Journal of Physics: Conference Series 2017 vol.927 N1

The effect of electrically conductive additives on the plasma pyrolysis of heavy hydrocarbons

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Abstract

© Published under licence by IOP Publishing Ltd. It's shown that the electric discharge initiation of in-situ combustion can be executed by entering conductive additives to hydrocarbon raw materials. It is observed, that the most of all the soot is formed from aromatic hydrocarbons during the plasma pyrolysis. Cracking of hydrocarbons by electric discharge, with conducting additives and precursors of catalysts, leads to formation of carbon and metal nanoparticles.

http://dx.doi.org/10.1088/1742-6596/927/1/012046

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