Electronic Supplementary Material

Remarkably improved hydrogen storage performance of MgH_2 by the synergetic effect of FeNi/rGO nanocomposite

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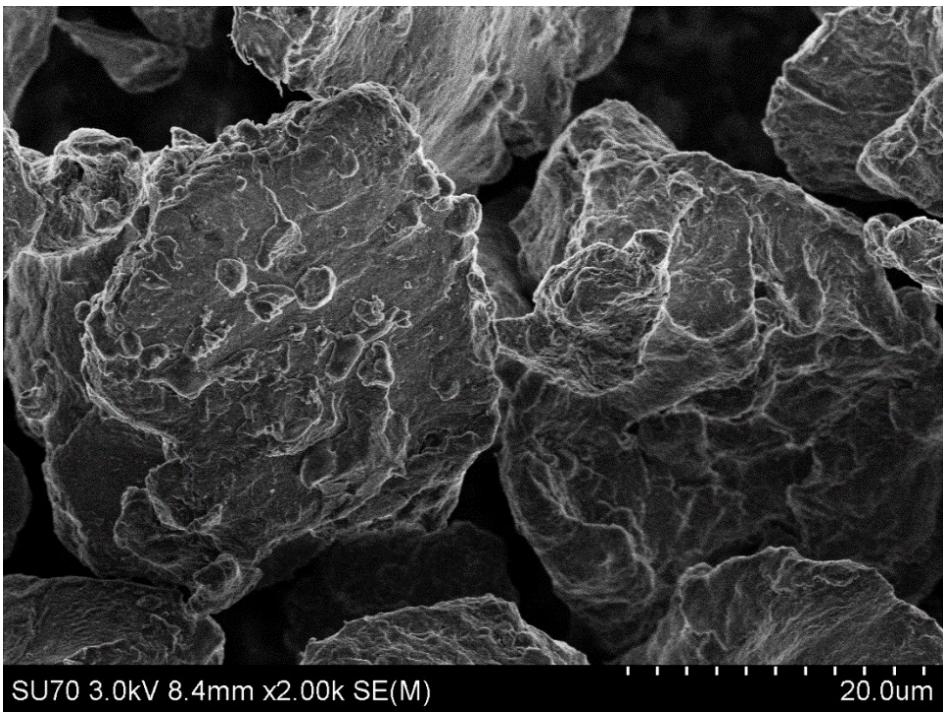

Fig. S1 SEM photograph of commercial MgH_2.[1]

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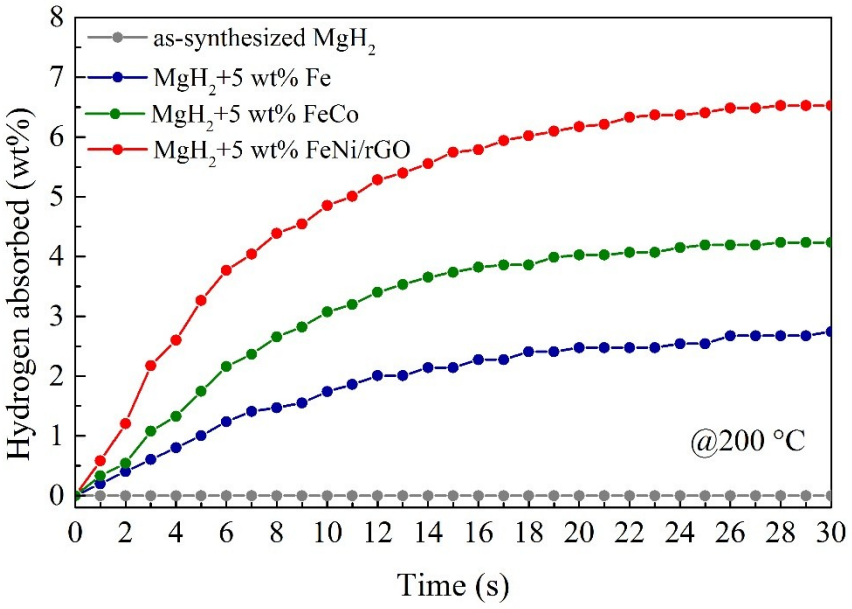

Fig. S2 Isothermal hydrogen absorption curves at 200 °C of as-synthesized MgH_2, MgH_2+5 wt% Fe, MgH_2+5 wt% FeCo, MgH_2+5 wt% FeNi/rGO samples.

