAS, Chernogolovka) surveyed the recent advances in electrochemistry of nanostructured carbon. In their lectures, A.P. Tomilov and V.V. Turygin (State Research Institute of Organic Chemistry and Technology, Moscow) spoke of the prospects of using electrochemical methods in the development of low-waste industries. Professor L.N. Fesenko (Director General of OOO NPP “EKOSES”, Novocherkassk) summarized the experience in using electrochemical methods in the technology of cleaning

natural and industrial water. Professor Z.M. Aliev (Dagestan State University, Makhachkala) presented the theoretical basics and the priorities of practical use of electrolyses that involve gaseous substances under pressure. Investigations on the electrochemical radical amination of aromatic compounds, carried out in the Butlerov Chemical Institute of the Kazan' State University, were reviewed by Yu.A. Lisitsyn. Professor S.S. Popova (Engels Technological Institute – Branch of Saratov State Technical University, Engels) and Zh.I. Besspalova (South Russia State Technical University, Novocherkassk) discussed the peculiarities of synthesis of new composition coatings. The lecture by Professor T.N. Ostanina (Ural State Technical University – Ural Polytechnical Institute, Yekaterinburg) was devoted to the problems of anodic dissolution of magnesium; A.A. Stepanov (Nesmeyanov Institute of Organoelement Compounds, RAS, Moscow) presented a new method of electrochemical activation of natural molybdenum disulfide. N.V. Smirnova discussed the studies of electrochemical properties of nitroxyl radicals, carried out in the South Russia Technical University under supervision of Professor E.Sh. Kagan; attention was focused on catalysts for low-temperature fuel cells.

Some presentations were delivered with the aim of familiarizing the electrochemical audience with environmental problems of the coal industry in Donetsk coal fields.

Participants of the conference highly appreciated the organization level of the All-Russian Conference “Electrochemistry and Ecology”.

In the discussions, it was noted that although many conferences of different levels are being held in the Russian Federation in the field of applied and theoretical electrochemistry, they usually ignore the environmental problems. It was stated that environmental aspects of electrochemical and chemical technologies and also in all fields of human activity should be included into the programs of next conferences. It is beyond doubt that such an approach will substantially extend the audience and geography of future conferences.

During the discussions, the participants stressed the benefits and the necessity of holding regular (every four years) conferences of this kind in different regions of the South Federal District and appealed to the leaders of the Dagestan State University with the proposition to carry out the conference–2012 in Makhachkala.

*Professor A. P. Tomilov,
Professor A. G. Krivenko*