

## EDITOR'S PAGE

### DEAR READER!

Editorial board of the journal welcomes all our readers with the first issue of the year 2010. All who have published and who are going to publish their research results in *Oil Shale* are welcome. As a member of the editorial board I have the pleasure of stating that the circle of authors has grown, both in the number of states and research fields. Fruitful cooperation with the authors and reviewers is crucial in developing our journal's high reputation.

Utilization of oil shale is becoming more and more topical. Therefore it is essential to check previous results and search for the best way to use both organic and mineral part of oil shales.

At processing kukersite oil shale in vertical (Kiviter) retorts, high content of organics in retorted shale is a serious problem. On the one hand, it means loss of organic matter rich in energy, on the other hand, the material transported to semicoke hills represents danger to the environment, as this organic residuum activated during retorting becomes subjected to environmental impacts and may contaminate the surroundings with harmful chemical substances. The following may seem utopian at present, however, the results of Dr. I. Johannes and her team show that the creation of a new technology may become a reality in the distant future. Processing thermobitumen, the typical intermediate stage of oil shale retorting, can be the method for recovering all organics. The products can be used as raw material for chemical industry or for producing energy.

The following examples of better utilization of oil shale mineral part are given by Chinese colleagues (Xu Ying-Mei et al.) and scientists from Estonia and Finland (J. Reinik et al.). Both studies represent an extension of earlier experiments of using the mineral part, e.g. for binding CO<sub>2</sub>.

The resources of Dictyonema argillite in Estonia are huge. Dictyonema is not rich in organics (10–20%), however, this amount is sufficient for producing chemicals or energy in the future. The paper by J. Kilk is a signpost for other researchers in applied chemistry who are searching for the best possibilities of exploiting Dictyonema argillite. The fact that development of nuclear energetics puts the production of uranium from argillite high on the



agenda cannot be neglected either. The corresponding technology has already been worked out and even put into practice. Surely the corresponding review will be published in *Oil Shale* in the coming future.

The voluminous review on asphaltites (O. Kavak et al.) published in this issue seems to be an exception. However, the researches in this field are highly needed. Şırnak asphaltites (Turkey) of high content of organics (up to 73%) are used as domestic fuel. Of course, there arises the problem of contamination of the ambient air. There is a reason to believe that detailed examination of asphaltite deposits may offer rich information about possible oil pools which are also of continuously growing interest of scientists and practitioners.

All states processing oil shale resources pay much attention on development of processing technology. For example, let us examine China with her high ( $6 \cdot 10^{13}$  tonnes) resources. The deposits are located mainly in the Songliao basin (the paper by Xue Hua-Qing in this issue). China already belongs to the states where oil shale is successfully processed (the paper by Jialin Qian in *Oil Shale* No. 4, 2008). No doubt that a pilot-scale unit with yearly output of 100 000 t shale oil planned to be built in Songliao will be erected and put into operation.

Coupling of different products of oil shale retorting or their fractions may be a promising solution in the future. For example, mixing of a suitable shale oil fraction with biodiesel and adding some other components may yield a quite environment-friendly motor fuel. The corresponding results have been patented in Estonia already.

Dear reader! Oil shale topic has become an actual global problem. All researches lead us to new discoveries. I would like to encourage the researchers who are daunted by the most expensive contemporary laboratory technique. Many ideas can be checked by simpler means. Identification of chemical structures may wait until new regularities must be proved. It might be able to economize rather scanty financial means assigned for the research.

Enjoy the reading!

Prof. Jüri KANN  
The member of *Oil Shale* Editorial Board