

參考文獻:

- [1]: Katsuhiko Shinyama, Yoshifumi Magari, Kiyoshi Kumagae, Hiroshi Nakamura, Toshiyuki Nohma, Masao Takee, Koji Ishiwa. ,” *Deterioration mechanism of nickel metal-hydride batteries for hybrid electric vehicles* ”, Journal of Power Sources 141 (2005) 193-197.
- [2]: Otmar Bitsche, Guenter Gutmann., “*Systems for hybrid cars*”, Journal of Power Sources 127 (2004) 8-15.
- [3]: R. F. Nelson.,’ *High-power batteries for the new 36/42 V automotive systems*”, Journal of Power Sources 107 (2002) 226-239.
- [4]: M.A. Fetcenko, S.R. Ovshinsky, B. Reichman, K. Young, C. Fierro, J. Koch, A. Zallen, W. Mays, T. Ouchi. , “*Recent advances in NiMH battery technology* ” ,Journal of Power Sources 165 (2007) 544-551.
- [5]: U. Köhler, J. Kümpers, M. Ullrich. , “*High performance nickel-metal hydride and lithium-ion batteries* ”, Journal of Power Sources 105 (2002) 139-144.
- [6]: N. Furukawa., “*Development and commercialization of nickel-metal hydride secondary batteries* ”, Journal of Power Sources 51(1994)45-59
- [7]: 陳世渝 鎳氫化物電池的材料與技術,工業材料,111 期,77-85 頁,民 85 年 3 月.
- [8]: Bennet P.D, Bullocl, K.R. Fiorino, M.E. , “*Aqueous Rechargeable Batteries*”, The Electrochemical Society Interface 4(1995)26-30
- [9]: 黃鐵生, 儲氫合金概論, 工業材料, 111 期, 97-107 頁, 1996.
- [10]: Sakai, Ishikawa, Oguro., “*Effect of Microencapsulation of Hydride Storage Alloy on the Performance of Sealed Nickel-Metal Hydride Batteries*”, J. Electrochem. Soc. 134(1987)558/
- [11] 彭宗平, 黃木村, 陳永輝, 儲氫合金在鎳氫化物電池之應用, 工業材料, 111 期, 86-95 頁, 1996.
- [12]: W.K. Zhang, X.H. Xia, H. Huang, Y.P. Gan, J.B. Wu, J.P. Tu, ” *High-rate discharge properties of nickel hydroxide/carbon composite as positive electrode for Ni/MH batteries* “ , Journal of

Power Sources 184 (2008) 646-651. °

- [13]: Xiangming He, Weihua Pu, Hongwei Cheng, Changyin Jiang, Chunrong Wan,:" *Granulation of nano-scale Ni(OH)<sub>2</sub> cathode materials for high power Ni-MHbatteries* " ,Energy Conversion and Management 47 (2006) 1879-1883.
- [14]: Masaru Yao, Kazuki Okuno, Tsutomu Iwaki,Masahiro Kato, Keizo Harada, Jin-Joo Park,Shigeo Tanase, and Tetsuo Sakai, "*Influence of Nickel Foam Pore Structure on the High-Rate Capability of Nickel/metal-Hydride Batteries*",J. Electrochem. Soc. 154(7) 709-714
- [15]: Masaru Yao, Kazuki Okuno, Tsutomu Iwaki, Shigeo Tanase, Keizo Harada, Masahiro Kato, Katsuji Emura, Tetsuo Sakai," *High-power nickel/metal-hydride battery using new micronetwork substrate: Discharge rate capability and cycle-life performance* ", Journal of Power Sources 171 (2007) 1033-1039.
- [16]: Xuezeng Zhang, Zhixin Gong, Shumei Zhao, Mingming Geng, Yan Wang, Derek O. Northwood, "*High-temperature characteristics of advanced Ni-MH batteries using nickel electrodes containing CaF<sub>2</sub>* ",Journal of Power Sources 175 (2008) 630-634.
- [17]: Yanhui Zhang, Lifang Jiao, Huatang Yuan, Yunyun Zhang, Li Liu, Yijing Wang," Effect of Si on electrochemical hydrogen storage properties of crystalline Co " ,International Journal of Hydrogen Energy 33 (2008) 1317-1322.
- [18]: A. Visintin , H.A. Peretti , C.A.Tori , W.E Triaca," *Hydrogen absorption characteristics and electrochemical properties of Ti substituted Zr-based AB<sub>2</sub> alloys* " ,International Journal of Hydrogen Energy 26 (2001) 683-689.
- [19]: G. D. Adzic, J. R. Johnson, S. Mukerjee, J. McBreen and J. J. Reilly," *Function of cobalt in AB<sub>5</sub>H<sub>x</sub> electrodes*", Journal of Alloys and Compounds 253(1997)579-582
- [20]: Sridhar Kumar, Ahzng, Petrov , Rostami ,Srinivasan , Adzic ,Johnson ,Reilly ,Lim, "*Effect of Ce,Co,and Sn Substitution on Gas Phase and Electrochemical Hydride/Dehydriding Oroperties of LaNi<sub>5</sub>*",J. Electrochem. Soc.142(1995)3429-3433.
- [21]:Johnson, Mukerjee ,McBreen ,Reilly, "*Effect of Ce Composition on the Structure and Electronic Characteristics of Some Metal Hydride Electrodes: A XANES and EXAFS Investigation the*

