

Supporting Information

Liquid channel built-in solid magnesium hydrides for boosting hydrogen sorption

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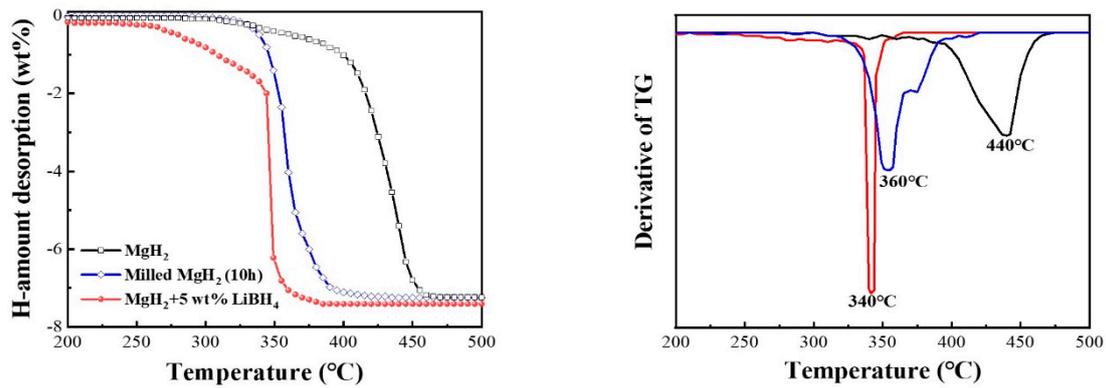


Figure S1. Temperature-programmed kinetics of desorption for bulk MgH₂ compared with ball-milled and doped 5wt% LiBH₄ (left) corresponding first order derivative graph (right).

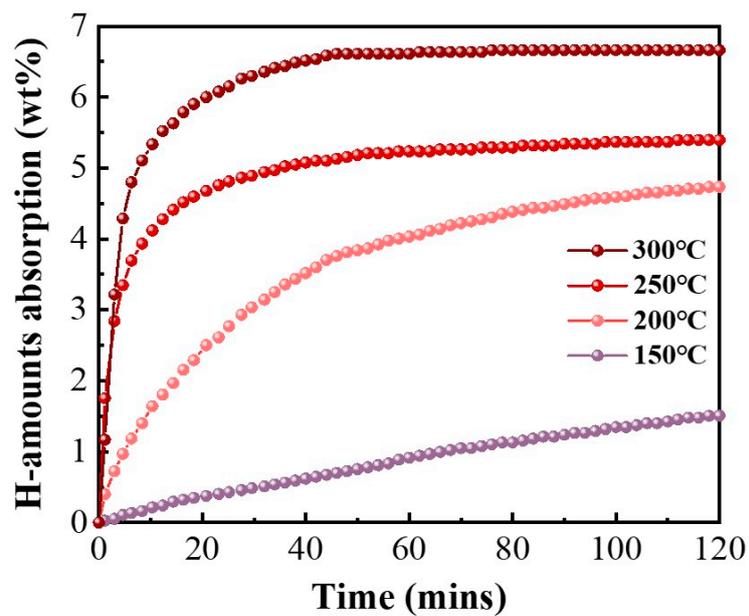


Figure S2. Isothermal absorption of MgH₂ at 150, 200, 250, and 300 °C.

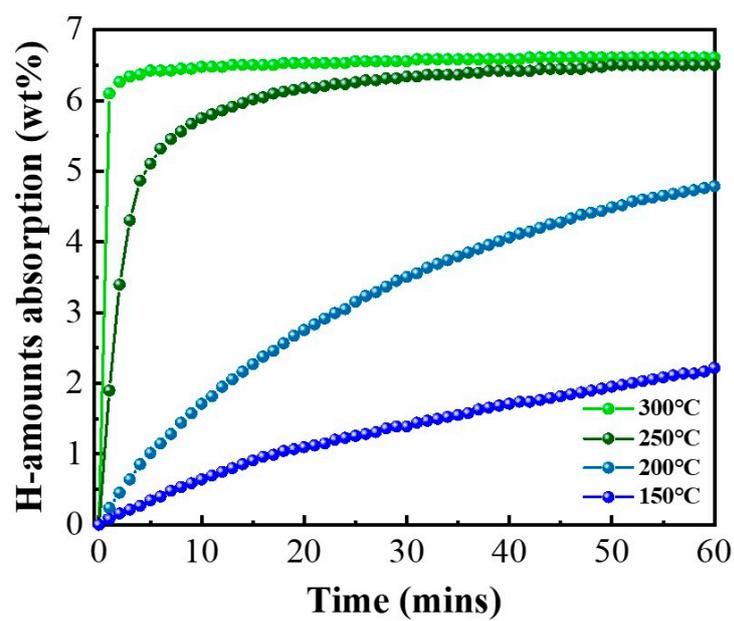


Figure S3. Isothermal absorption of LiBH₄-doped MgH₂ at 150, 200, 250, and 300°C.

