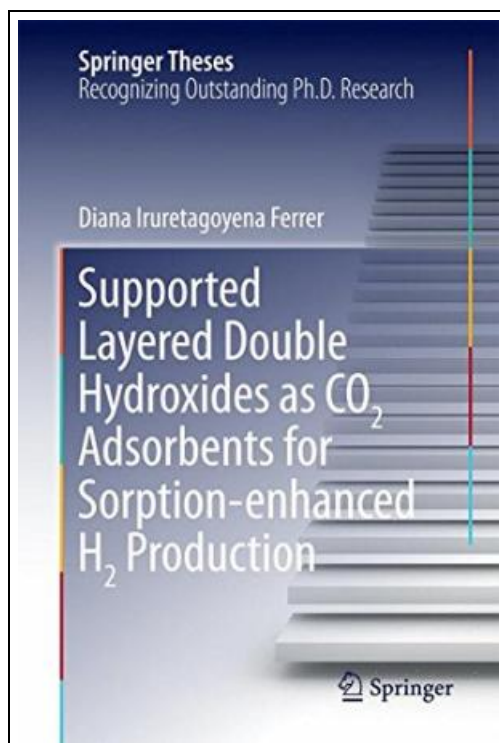


## Supported Layered Double Hydroxides as CO<sub>2</sub> Adsorbents for Sorption-enhanced H<sub>2</sub> production



Filesize: 1.52 MB

### **Reviews**

*This pdf is so gripping and exciting. I actually have go through and that i am confident that i will going to read once again once more in the future. I discovered this publication from my dad and i advised this ebook to discover.*  
*(Mr. Elwin McGlynn Jr.)*

## SUPPORTED LAYERED DOUBLE HYDROXIDES AS CO2 ADSORBENTS FOR SORPTION-ENHANCED H2 PRODUCTION



Springer-Verlag GmbH Jul 2016, 2016. Buch. Condition: Neu. Neuware - This thesis presents a combination of material synthesis and characterization with process modeling. In it, the CO<sub>2</sub> adsorption properties of hydrotalcites are enhanced through the production of novel supported hybrids (carbon nanotubes and graphene oxide) and the promotion with alkali metals. Hydrogen is regarded as a sustainable energy carrier, since the end users produce no carbon emissions. However, given that most of the hydrogen produced worldwide comes from fossil fuels, its potential as a carbon-free alternative depends on the ability to capture the carbon dioxide released during manufacture. Sorption-enhanced hydrogen production, in which CO<sub>2</sub> is removed as it is formed, can make a major contribution to achieving this. The challenge is to find solid adsorbents with sufficient CO<sub>2</sub> capacity that can work in the right temperature window over repeated adsorption-desorption cycles. The book presents a highly detailed characterization of the materials, together with an accurate measurement of their adsorption properties under dry conditions and in the presence of steam. It demonstrates that even small quantities of graphene oxide provide superior thermal stability to hydrotalcites due to their compatible layered structure, making them well suited as volume-efficient adsorbents for CO<sub>2</sub>. Lastly, it identifies suitable catalysts for the overall sorption-enhanced water gas shift process. 209 pp. Englisch.



[Read Supported Layered Double Hydroxides as CO<sub>2</sub> Adsorbents for Sorption-enhanced H<sub>2</sub> production Online](#)  
[Download PDF Supported Layered Double Hydroxides as CO<sub>2</sub> Adsorbents for Sorption-enhanced H<sub>2</sub> production](#)

## You May Also Like



### California Version of Who Am I in the Lives of Children? an Introduction to Early Childhood Education, Enhanced Pearson Etext with Loose-Leaf Version -- Access Card Package

Pearson, United States, 2015. Loose-leaf. Book Condition: New. 10th. 249 x 201 mm. Language: English . Brand New Book. NOTE: Used books, rentals, and purchases made outside of Pearson If purchasing or renting from companies...

[Read ePub »](#)



### Who Am I in the Lives of Children? an Introduction to Early Childhood Education, Enhanced Pearson Etext with Loose-Leaf Version -- Access Card Package

Pearson, United States, 2015. Book. Book Condition: New. 10th. 250 x 189 mm. Language: English . Brand New Book. NOTE: Used books, rentals, and purchases made outside of Pearson If purchasing or renting from companies...

[Read ePub »](#)



### Who Am I in the Lives of Children? an Introduction to Early Childhood Education with Enhanced Pearson Etext - Access Card Package

Pearson, United States, 2015. Paperback. Book Condition: New. 10th. 251 x 203 mm. Language: English . Brand New Book. NOTE: Used books, rentals, and purchases made outside of Pearson If purchasing or renting from companies...

[Read ePub »](#)



### Owl Notebook: Owl Gifts / Presents [ Small Ruled Writing Journals / Notebooks with Mom Baby Owls ]

Createspace, United States, 2015. Paperback. Book Condition: New. 203 x 127 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.Owl Gifts - Plain Ruled Softback Notebook [.50 / 3.59] A handy smART...

[Read ePub »](#)



### Skills for Preschool Teachers, Enhanced Pearson eText - Access Card

Pearson Education (US), United States, 2016. Online resource. Book Condition: New. 10th edition. 279 x 216 mm. Language: English . Brand New Book. NOTE: Used books, rentals, and purchases made outside of Pearson If purchasing...

[Read ePub »](#)