Programme & The Book of Abstracts

Twentieth Annual Conference

YUCOMAT 2018

Herceg Novi, Montenegro, September 3-7, 2018

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TWENTIETH ANNUAL CONFERENCE

YUCOMAT 2018

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O.S.IV.5.

Ni-Pd/Al₂O₃ catalyst in the form of foam for dry methane reforming

Vesna Nikoli ¹, Zoran An i ², Dragana Radovanovi ¹, Jelena Uljarevi ¹, Maja Stevanovi ¹University of Belgrade, Innovation Center of the Faculty of Technology and Metallurgy in Belgrade Ltd, Belgrade, Serbia; ²University of Belgrade, Innovation Center of the Faculty of Chemistry, Belgrade, Serbia

In this research, catalytic properties of Ni-Pd/Al $_2$ O $_3$ catalyst synthesized by aerosol impregnation method were examined in the dry methane reforming process. First, reticulated ceramic foams were impregnated by ultrasonically nebulized solution of corresponding chlorides and dried. The catalyst was activated by direct hydrogen reduction, without calcination, at only 533 K. The reforming test was carried out at temperatures of 873, 973 and 1023 K. Since CO and H_2 are the main products of the dry methane reforming, yields of those gasses were measured and obtained results were a base for conclusions about selectivity, activity and stability of the catalyst. Acknowledgement: This work was financially supported by the Ministry of Education, Science and Technological Development of the Republic of Serbia, Project No. TR - 34033.