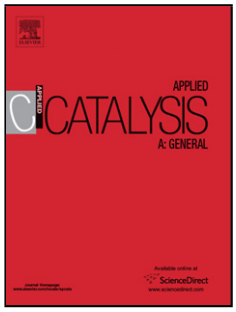

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Integrated study on the role of solvent, catalyst and reactant in the hydrodeoxygenation of eugenol over nickel-based catalysts

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Highlights

- The catalysts were improved by vacuum and ultrasonic treatments during preparation.
- Integrated study on the role of solvent, catalyst and reactant was carried out.
- 100% conversion and full oxygen removal were achieved over Ni/HZSM-5 in n-hexane.
- Brønsted acid was more effective than Lewis acid in the dehydration.

Graphical Abstract