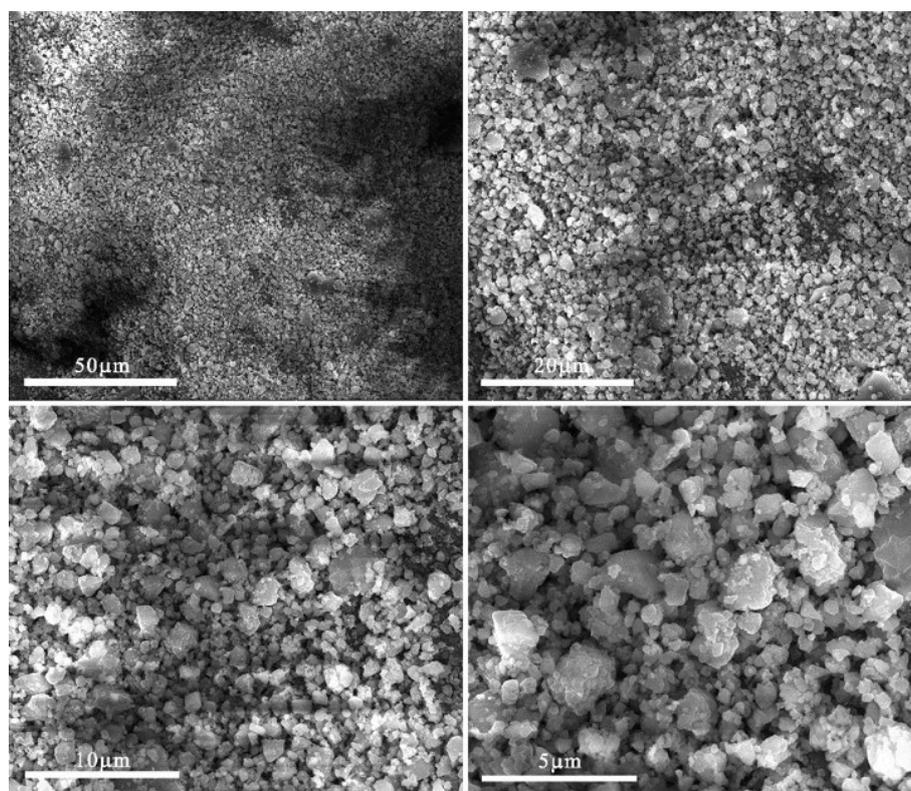


Figure S4. SEM images of LiBH₄-doped MgH₂ before kinetic cycle

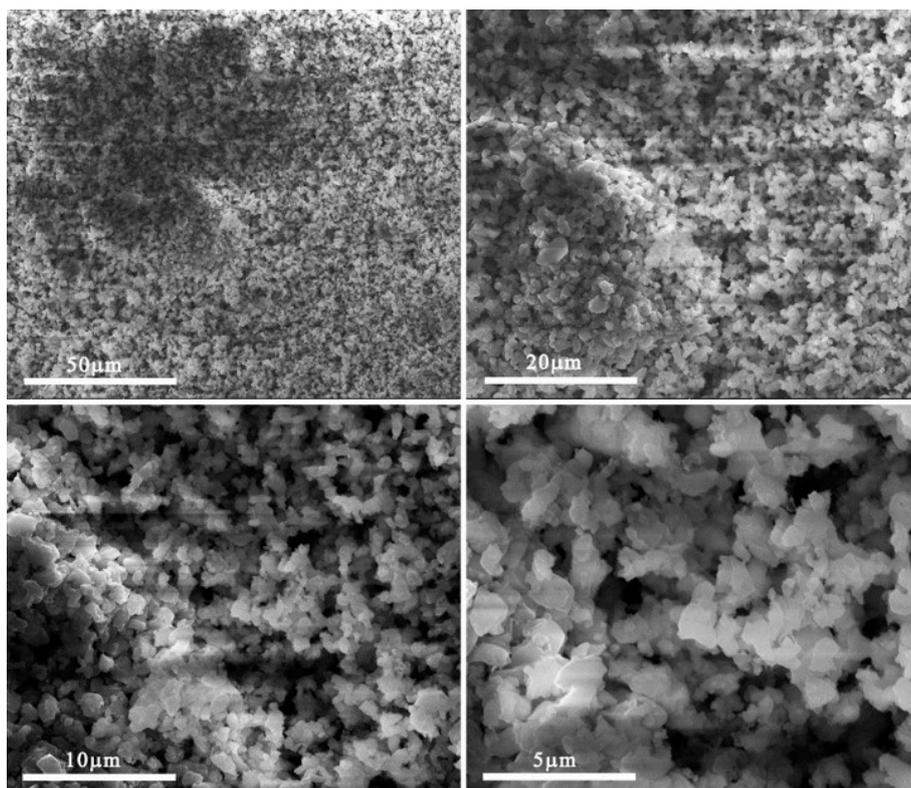


Figure S5. SEM images of LiBH₄-doped