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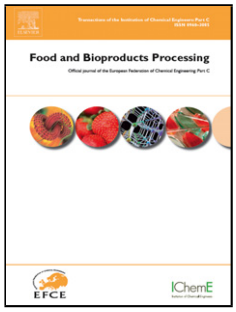

Title: Structural characteristics of a Ni-Ag magnetic catalyst and its properties in soybean oil hydrogenation

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ACCEPTED MANUSCRIPT

Structural characteristics of a Ni-Ag magnetic catalyst and its properties in soybean oil hydrogenation

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Highlights:

- A Ni-Ag magnetic catalyst was assessed for soybean oil hydrogenation
- Prepared catalysts were characterized by ICP-OES, XRD, TEM and N_2 isotherms.
- Ni dispersion on PVP-DB-171/SiO_2/Fe_3O_4 NPs was improved by incorporating Ag promoter.
- Ni-$Ag_{0.15}$/PVP-DB-171/SiO_2/Fe_3O_4 catalyst had the highest catalytic activity.
- TFAs in hydrogenated soybean oil was decreased to 10.4% after 90 min.

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