

Article

# Microemulsion and sol-gel synthesized $\text{ZrO}_2\text{-MgO}$ catalysts for the liquid-phase dehydration of xylose to furfural

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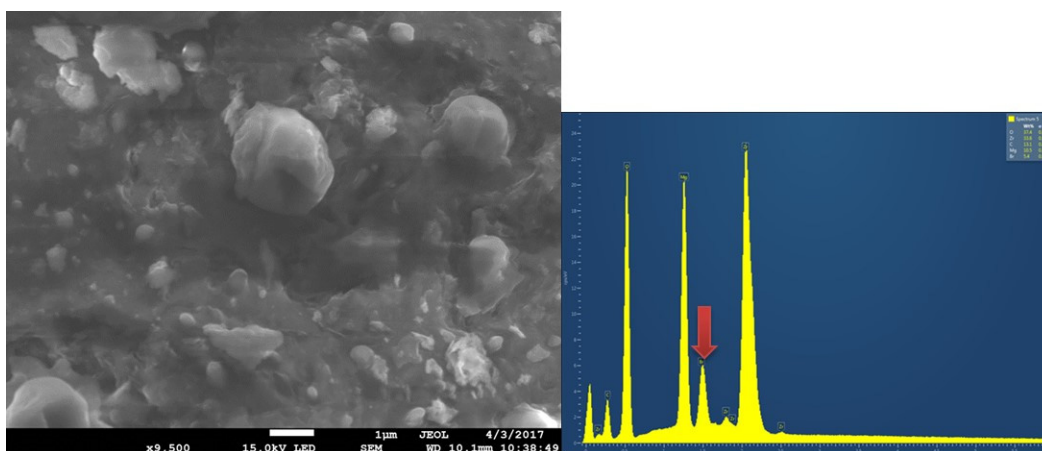
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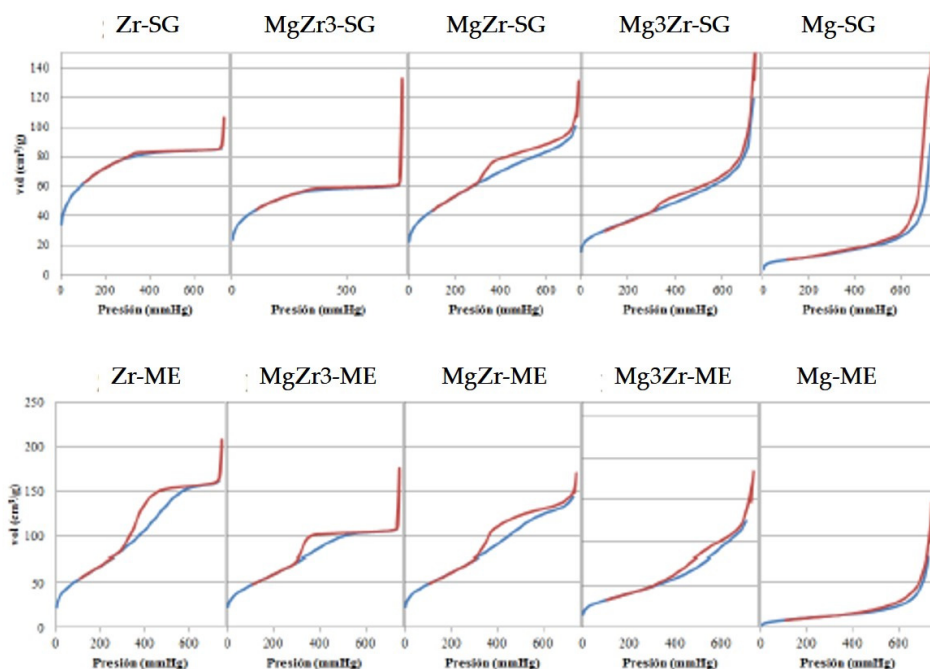
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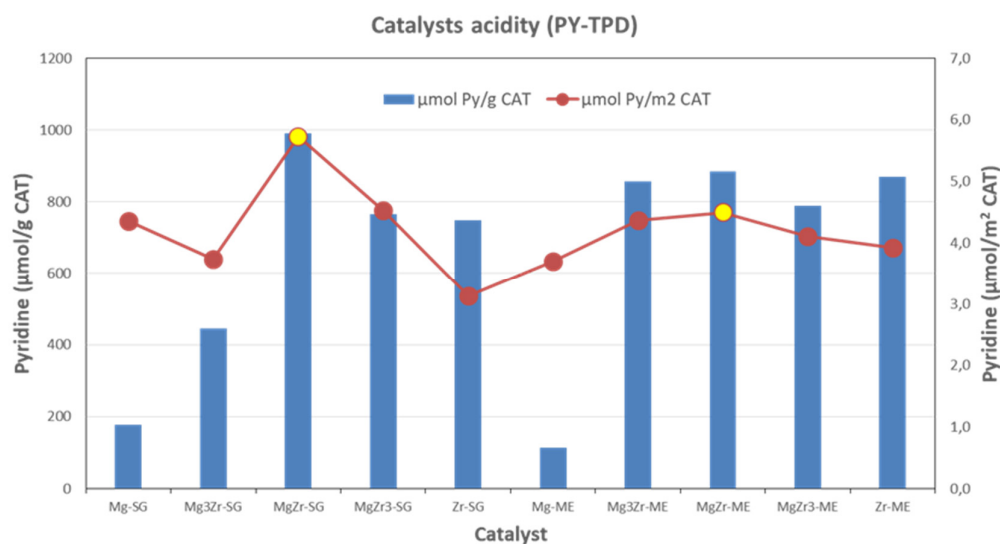
**Supplementary Materials:** The following are available online at [www.mdpi.com/link](http://www.mdpi.com/link).



