



Short Communication

## Acetylation of glycerol over heteropolyacids supported on activated carbon

P. Ferreira <sup>a</sup>, I.M. Fonseca <sup>b</sup>, A.M. Ramos <sup>b</sup>, J. Vital <sup>b</sup>, J.E. Castanheiro <sup>a,\*</sup>

<sup>a</sup> Centro de Química de Évora, Departamento de Química, Universidade de Évora, 7000-671 Évora, Portugal

<sup>b</sup> REQUIMTE, CQFB, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, 2829-516 Caparica, Portugal

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### ABSTRACT

The acetylation of glycerol was carried out over dodecatungstophosphoric acid (PW) supported on activated carbon, being the monoacetin, diacetin and triacetin the reaction products.

A series of catalysts, with different heteropolyacid loading (from 3.5 to 6.5 wt.%), were prepared. It was observed that the catalytic activity increases with the amount of PW immobilized on the activated carbon, being the PW2\_AC (with 4.9 wt.%) the most active sample. However, at high loading of heteropolyacid on the activated carbon, a decrease on the catalytic activity was observed, which can be probably explained due to some hindrance in the activated carbon porous system.

All catalysts exhibited good values of selectivity to the diacetin.

Catalytic stability of the PW2\_AC was also studied by performing consecutive batch runs with the same catalyst sample. After the third batch, it was observed that the catalytic activity stabilized.

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