

Catalytic Performance of CPM-200-In/Mg in the Cycloaddition of CO₂ and Epoxides

Yunjang Gu, Youngson Choe and Dae-Won Park *

Division of Chemical and Biomolecular Engineering, Pusan National University (PNU), Busan 46241, Korea; guyj1234@pusan.ac.kr (Y.G.); choe@pusan.ac.kr(Y.C.)

* Correspondence: dwpark@pusan.ac.kr, Tel.: +82-51-510-2399; Fax: +51-510-8563

Experimental procedure of the cycloaddition reaction

All the cycloaddition reactions were conducted in a 25 mL stainless steel autoclave reactor charged with the requisite amount of catalyst, epoxide, and co-catalyst. The reactor was heated to the desired temperature, and the reaction was started by stirring at 600 rpm by maintaining the reactor pressure constant with a back-pressure regulator. When a desired reaction time was elapsed, the reaction was stopped and the reactor was cooled externally to 0 °C using an ice bath. The mixture was centrifuged to separate the catalyst, and the liquid products were analyzed with a gas chromatograph (GC, Agilent HP 7890 A) equipped with a capillary column (HP-5, 30m × 0.25μm) using a flame ionization detector.

Citation: Gu, Y.; Choe, Y.; Park, D.-W. Catalytic Performance of CPM-200-In/Mg in the Cycloaddition of CO₂ and Epoxides. *Catalysts* **2021**, *11*, x. <https://doi.org/10.3390/xxxxx>

Academic Editor: Simona M. Coman; Joanna Goscianska

Received: 08 March 2021

Accepted: 24 March 2021

Published: date

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

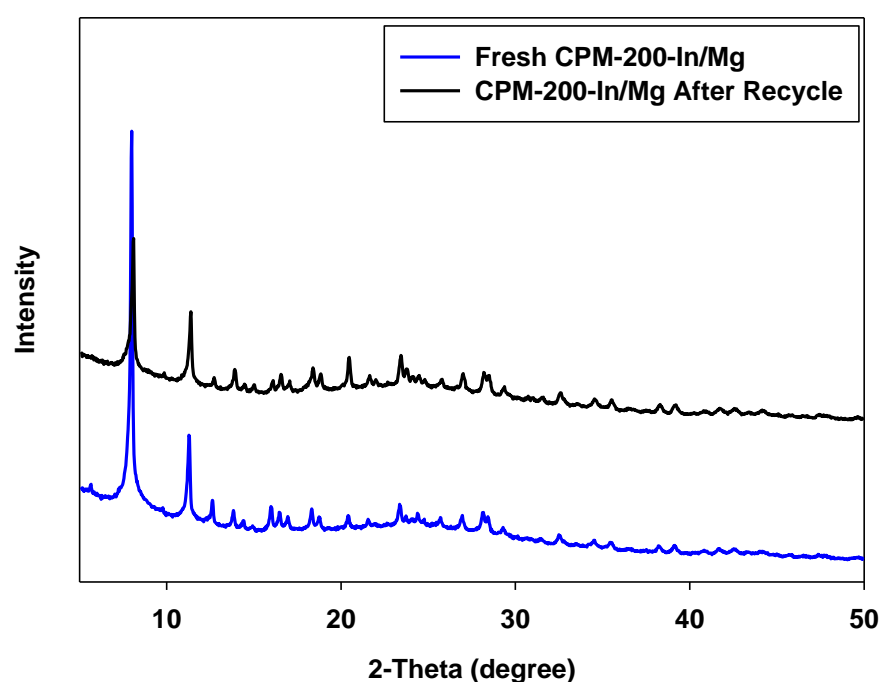


Figure S1. PXRD patterns of reused CPM-200-In/Mg catalyst.

