Special Issue

Catalysis in Aquathermolysis of Heavy Oil

Message from the Guest Editors

Nowadays, the current global trend is focusing on actively developing heavy oil deposits, which requires the use of unconventional production methods. In fact, thermal enhanced oil recovery methods are occupying a prevailing place among other unconventional enhanced oil recovery methods, in particular, injection of superheated steam. Such an impact on the reservoir, due to high temperature and the presence of catalytically active rocks minerals, may lead to improvements in the composition of the produced oil and its decreased viscosity. This process is called aquathermolysis. The development of special reagents that would maintain the high mobility of heavy oil during production and thereby increase the energy efficiency of thermal technologies is important and relevant. Such reagents can be present in various catalytic systems. It is also important to study the influence of various factors on the efficiency of catalytic systems during the conversion of certain compounds and their groups that make up heavy oil.

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