*Electrochemical*”, Society Proceedings Volume 94-27.

- [22]: Ratnakumar , Witham , Bowman, Hightower, Fultz, ”*Electrochemical Studies on  $LaNi_{5-x}Sn_x$  Metal Hydride Allots*”, J. Electrochem. Soc. 143(1996)2578-2583.
- [23]: Shang Li, Wenyu Pan, Zongqiang Mao, “*A comparative study of the electrochemical hydrogen storage properties of activated carbon and well-aligned carbon nanotubes mixed with copper*”, International Journal of Hydrogen Energy 30 (2005) 643 – 648.
- [24]: Shang Li, Guiling Pan, Ying Zhang, Xueping Gao , Jingqiu Qua, Jie Yana, Feng Wua, Deying Song” *Electrochemical properties of  $MmNi_{3.6}Co_{0.7}Al_{0.3}Mn_{0.4}$  alloy containing carbon nanotubes*”, Journal of Alloys and Compounds 353 (2003) 295–300.
- [25]: Z.W. Lu, S.M. Yao, G.R. Li, J.Q. Qu, X.P. Gao, “*Electrochemical hydrogen storage of  $NdMg_{12}$ –Ni composites modified with carbon nanotubes and BN particles*”, Journal of Alloys and Compounds 463 (2008) 378–384.
- [26]: Haiyan Zhang, Yuting Chen, Qingfeng Zhu, Guoqing Zhang, Yimin Chen” *The effects of carbon nanotubes on the hydrogen storage performance of the alloy electrode for high-power Ni–MH batteries*”, international journal of hydrogen energy 33 ( 2008 ) 6704 – 6709.
- [27]: Yi Wang, Weiqiao Deng, Xuwei Liu, Shuangyin Wang, Xin Wang, ” *Electrochemical properties of ball-milled  $LaMg_{12}$ –Ni composites containing carbon nanotubes*”, international journal of hydrogen energy 34 ( 2009 ) 1444 – 1449.
- [28]: F.X. Wang , X.P. Gao, Z.W. Lu , S.H. Ye , J.Q. Qua, F. Wu, H.T. Yuan a, D.Y. Songa.” *Electrochemical properties of Mg-based alloys containing carbon nanotubes*”, Journal of Alloys and Compounds 370 (2004) 326–330.
- [29]: Yong Chen, Ping Wang, Chang Liu, Hui-Ming Cheng.” *Improved hydrogen storage performance of Li–Mg–N–H materials by optimizing composition and adding single-walled carbon nanotubes*”, International Journal of Hydrogen Energy 32 (2007) 1262 – 1268.
- [30]: Xiaojuan Fu, Haiyan Zhang, Yiming Chen, Shunhua Li, Shuangping Yi, Chun Zhou, Minghua Li, Yanjuan Zhu, Jin Chen, ” *The effect of carbon nanotubes on the electrochemical hydrogen storage performance of*

