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Catalytic hydrogenation for Estonian shale oil

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Oil shales hold a special position among fossil fuels both by composition and by the role as energy feedstock. So called shale (synthetic) oil is extracted from shale deposits formed many years ago from plant and animal residues. In Estonia shale oil is produced by thermal processing of oil shale. It is a liquid organic mass with increased content of sulfurous compounds (up to 1.5). Method of catalytic hydro-genation is one of the possibilities to get low-sulfur shale oil of high quality. At this stage the first step of desulfurization occurs. The desired fractions of the obtained oils can be directed to the second stage of hydrogenation similar to classical scheme of oil-refining. Consequently, shale oil can be considered as a perspective source of artificial liquid fuel production. For particular countries and regions based on available natural resources and economic condition production of synthetic liquid fuels may be effective both now and in the near future.

Biography

Ana Jurkeviciute has completed her MSc in 2014 and she is pursuing PhD from Tallinn University of Technology from 2015. She has participated in scientific-technical conferences of students, Post-graduates and PhD students at Yaroslav State Technical University (YSTU). She is a laureate of the 68th conference of YSTU. In 2014 she took participation with poster presentation in the 34th Oil Shale Symposium in Colorado, USA. She has got a publication about synthesis of modified solid resorcinol-formaldehyde resins based on shale oil phenols in the journal "Solid Fuel Chemistry". She is the Master's Degree Programme Director (Fuel Chemistry and Technology).

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