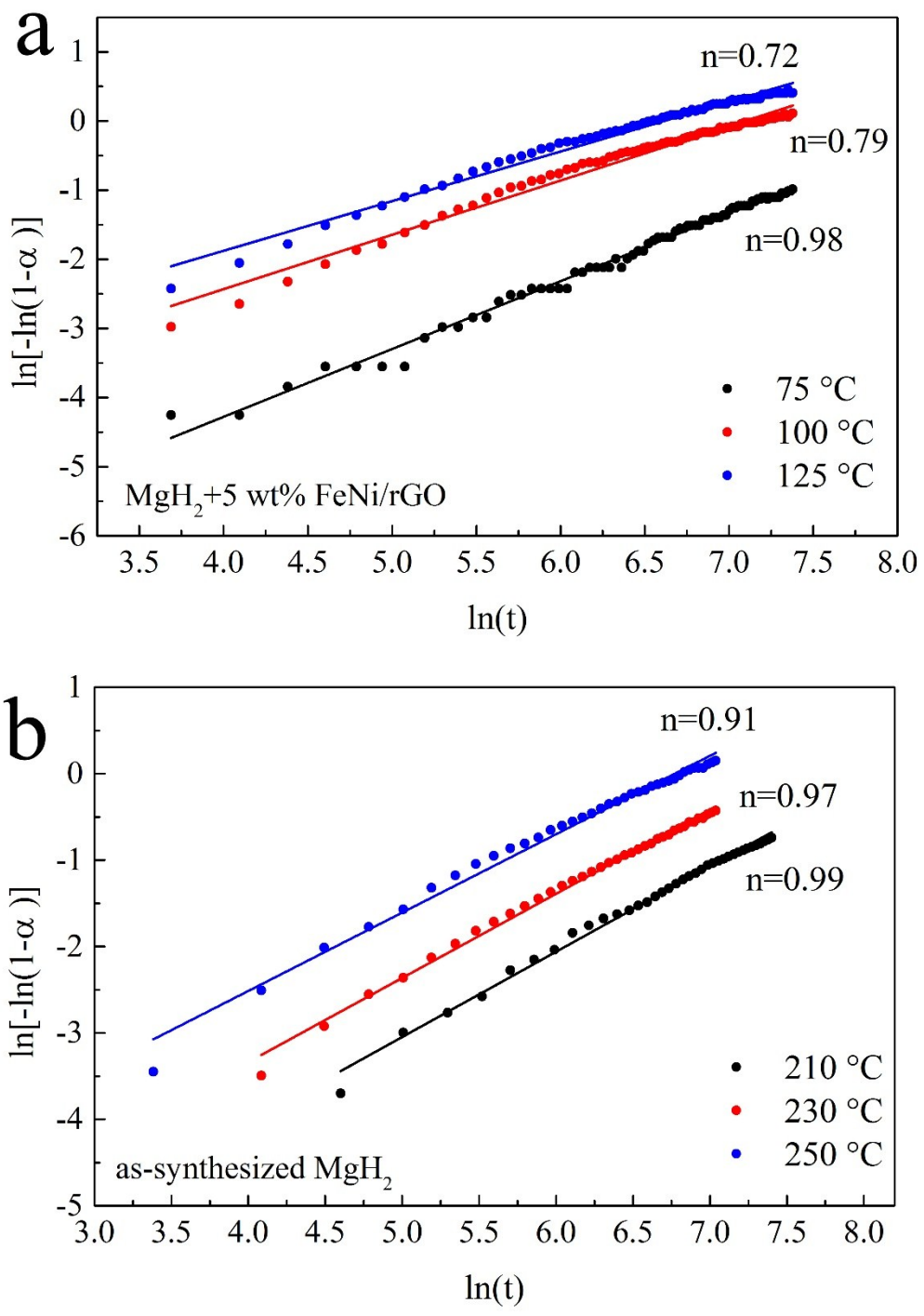

Fig. S3 JMAK plots of as-synthesized MgH_2 with (a) and without (b) 5 wt% FeNi/rGO.

