Electronic Supplementary Material (ESI) for Inorganic Chemistry Frontiers.

Room-temperature Hydrogen Generation from Water and Nanoscale Fe Catalyzed by Pd

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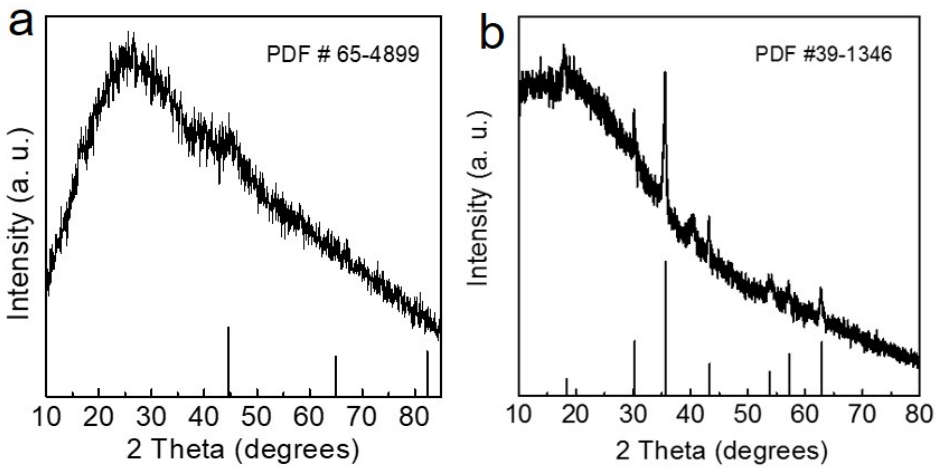

Figure S1. XRD pattern of (a) initial Fe and (b) final Pd/Fe_2O_3 nanoparticles.

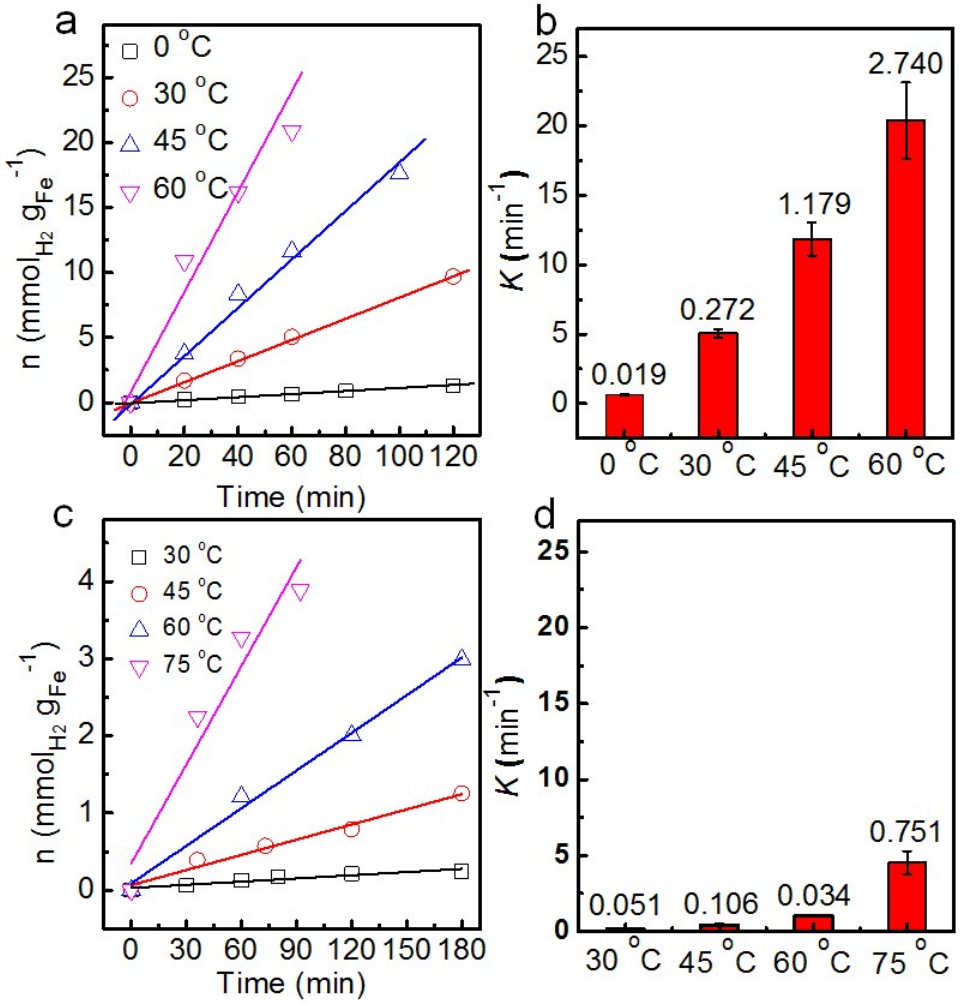

Figure S2. (a) Hydrogen generation in the presence Pd catalysts as a function of reaction time at various reaction temperatures. (b) Reaction kinetic constant of hydrogen generation in the presence of Pd catalysts at various reaction temperatures. (c) Hydrogen generation in the absence Pd catalysts as a function of reaction time at various reaction temperatures. (d) Reaction kinetic constant of hydrogen generation in the absence of Pd catalysts at various reaction temperatures.

