Electronic Supplementary Information (ESI) for

Enhanced Hydrogen Generation Performance of CaMg₂-based

Materials by Ball Milling

Miaolian Ma ^{a, b, 1}, Kang Chen ^{b, 1}, Jun Jiang ^b, Xusheng Yang ^{c, d, *}, Hui Wang ^b, Huaiyu

Shao $^{e,\,*}\!,$ Jiangwen Liu b, Liuzhang Ouyang $^{b,\,f,\,*}$

^a School of Chemistry and Chemical Engineering, Hefei University of Technology, Hefei 230009, Anhui, PR China.

^b School of Materials Science and Engineering, Guangdong Provincial Key Laboratory of Advanced Energy Storage Materials, South China University of Technology, Guangzhou 510641, PR China. E-mail: <u>meouyang@scut.edu.cn</u>
^c Advanced Manufacturing Technology Research Centre, Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong, PR China. Email: <u>xsyang@polyu.edu.hk</u>
^d Hong Kong Polytechnic University Shenzhen Research Institute, Shenzhen 518057, PR China

^e Joint Key Laboratory of the Ministry of Education, Institute of Applied Physics and Materials Engineering (IAPME), University of Macau, Macau SAR, PR China. Email: <u>hshao@um.edu.mo</u>

^f China-Australia Joint Laboratory for Energy & Environmental Materials, Key Laboratory of Fuel Cell Technology of Guangdong Province, Guangzhou, 510641, PR China

¹ These authors contributed equally to this work.



Fig. S1 XRD patterns of CaMg₂-0.1Ni milled for 10 h.



Fig. S2 SEM images (a) 0.5 h-milled CaMg₂-0.1Ni and (b) 1.5 h-milled CaMg₂-0.1Ni.