MgH₂ after six kinetic cycles

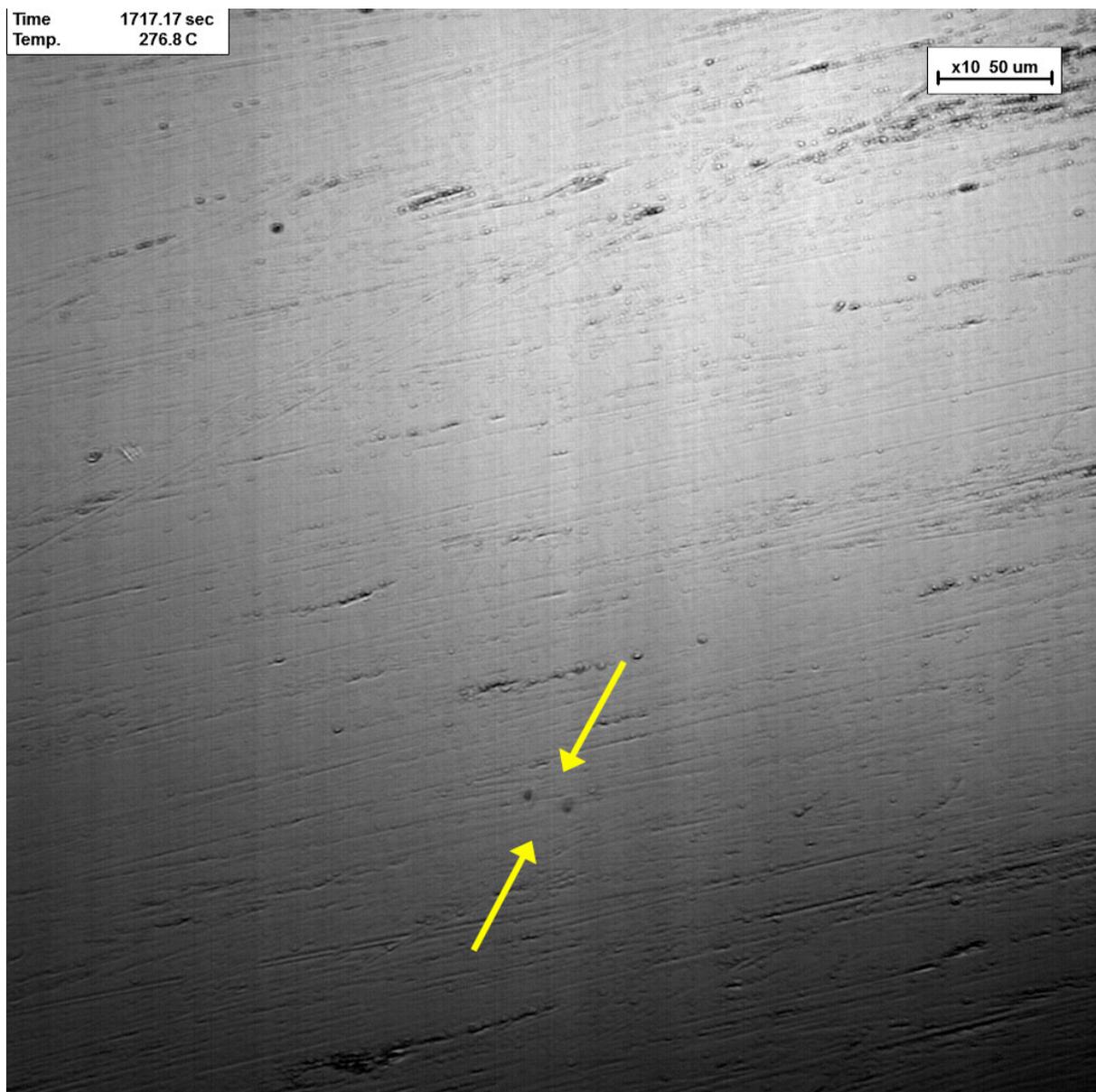


Figure S6. High temperature laser confocal image for liquid phase transition during hydrogen desorption at 276°C