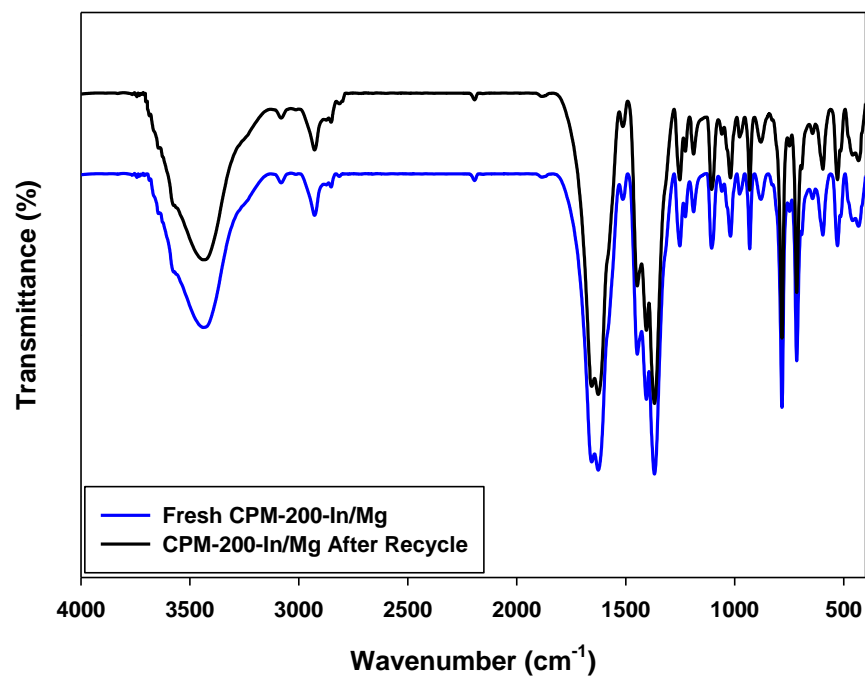


Figure S2. FT-IR spectra of reused CPM-200-In/Mg catalyst.

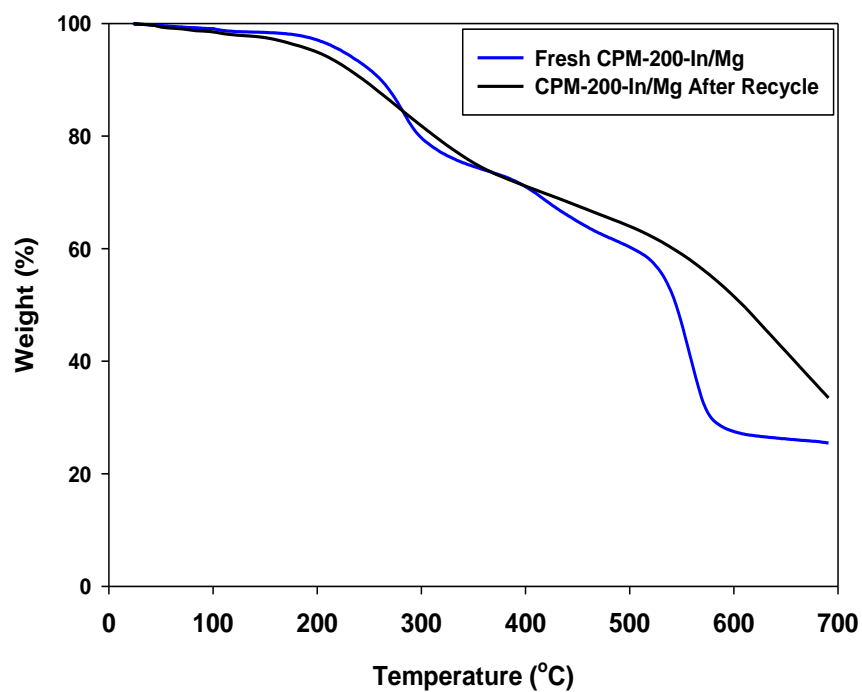


Figure S3. TGA curves of reused CPM-200-In/Mg catalyst.