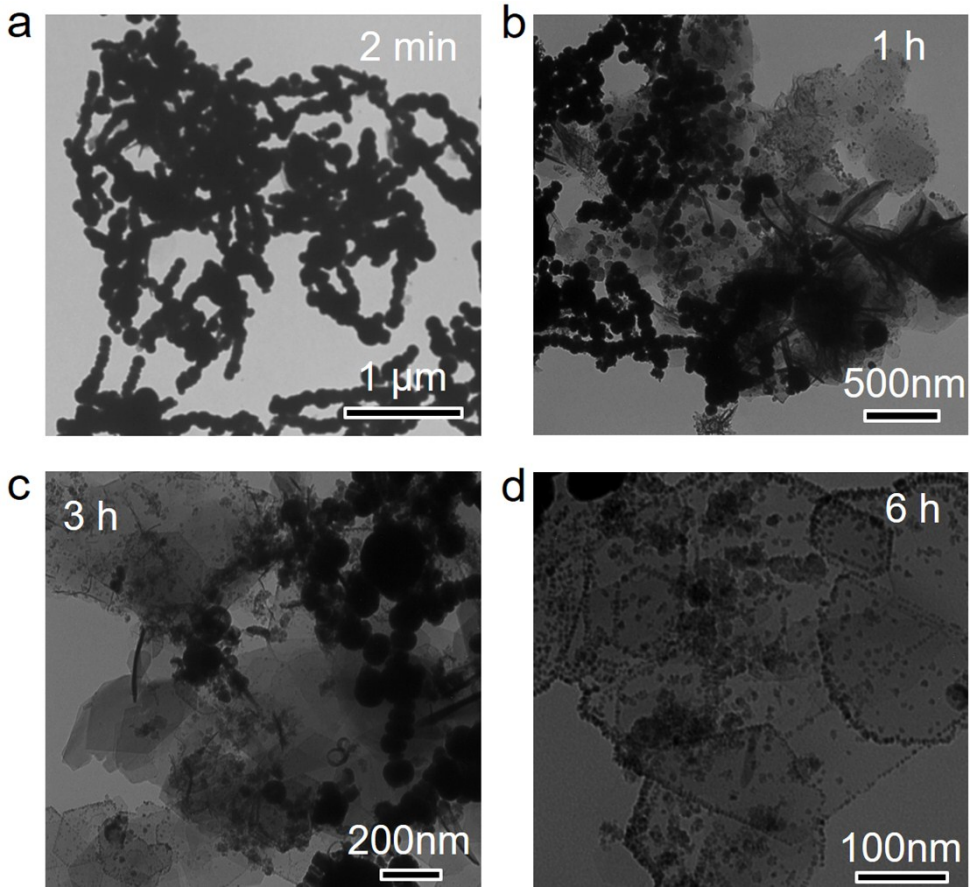

Figure S3. TEM images of solid products at various reaction times.

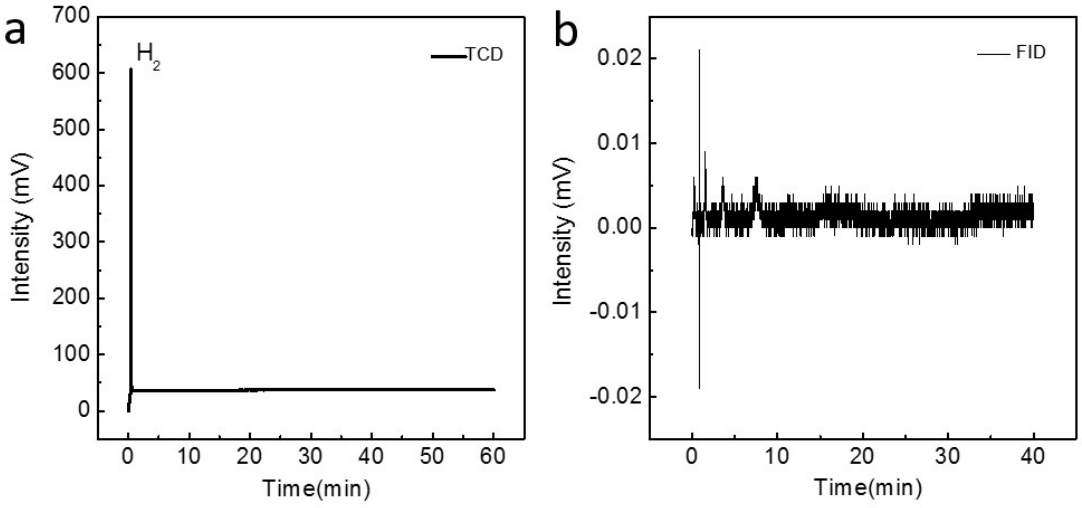

Figure S4. The released gas from the Fe/water system during the hydrogen production process.