CATALYTIC HYDROTREATING OF LIGHT CYCLE OIL AND ITS MIXTURE WITH ATMOSPHERIC GAS OIL


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Without further processing light cycle oil (LCO) is a poor diesel blending component. The LCO was upgraded through the one-step hydrogenation process. LCO and straight-run gas oil (AGO) mixtures were hydrotreated in a continuous flow reactor over a commercial NiW/SiO₂-Al₂O₃ catalyst. LCO was mixed with AGO to avoid the fast deactivation of the catalyst. Elemental analysis, HPLC analysis and simulated distillation of the products were carried out. The hydrotreating of pure LCO presented similar products during the process (time on stream 52 hours). Stable hydrotreated products with significantly lower amount of polyaromatics, nitrogen and sulphur, respect to the feedstock, were obtained.

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