- LaNi<sub>5</sub> rare earth alloy*”, *Physica E* 25 (2005) 414–420.
- [31]: Teruhiko Imoto, Kikuko Kato, Nobuyuki Higashiyama, Mamoru Kimoto, Yasuhiko Itoh, Koji Nishio,” *Influence of surface treatment by HCl aqueous solution on electrochemical characteristics of a Mm(Ni–Co–Al–Mn)<sub>4.76</sub> alloy for nickel–metal hydride batteries* ”, *Journal of Alloys and Compounds* 282 (1999) 274-278.
- [32]: Weon-Kyung Choi, Katsuhiko Yamataka, Hiroshi Inoue, Chiaki Iwakura, “*Kinetic study on the surface treatment of a Zr<sub>0.9</sub>Ti<sub>0.7</sub>Ni<sub>1.1</sub>Co<sub>0.1</sub>Mn<sub>0.6</sub>V<sub>0.2</sub> electrode with a boiling alkaline solution* ”, *Journal of Alloys and Compounds* 290 (1999) 110-113.
- [33]: Hyun-Jai Lee, Dong-Cheol Yang, Chan-Jin Parka,,Choong-Nyeon Parka, Hee-Jin Jangb, “*Effects of surface modifications of the LMNi<sub>3.9</sub>Co<sub>0.6</sub>Mn<sub>0.3</sub>Al<sub>0.2</sub> alloy in a KOH/NaBH<sub>4</sub> solution upon its electrode characteristics within a Ni–MH secondary battery*”, *international journal of hydrogen energy* 34 ( 2009 ) 481 – 486.
- [34]: Weixiang Chen, “*Effects of surface treatments of MlNi<sub>4.0</sub>Co<sub>0.6</sub>Al<sub>0.4</sub> hydrogen storage alloy on the activation, charge/discharge cycle and degradation of Ni/MH batteries*”, *Journal of Power Sources* 92 (2001) 102-107.
- [35]: K. Yanagimoto , K. Majimab, S. Sunada , T. Sawada, “Effects of surface modification on surface structure and electrochemical properties of Mm(Ni,Co,Mn,Al)<sub>5.0</sub> alloy powder”, *Journal of Alloys and Compounds* 377 (2004) 174–178
- [36]: S. N. Jenq, H. W. Yang, Y. Y. Wang, C. C. Wan, “*Modification of Ti<sub>0.35</sub>Zr<sub>0.65</sub>Ni<sub>1.2</sub>V<sub>0.6</sub>Mn<sub>0.2</sub> alloy powder by electroless nickel coating and its influence on discharge performance* ”, *Journal of Power Sources* 57(1995)111-118.
- [37]: Mao-Sung Wu, Hong-Rong Wu, Yung-Yun Wang, Chi-Chao Wan, ” *Surface treatment for hydrogen storage alloy of nickel/metal hydride battery* ”, *Journal of Alloys and Compounds* 302(2000) 248-257.
- [38]: S.N. Jenq, H.W. Yang, Y.Y. Wang, C.C. Wan,” *Discharge performance of Ti<sub>0.35</sub>Zr<sub>0.65</sub>Ni<sub>1.2</sub>V<sub>0.6</sub>Mn<sub>0.2</sub> alloy electrode modified by electroless nickel plating S.N. Jenq, H.W.*”, *materials chemistry and physics* 48 (1997) 10-16.
- [39]: Mao-Sung Wu, Hong-Rong Wu, Yung-Yun Wang, Chi-Chao Wan, “*Electrochemical investigation of hydrogen-storage alloy electrode with duplex surface modification* ”, *International Journal of Hydrogen energy* 29 (2004) 1263-1269.

- [40]: F. Feng, D. O. Northwood, "Effect of surface modification on the performance of negative electrodes in Ni/Mbatteries ", International Journal of Hydrogen energy 29 (2004) 955-960.
- [41]: M.Raju, M.V. Ananth, L. Vijayaraghavan, " Influence of electroless coatings of Cu, Ni-P and Co-P on  $MmNi_{3.25}Al_{0.35}Mn_{0.25}Co_{0.66}$  alloy used as anodes in Ni-MH batteries", Journal of Alloys and Compounds 475 (2009) 664-671
- [42]:S.J. Choi, J. Choi, C.Y.Seo, C.N. Park, "An electroless copper plating method for Ti, Zr-based hydrogen storage alloys" , Journal of Alloys and Compounds 356-357(2003)725-729.
- [43]:Chiaki Iwakura, Masao Matsuoka, Katsuhiko Asai, Tatsoki Kohno, "Surface modification of metal hydride negative electrodes and their charge/discharge performance ", Journal of Power Source 38(1992)335-343.
- [44]: James Ross Macdonald, " Impedance spectroscopy: old problems and new developments ", *Electrochimica Acta* 35(1990)1483-1492.
- [45]:Christopher M.A.Brett and Ana Maria Oliveira Breet, "Electrochemistry Principles ,Methods, and Applications" ,Pxford Csience Oublication,1993.
- [46]:蔡瑞龍,儲氫金屬電極之改質與化成之研究, 碩士論文,台灣 台中 ,東海大學論文,1998.
- [47]:Ross, Taguchi Techniques for Quality Engineering,McGraw-Hill Book Comoany,1988.
- [48]: Christensen, "Analysis of Variance, Design and Regression, Applied Statistical Methods",Chapman&Hill,1996.
- [49]: Schmidt ,Launsby , "Understanding Industrial Designed Experiments",3<sup>rd</sup> ed.,Air Academy Press,1992.
- [60]: A. Abdel Aal , A. Shaaban, Z. Abdel Hamid, "Nanocrystalline soft ferromagnetic Ni-Co-P thin film onAl alloy by low temperature electroless deposition", Applied Surface Science 254 (2008) 1966-1971.
- [61]: H.G. Ying, M. Yan , T.Y. Ma, J.M. Wu, L.Q. Yu, "Effects of  $NH_4F$  on the deposition rate and buffering capability of electroless Ni-P plating solution ",Surface & Coatings Technology 202 (2007)