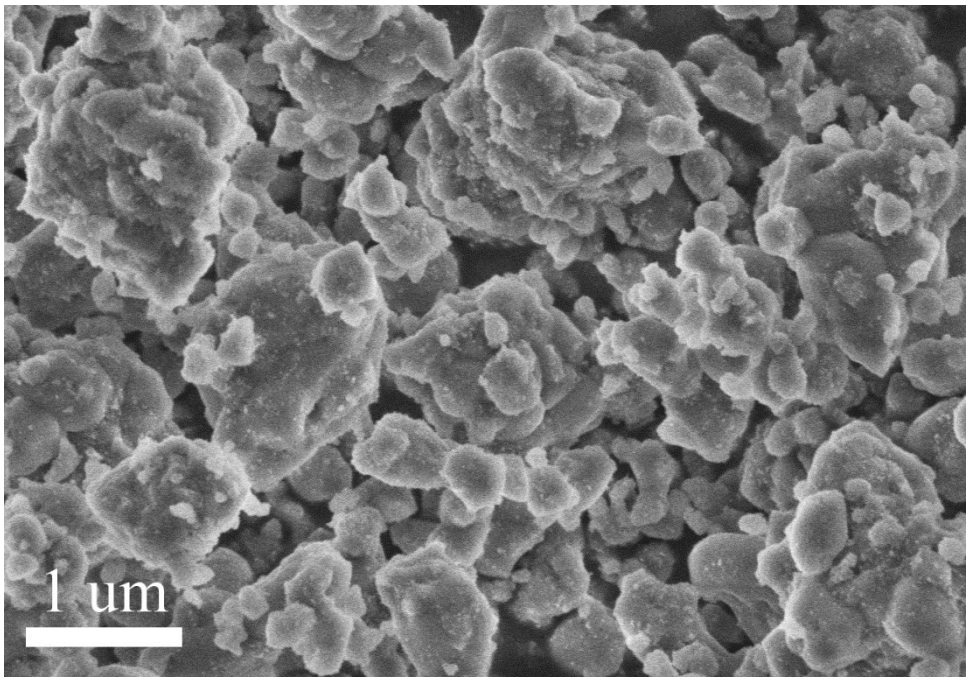

Fig. S4 SEM photograph of as-synthesized MgH_2.

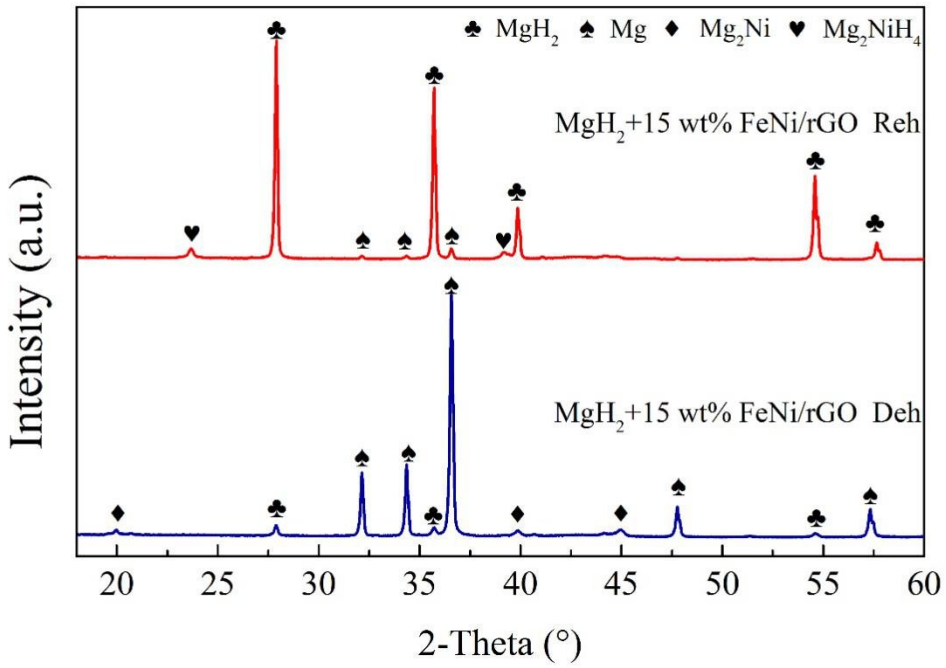

Fig. S5 XRD patterns of dehydrogenated and rehydrogenated MgH_2+15 wt% FeNi/rGO.

References

[1] L.T. Zhang, L.X. Chen, X.L. Fan, X.Z. Xiao, J.G. Zheng and X. Huang, *J. Mater. Chem. A*, 2017, **5**, 6178–6185.