Editor's page

Dejan U. Skala
Editor–in–Chief

Several papers of this issue of Chemical Industry Journal were prepared to introduce our subscribers with some results of the research activities associated to some themes funded in the past few years by the Ministry of Science and Technology of Serbia, and especially those from a complex project entitled: "Processes, Materials, Equipment and Systems of Organic and Inorganic chemical technology". The realization of such a fundamental investigation was performed by 47 scientists and researchers, situated in 5 institutions (Faculty of Technology and Metallurgy – Belgrade as the coordinator and Prof D. Skala as head of the project, Faculty of Technology – Leskovac, Faculty of Mechanical Engineering – Belgrade, Faculty of Electrical Engineering – Belgrade and Institute of Technology, Metallurgy and Chemical Engineering – Belgrade). The main objectives of these investigations were the analysis of different processes of organic and inorganic chemical technology, e.g. the regeneration of used materials, the catalytic conversion of pyrolitic oils and other fractions of crude oil, the manufacture of catalysts for organic synthesis, the production of ceramic materials and materials with nanostructure, etc. The results of some experimental investigations are presented in papers of this issue covering the analysis of the solubility of vegetable oils in supercritical carbon dioxide (I. Zižović and D. Skala), the preparation of aerogels using a drying procedure of the corresponding wet gel under supercritical conditions of carbon dioxide (A. Orlović et al.), the analysis of liquid flow in a three–phase reciprocating plate column (Lj. Nikolić et al.) and the removal of toxic organic substances from the vapor phase by using the adsorption technique (J. Bastić and D. Skala). These papers were selected to represent the interest of researchers oriented toward processes of supercritical extraction and supercritical drying, hydrodynamic analysis and liquid flow modeling in a special type of gas–liquid solid contacting device (reciprocating plate column), as well as the problem of the characterization of specific adsorbents based on charcoal cloth.

The above mentioned project also covers some other topics and themes such as, for example, the mathematical modeling of complex chemical processes (several papers covering this topic were published in No 9 of 54th volume of the Chemical Industry Journal in 2000), the analysis of system stability (D. Debeljković et al. also published in this issue), the management and control of processes, as well as the development of specific software for picture analysis or HDS reactor simulation for light gas oil. Material characterization, fatigue determination during exploitation, the determination of residual stresses, the welding and mechanics of debris of metallic and composite materials was also performed successfully in this project.

New proposals for obtaining funds from the Ministry of Science, Technologies and Development are currently in preparation and many of the mentioned investigations will continued and, of course, there will be new projects. We are expecting that some of the future results of new projects will be submitted and published in the Chemical Industry Journal.

The last two articles in this issue bring insight into the problem of depleted uranium. This problem will be also presented in No 7–8 of the Chemical Industry Jl. (Hemijska industrija, in Serbian). All of the papers prepared for this and the following issue of Hemijska industrija were presented at the seminar: "Depleted Uranium – Truths or Mistakes" held on June 21, 2001 in Belgrade, which was organized by the Yugoslav Association of Chemical Engineers. The first paper (G. Joksić) indicates how cytogenetic methods can be used for detecting internal contamination with radionuclides, while the second (S. Raičević) analyse the possible influence of different materials useful for soil remediation. This "hot" themes came to attention after the 1999 bombardment of Yugoslavia by the NATO Alliance when around 10–13 t of depleted uranium were used for targeting different military objects in the region of South Serbia, Kosovo and Metohija Province and Montenegro. A public proclamation prepared by scientists, researchers and professionals who took part in organizing this seminar will be presented as the Editor's page of our next issue.

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The Editor's page is also a special call to scientists and researchers to submit their results and original papers oriented to the problems of chemistry, chemical technology, materials preparation, the development of new processes or the mathematical simulation of existing ones, the production of fine or natural chemicals and materials etc.

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