

# Rapid Waste Motor Oil Conversion into Diesel-Range Hydrocarbons Using Hydrochar as Catalyst: Kinetic Study and Product Characterization

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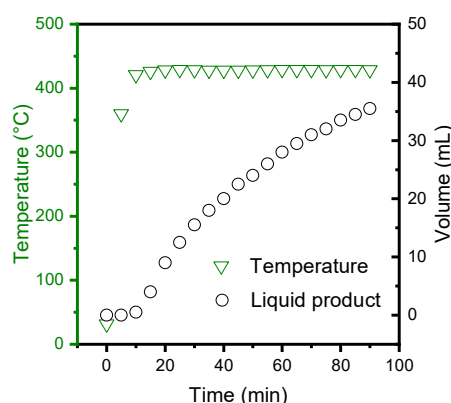


Figure S1. Exemplary temperature and volume of condensate vs. time curves during thermal cracking of WMO. Reaction conditions: Temperature: 420 °C, 40 g of WMO, 0.4 wt% of catalyst.

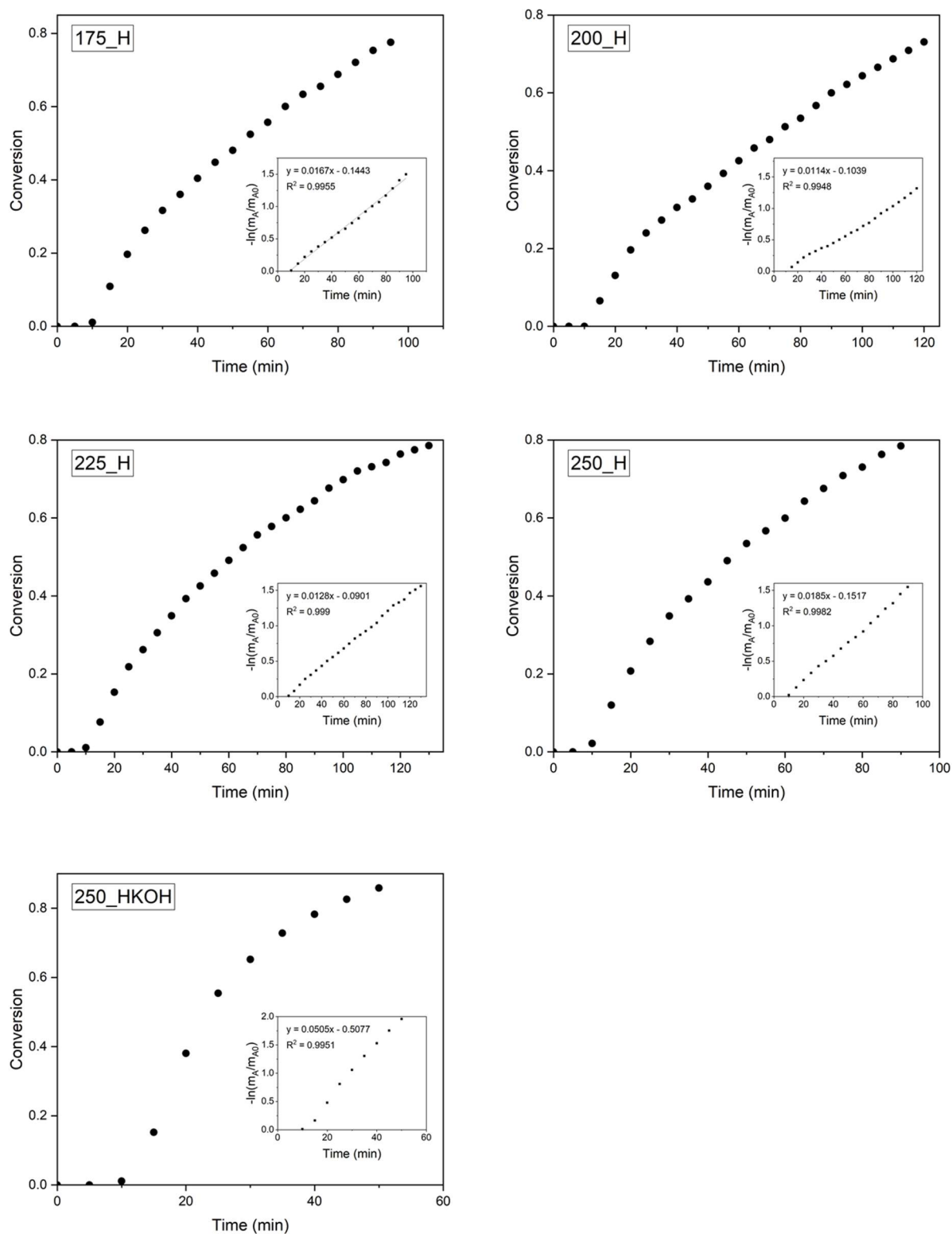


Figure S2. Conversion vs. time curves for 175\_H, 200\_H, 225\_H, 250\_H, and 250\_HKOH catalysts. Inset plots: kinetic constant calculation.