- [62]: Guojin Lu and Giovanni Zangari , Journal of The Electrochemical Society , 150 (11)C777-C786 (2003) .
- [63]: L. Magagnin , V. Sirtori , S. Seregni , A. Origo , P.L. Cavallotti ,” *Electroless Co-P for diffusion barrier in Pb-free soldering* ”, Electrochimica Acta 50 (2005) 4621-4625
- [64]: M. Geng, F. Feng, J. Han, A.J. Matchett, D.O. Northwood,” *Anodic polarization and galvanostatic investigation of a metal hydride alloy electrode*”, International Journal of Hydrogen Energy 26 (2001) 133-137.
- [65]: P.-A. Gay , J.M. Limat , P.-A. Steinmann , J. Pagetti , “*Characterisation and mechanical properties of electroless NiP-ZrO<sub>2</sub> coatings*”, Surface & Coatings Technology 202(2007) 1167-1171
- [66] :Xu-Cheng Wang, Wen-Bin Cai, Wei-Jiang Wang, Hou-Tian Liu, Zu-Zhan Yu,“*Effects of ligands on electroless Ni-P alloy plating from alkaline citrate-ammonia solution* ”,Surface and Coatings Technology 168 (2003) 300-306
- [67]: Xianxia Yuan,Naixin Xu.” *Determination of hydrogen diffusion coefficient in metal hydride electrode by cyclic voltammetry* ”, Journal of Alloys and Compounds 316 (2001) 113-117.
- [68]: Weihong Liu, Haoqing Wu, Yongquan Lei, Qidong Wang. “*Reaction kinetics of amorphous Mg<sub>50</sub>Ni<sub>50</sub> hydride electrode* ”,Journal of Alloys and Compounds 346 (2002) 244-249.
- [69]:林世和，鎳/儲氫合金電池中鎳極化成程序之探討與最佳化，碩士論文，台灣 台中 ，東海大學論文，1997.
- [70]: Jianzhen Shi, Feng Wu , Daozhong Hu, Shi Chen, Licai Mao, Guoqing Wang,” *The influence of hydrogen intercalation on inner pressure of Ni/MH battery during fast charge* ”, Journal of Power Sources 161 (2006) 692-701.
- [71]: Qiuyu Zhang, Min Wu, Wen Zhao,”*Electroless nickel plating on hollowglass microspheres*”, Surface & Coatings Technology 192 (2005) 213- 219

- [72]: Chiaki Iwakura, Masao Matsuoka, Katsuhiko Asai and Tatsuoki Kohno, " *Surface modification of metal hydride negative electrode and their charge/discharge performance*", Journal of Power Source.
- [73]: M. Raju, M.V. Ananth, L. Vijayaraghavan , " *Rapid charging characterization of  $MmNi_{3.03}Si_{0.85}Co_{0.60}Mn_{0.31}Al_{0.08}$  alloy used as anodes in Ni-MH batteries*", international journal of hydrogen energy 34(2009)3500 – 3505
- [74]: Weixiang Chen , Zhiyuan Tang , Hetong Guo , Zhaolin Liu , Changpin Chen , Qidong Wang , " *Effects of surface treatment on performances of metal hydride electrodes and NiMH batteries*", Journal of Power Sources 74(1998)34–39
- [75]: J.B. Wu , J.P. Tu , T.A. Han, Y.Z. Yang , W.K. Zhang , X.B. Zhao, " *High-rate dischargeability enhancement of Ni/MH rechargeable batteries by addition of nanoscale CoO to positive electrodes*", Journal of Power Sources 156 (2006) 667–672.
- [76]: Xiangyu Zhao, Liqun Ma, Yi Ding, Meng Yang, Xiaodong Shen, " *Novel surface treatment for hydrogen storage alloy in Ni/MH battery*", international Journal of hydrogen energy 34(2009)3506–3510
- [77]: M. Luisa Soria, Joaquín Chacón, J. Carlos Hernández, Daniel Moreno, Araceli Ojedam, " *Nickel metal hydride batteries for high power applications*", Journal of Power Sources 96 (2001)68-75.
- [78]: Bard, Faulkner, *Electrochemical Methods Fundamentals and Applications* , John Wiley & Sons, New York, 1980.