Marek Polański

Lista publikacji

- październik 2011

I. Prace oryginalne (rozdziały w książkach zbiorowych, artykuły w czasopismach):

1. Norek M., Stępniowski W. J., **Polański M.**, Zasada D., Bojar Z., Bystrzycki J., ***A comparative study on the hydrogen absorption of thin films at room temperature deposited on non-porous glass substrate and nano-porous anodic aluminum oxide (AAO) template***, *International Journal of Hydrogen Energy* 36: 11777-11784.

2. Norek M., Nielsen T. K., **Polański M.**, Kunce I., Płocioski T., Jaroszewicz L. R., Cerenius Y., Jensen T. R., Bystrzycki J., ***Synthesis and decomposition mechanisms of ternary Mg2CoH 5 studied using in- situ synchrotron X-ray diffraction***, *International Journal of Hydrogen Energy* 36: 10760-10770.

3. Nielsen T. K., **Polański M.**, Zasada D., Javadian P., Besenbacher F., Bystrzycki J., Skibsted J., Jensen T. R., ***Improved hydrogen storage kinetics of nanoconfined NaAlH4 catalyzed with TiCl3 nanoparticles***, *ACS Nano* 5: 4056-4064.

4. **Polański M.**, Bystrzycki J., Varin R. A., Plocinski T., Pisarek M., 2011, ***The effect of chromium (III) oxide (Cr2O3) nanopowder on the microstructure and cyclic hydrogen storage behavior of magnesium hydride (MgH2)***, *Journal of Alloys and Compounds* 509: 2386-2391.

5. Varin R.A., Zbroniec L., **Polański M.**, Bystrzycki J., 2011, ***A review of recent advances on the effects of microstructural refinement and nano-catalytic additives on the hydrogen storage properties of metal and complex Hydrides***, *Energies* 4: 1-25.

6. **Polański M.**, Bystrzycki J., Varin R. A., Plocinski T., 2011, ***Rapid hydrogenation at 30°C of magnesium (Mg) and iron (Fe) nanocomposite obtained through a decomposition of Mg2FeH6 precursor***, *International Journal of Hydrogen Energy* 36: 1059-1065.

7. Varin R. A., Zaranski Z., Czujko T., **Polański M.**, Wronski Z. S., 2011, ***The composites of magnesium hydride and iron-titanium intermetallic***, *International Journal of Hydrogen Energy* 36: 1177-1183.

8. **Polanski M.**, Nielsen T. K., Cerenius Y., Bystrzycki J., Jensen T. R., 2010, ***Synthesis and decomposition mechanisms of Mg2FeH6 studied by in-situ synchrotron X-ray diffraction and high-pressure DSC***, *International Journal of Hydrogen Energy* 35: 3578-3582**.**

9. Varin R. A., Jang M., Polanski M., 2010, ***The effects of ball milling and molar ratio of LiH on the hydrogen storage properties of nanocrystalline lithium amide and lithium hydride (LiNH2+LiH) system***, *Journal of Alloys and Compounds* 491: 658-667.

10. **Polanski M.**, Plocinski T., Kunce I., Bystrzycki J., 2010, ***Dynamic synthesis of ternary Mg2FeH6***, *International Journal of Hydrogen Energy* 35: 1257-1266.

11. **Polański M.**, Bystrzycki J., 2009, ***Comparative studies of the influence of different nano-sized metal oxides on the hydrogen sorption properties of magnesium hydride***, *Journal of Alloys and Compounds* 486(1-2): 697-701.

12. **Polański M.**, Bystrzycki J., 2009, ***The influence of different additives on the solid-state reaction of magnesium hydride (MgH2) with Si***, *International Journal of Hydrogen Energy* 34(18): 7692-7699.

13. Bystrzycki J., **Polański M.**, Plocinski T., 2009, ***Nano-engineering approach to destabilization of magnesium hydride (MgH2) by solid-state reaction with Si***, *Journal of Nanoscience and Nanotechnology* 9(6): 3441-3448.

14. Bystrzycki J., **Polański M.**, Malka I. E., Komuda A., 2009, ***Hydriding properties of Mg - Al - Zn quasicrystal powder produced by mechanical alloying***, *Zeitschriften fur Kristallographie* 2241-2: 105-108.

15. Bystrzycki J., Płocioski T., Zielioski W., Wiśniewski Z., **Polański M.**, Mróz W., Bojar Z., Kurzdłowski K. J., 2009, ***Nano-engineering of magnesium hydride for hydrogen storage***, *Microelectronic Engineering* 86: 4-6: 889-891.

16. **Polański M.**, Bystrzycki J., Plocinski T., 2008, ***The effect of milling conditions on microstructure and hydrogen absorption/desorption properties of magnesium hydride (MgH2) without and with Cr2O3 nanoparticles***, *International Journal of Hydrogen Energy* 33 (7): 1859-1867**.**

17. Bystrzycki J., **Polański M.**, Perzyna K., 2007, ***Badania materiałów do przechowywania wodoru w Wojskowej Akademii Technicznej***, *Chemik* 1: 19-20.