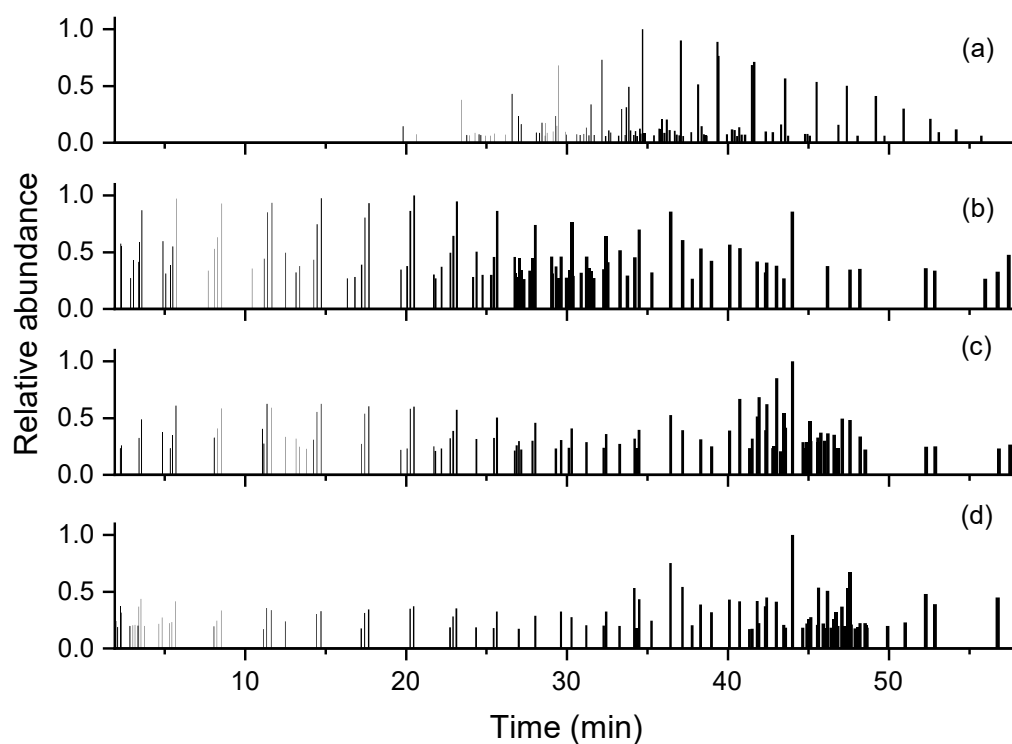


Figure S3. GC-MS chromatograms: a) commercial diesel, b) DLF from thermal cracking, c) DLF from 175\_HKOH, and d) DLF from 250\_HKOH.

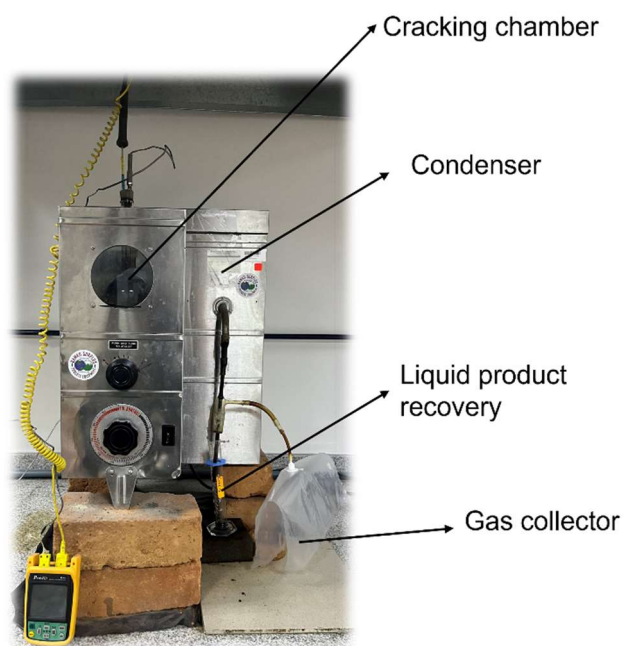


Figure S4. Picture of the cracking setup used in this study