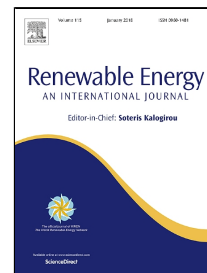


Accepted Manuscript

Microstructure and enhanced gaseous hydrogen storage behavior of CoS_2 -catalyzed $\text{Sm}_5\text{Mg}_{41}$ alloy



Zeming Yuan, Yanghuan Zhang, Tai Yang, Wengang Bu, Shihai Guo, Dongliang Zhao

PII: S0960-1481(17)31001-7
DOI: 10.1016/j.renene.2017.10.037
Reference: RENE 9325
To appear in: *Renewable Energy*
Received Date: 24 May 2017
Revised Date: 18 September 2017
Accepted Date: 11 October 2017

Please cite this article as: Zeming Yuan, Yanghuan Zhang, Tai Yang, Wengang Bu, Shihai Guo, Dongliang Zhao, Microstructure and enhanced gaseous hydrogen storage behavior of CoS_2 -catalyzed $\text{Sm}_5\text{Mg}_{41}$ alloy, *Renewable Energy* (2017), doi: 10.1016/j.renene.2017.10.037

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

1. CoS₂ catalyzed Sm₅Mg₄₁ alloys were prepared by mechanical milling.
2. CoS₂ exists on the surface of the alloy characterized as nanocrystalline.
3. Adding CoS₂ results in the onset desorption temperature lowered 10.8 °C.
4. Adding CoS₂ catalyst significantly decreases dehydriding activation energy.
5. Doping CoS₂ catalyst slightly reduces hydrogenation/dehydrogenation enthalpy.

Download English Version:

<https://daneshyari.com/en/article/6765287>

Download Persian Version:

<https://daneshyari.com/article/6765287>

[Daneshyari.com](https://daneshyari.com)