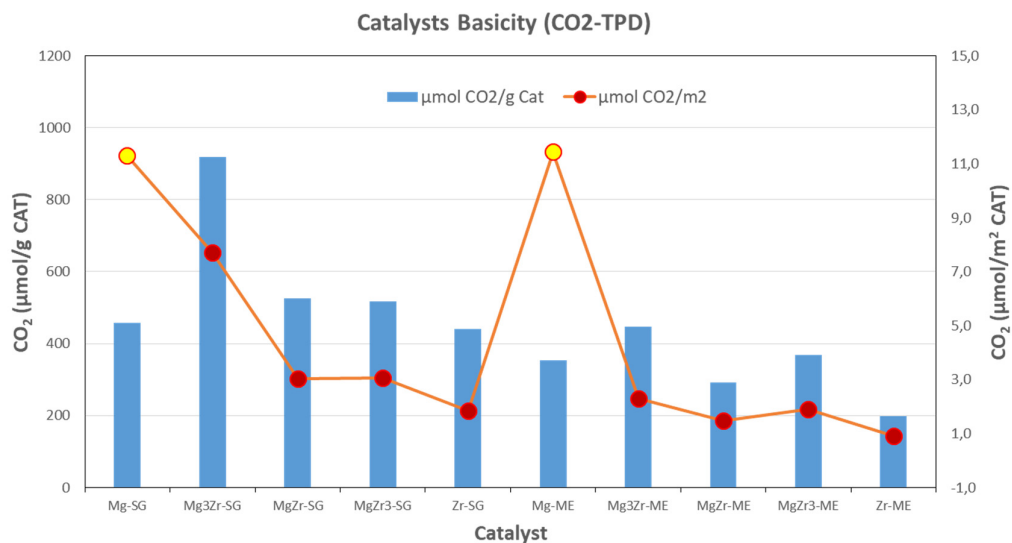
**Supplementary Figure S1:** SEM-EDX measurements for the MgZr-ME catalysts, including EDX profiles for the whole image area. Red arrow marks Br signal (2.1% atomic).



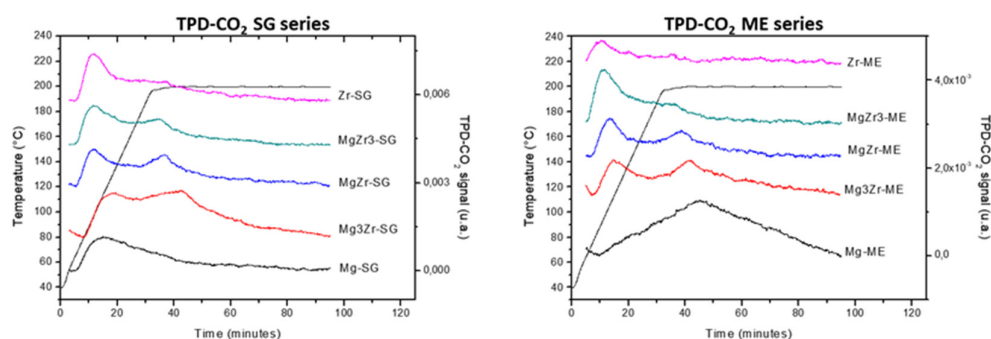
**Supplementary Figure S2:** Nitrogen adsorption-desorption isotherms corresponding to the solids of both SG and ME series.



**Supplementary Figure S3:** Catalysts acidity determined from temperature programmed desorption of pre-adsorbed pyridine ( $\mu\text{mol PY/g CAT}$  and  $\mu\text{mol PY/m}^2 \text{CAT}$ ).



**Supplementary Figure S4:** Catalysts basicity determined from temperature programmed desorption of pre-adsorbed carbon dioxide ( $\mu\text{mol CO}_2/\text{g}$  and  $\mu\text{mol CO}_2/\text{m}^2$ ).



**Supplementary Figure S5:** Temperature-programmed desorption profiles of pre-adsorbed carbon dioxide obtained for the catalysts synthesized in this work.