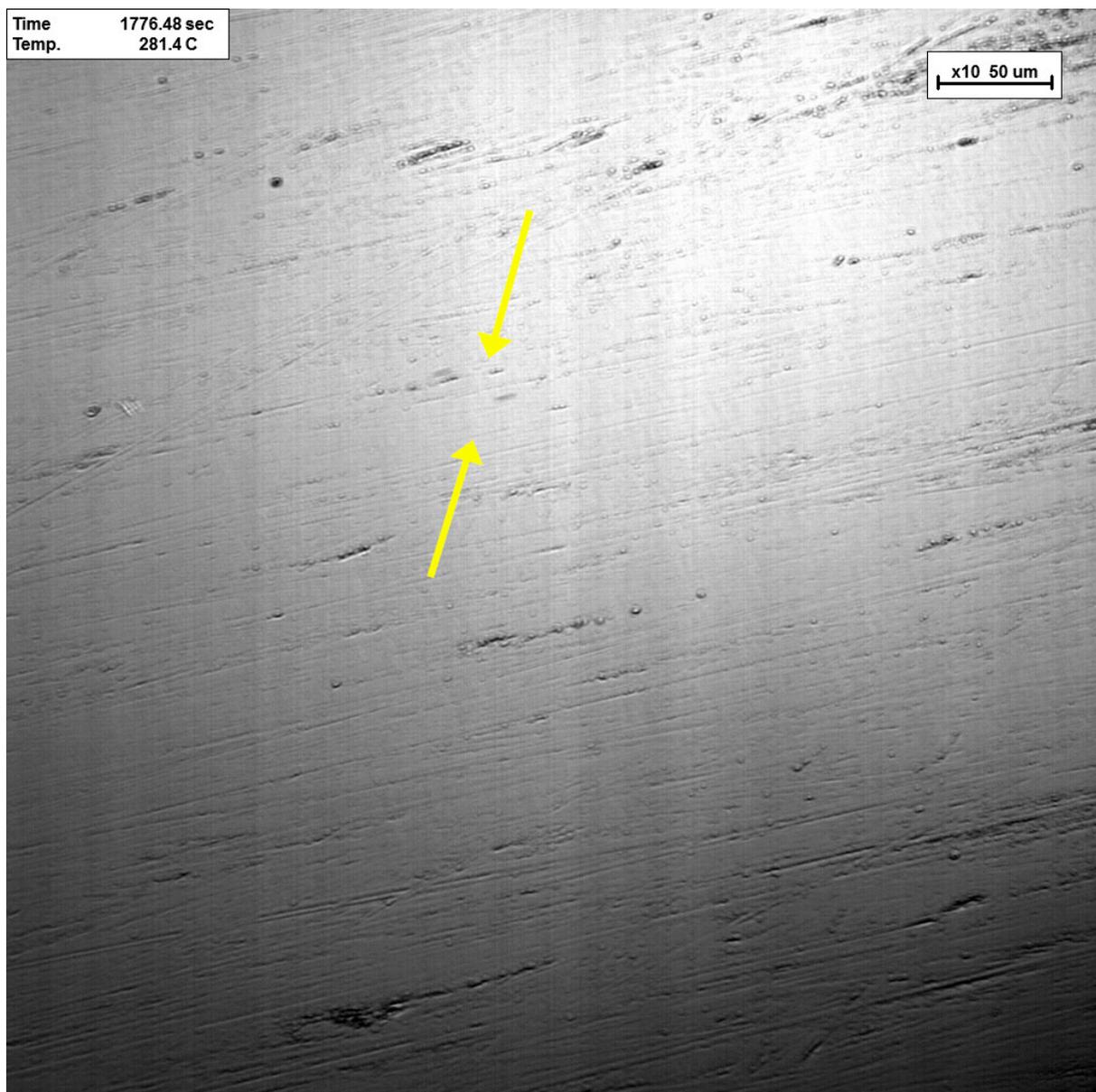


Figure S7. High temperature laser confocal image for liquid phase transition during hydrogen desorption at 281°C