

**(310-043) - Microstructure And Electrochemical Properties Of The  
La<sub>0.7</sub>Mg<sub>0.3</sub>Al<sub>0.3</sub>Mn<sub>0.4</sub>Co<sub>0.5</sub>Nb<sub>x</sub>Ni(3.8 -x) (x= 0.5 -1.8) Hydride Alloys**

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In the last years, much attention was paid to the La–Ni system. Rare earth-based AB<sub>5</sub>-type alloys have been exploited as negative electrode materials in commercial Ni/MH cells, where A is a rare earth and B a transition metal. In this work, the structure and electrochemical properties of the. In this work, in order to improve the cyclic stability of the La–Ni type hydrogen storage alloys and reveal the function of Nb in this system alloys, the La<sub>0.7</sub>Mg<sub>0.3</sub>Al<sub>0.3</sub>Mn<sub>0.4</sub>Co<sub>0.5</sub>Nb<sub>x</sub>Ni(3.8 -x) (x= 0.5 -1.8) alloy was selected and Nb was added in B-side of the alloy with the mole number being 0.5,0.8,1.0,1.8, respectively. Microstructure and phase composition of the alloy have been investigated using inductively coupled plasma – atomic emission spectrometry (ICP-AES), scanning electron microscopy (SEM), energy dispersive X-ray analysis (EDX) and X-ray diffraction analysis (XRD).

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