Peter Tcholakov, Nikola Stanev. HYDROGEN ABSORPION IN MISCHMETAL MmNi₅ TYPE INTERMETALLIC COMPOUNDS

Hydrogen absorption in $MmNi_{4.7}Mn_{0.2}Al_{0.1}$ and $MmNi_{4.7}Mn_{0.1}Al_{0.2}$, prepared by arc melting, were studied at hydrogen pressure up to 50 atm in a temperature range 20–60 °C by a volumetric type setup. There desorption **PC** isotherms and main absorption parameters were obtained. The experimental results point, that the investigated intermetallic compounds are suitable for use as hydrogen storage materials.

Keywords: hydrogen storage material; mischmetal intermetallic compounds; metal hydride

PACS number: 86.40K

Received April 2003

Peter Tcholakov St. Kliment Ohridski Sofia University Faculty of Physics, Department of Physics of Condensed Mater 1164 Sofia, Blvd. J. Bourchier 5