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Title: Influence of Zr on the performance of Mg-Al catalysts via hydrotalcite-like precursors for the synthesis of glycerol carbonate from urea and glycerol

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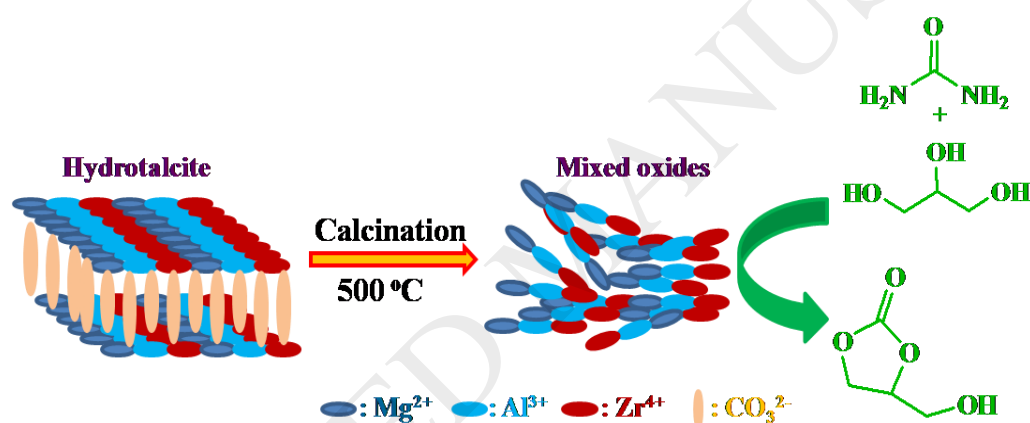
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Graphical abstract



Highlights

- ▶ Tunable acidic-basic property of mesoporous Mg-Al-Zr mixed oxides was obtained.
- ▶ The role of acidic and basic sites was clarified in overall reaction of urea and glycerol as well as in every comprising reaction pathway.
- ▶ A well-balanced acidic-basic property was important for the catalyst to obtain high GLC yield with good selectivity.
- ▶ A higher GLC yield of 87.8% with 90.8% excellent selectivity could be achieved.

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