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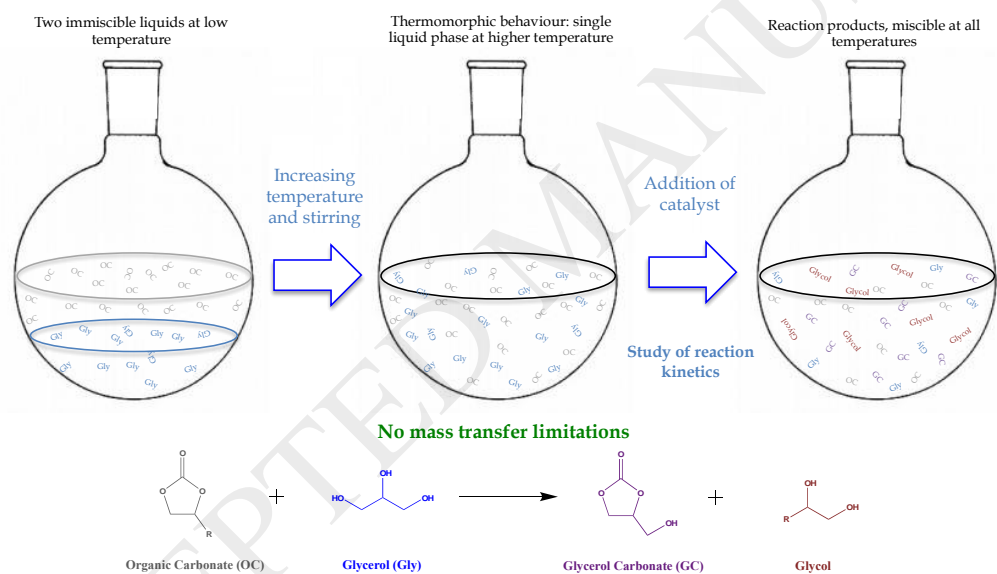
Obtaining glycerol carbonate and glycols using thermomorphic systems based on glycerol and cyclic organic carbonates: kinetic studies

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Graphical abstract



Kinetic models are presented on the production of glycerol carbonate and glycols from glycerol and propylene carbonate as well as 1,2-butylene carbonate above the critical solution temperatures.

Highlights

- Glycerol carbonate and vicinal diols were synthesized by transesterification of glycerol with propylene and butylene carbonate
- Propylene carbonate and butylene carbonate constitute thermomorphic systems with glycerol, whose critical solution temperatures are presented
- Kinetic experiments were conducted at temperatures above the critical so mass transfer limitations are avoided

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