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Highly stable and selective Ru/NiFe₂O₄ catalysts for transfer hydrogenation of biomass-derived furfural to 2-methylfuran

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Highlights

- Spinel ferrites NiFe_2O_4 supported Ru catalysts have been prepared via a simple sol-gel route;
- Transfer hydrogenation of furfural into 2-methylfuran reaction was conducted over Ru/ NiFe_2O_4 ;
- A enhanced activity and increased 2-methylfuran yield have been achieved over Ru/ NiFe_2O_4 ;
- Conversion of furfural exceeds 97% and 2-methylfuran yield was up to 83% under mild conditions.

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