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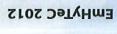
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BOOK OF ABSTRACTS

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may offer a significant advantage due to their composition based on light

investigated for this application. The organic materials, such as polymers,

relation to the hydrogen charging properties. energy and surface area of adsorption. Th... used to get information for calculation (Modeling of experimental isotherm of recommended and it has wide industrial a problem of hydrogen prevents its wide us a prerequisite for the use of hydrogen developed, including recharged batteries, the available techniques, storage in

> cialization. Among plications. Storage metal hydride is have recently been

Ni_{4.75}Fe_{0.25} alloy is ing systems.

ristics such as the

...cs are important in

establishment of the expression model is based on a statistical physics developed using the grand canonical ensemble in statistical physics. The treatment and some working hypothesizes. A new analytical isotherm equation similar to BET equation but modified, is

namely, the density of hydrogen receptor sites N_M, the number of molecules and a reasonable agreement is obtained. by fitting the experimental data has been done using numerical simulation model describing the adsorbed quantity of hydrogen on LaNi4,75Fe0,25 alloy per site and the hydrogen adsorption energy. The test of the validity of the We mainly introduce four parameters affecting the adsorption process,

NOVEL CONCEPTION MATERIALS BASED ON POLYMERIC MATRIX FOR H2 STORAGE

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Hydrogen storage measurements Keywords: Polymer functionalization, Chemical-physical characterisation,

on-board storage. The most investigated approaches include hydrogen recently developed material able to work under moderate pressure and cryogenic temperature. as an atomic hydrogen in a metal hydride. Each of these methods presents a storage as a liquid at low temperatures, as a gaseous H2 at high pressures or nonpolluting fuel for automotive is the lack of a safe and efficient system for One of the great drawback to the widespread use of hydrogen as a Some of them such as activated carbons and zeolites as well as the more Actually, the interest has been addressed towards the use of the micro porous high potentiality even if different engineering problems have been reported. metal-organic frameworks (MOFs)

> substitution in situ reaction between the chloride of the chlorine-sulphonic elements [1-3]. However, it is only very recently the polymers have been and H2 sorption measurements by Sievert apparatus. about 1wt%. The composite polymer was characterized by Scanning with a polymer containing 78wt% manganese oxide, reaching a value of conditions (T<100°C e P<60bar). Very promising results have been obtained ability to adsorb/desorb H2 in a reversible way even if in non-drastic material, using gravimetric measurements had supplied encouraging results mentioned oxide. A preliminary hydrogen sorption test on synthesized group of the PEEK and potassium permanganate used to produce the above acts as a support for the insertion/anchoring of a manganese oxide, through a ketone) (PEEK) was chosen as a base polymeric matrix with the aim of evaluated as materials for H2 storage[4]. In this work, a Poly(ether ether demonstrate the close connection between the obtained products and their to store H2. Further studies on the influence of the reaction parameters have producing a low cost and weight hydrogen storage material. The polymer Electron Microscopy, X-ray diffraction, Transmission Electron Microscopy (0.3wt% at 50°C and 80bar) about the capability of this composite polymer

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SOL-GEL PREPARATION OF Co-B2O3 CATALYST FOR ALKALINE NaBH, HYDROLYSIS

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Keywords: Sol-gel, NaBH4, Hydrolysis, Co-B Catalyst

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