

第六章 參考文獻

- [1] H. Ohno, **“Making Nonmagnetic Semiconductors Ferromagnetic”**, Science **281**, 951 (1998)
- [2] H. Munekata, H. Ohno, S. von Molnar, Armin Segmüller, L. L. Chang and L. Esaki, **“Diluted Magnetic III-V Semiconductors”**, Phys. Rev. Lett. **63**, 1849 (1989)
- [3] Y. Matsumoto, M. Murakami, T. Shono, T. Hasegawa, T. Fukumura, M. Kawasaki, P. Ahmet, T. Chikyow, S. Y. Koshihara and H. Koinuma, **“Room-Temperature Ferromagnetism in Transparent Transition Metal-Doped Titanium Dioxide”**, Science **291**, 854 (2001)
- [4] T. Dietl, H. Ohno, F. Matsukura, J. Cibert and D. Ferrand, **“Zener Model Description of Ferromagnetism in Zinc-Blende Magnetic Semiconductors”**, Science **287**, 1019 (2000)
- [5] K. Sato and H. Katayama-Yoshida, **“Material Design for Transparent Ferromagnets with ZnO-Based Magnetic Semiconductors”**, Jpn. J. Appl. Phys., Part 2 **39**, L555 (2000)
- [6] K. Sato and H. Katayama-Yoshida, **“First principles materials design for semiconductor spintronics”**, Semicond. Sci. Technol. **17**, 367 (2002)
- [7] K. Sato and H. Katayama-Yoshida, **“Ab initio Study on the Magnetism in ZnO-, ZnS-, ZnSe and ZnTe-Based Diluted Magnetic Semiconductors”**, Phys. Stat. Sol. **229**, 673 (2002)
- [8] H. Katayama-Yoshida and K. Sato, **“Materials design for semiconductor spintronics by ab initio electronic-structure**

- calculation**", Physica B **327**, 337 (2003)
- [9] S. Datta and B. Das, **"Electronic analog of the electro-optic modulator"**, Appl. Phys. Lett., **56**, 665 (1990)
- [10] M. N. Baibich, J. M. Broto, A. Fert, F. Nguyen Van Dau and F. Petroff, **"Giant Magnetoresistance of (001)Fe/(001)Cr Magnetic Superlattices"**, Phys. Rev. Lett. **61**, 2472 (1988)
- [11] M. Julliere, **"Tunneling between ferromagnetic films"**, Phys. Lett. A **54**, 225 (1975)
- [12] Ahsan M. Nazmul, S. Sugahara and M. Tanaka, **"Ferromagnetism and high Curie temperature in semiconductor heterostructures with Mn δ -doped GaAs and p-type selective doping"**, Phys. Rev. B **67**, 241308 (2003)
- [13] D. Chiba, K. Takamura, F. Matsukura and H. Ohno, **"Effect of low-temperature annealing on (Ga,Mn)As trilayer structures"**, Appl. Phys. Lett. **82**, 3020 (2003)
- [14] K. W. Edmonds, P. Bogusławski, K. Y. Wang, R. P. Campion, S. N. Novikov, N. R. S. Farley, B. L. Gallagher, C. T. Foxon, M. Sawicki, T. Dietl, M. Buongiorno Nardelli and J. Bernholc, **"Mn Interstitial Diffusion in (Ga,Mn)As"**, Phys. Rev. Lett. **92**, 037201 (2004)
- [15] M. L. Reed, N. A. El-Masry, H. H. Stadelmaier, M. K. Rytums, M. J. Reed, C. A. Parker, J. C. Roberts and S. M. Bedair, **"Room temperature ferromagnetic properties of (Ga,Mn)N"**, Appl. Phys. Lett. **79**, 3473 (2001)
- [16] H. Saito, V. Zayets, S. Yamagata and K. Ando, **"Room-Temperature Ferromagnetism in a II-VI Diluted Magnetic Semiconductor"**

- Zn_{1-x}Cr_xTe**", Phys. Rev. Lett. **90**, 207202 (2003)
- [17]H. Saeki, H. Tabata and T. Kawai, **"Magnetic and electric properties of vanadium doped ZnO films"**, Solid State Commun. **120**, 439 (2001)
- [18]P. Sharma, A. Gupta, K. V. Rao, F. J. Owens, R. Sharma, R. Ahuja, J. M. Osorio Guillen, B. Johansson and G. A. Gehring, **"Ferromagnetism above room temperature in bulk and transparent thin films of Mn-doped ZnO"**, Nat. Mater. **2**, 673 (2003)
- [19]K. Ueda, H. Tabata and T Kawai, **"Magnetic and electric properties of transition-metal-doped ZnO films"**, Appl. Phys. Lett. **79**, 988 (2001)
- [20]J. J. Wu, S. C. Liu and M. H. Yang, **"Room-temperature ferromagnetism in well-aligned Zn_{1-x}Co_xO nanorods"**, Appl. Phys. Lett. **85**, 1027 (2004)
- [21]W. K. Park, R. J. Ortega-Hertogs, J. S. Moodera, A. Punnoose and M. S. Seehra **"Semiconducting and ferromagnetic behavior of sputtered Co-doped TiO₂ thin films above room temperature"**, J. Appl. Phys. **91**, 8093 (2002)
- [22]Z. Wang, J. Tang, L. D. Tung, W. Zhou and L. Spinu, **"Ferromagnetism and transport properties of Fe-doped reduced-rutile TiO_{2-δ} thin films"**, J. Appl. Phys. **93**, 7870 (2003)
- [23]N. H. Hong, J. Sakai and A. Hassini, **"Ferromagnetism at room temperature with a large magnetic moment in anatase V-doped TiO₂ thin films"**, Appl. Phys. Lett. **84**, 2602 (2004)

- [24]S.J. Pearton, C. R. Abernathy, D. P. Norton, A. F. Hebard, Y. D. Park, L. A. Boatner and J. D. Budai, **“Advances in wide bandgap materials for semiconductor spintronics”**, Material Science and Engineering R, **40**, 137 (2003)
- [25]C. Liu, F. Yun and H. Morkoc, **“Ferromagnetism of ZnO and GaN: A Review”**, Journal of Materials Science: Materials in Electronics **16**, 555 (2005)
- [26]J. C. A. Huang and H. S. Hsu, **“Inspection of magnetic semiconductor and clustering structure in CoFe-doped ZnO films by bias-dependent impedance spectroscopy”**. Appl. Phys. Lett. **87**, 132503 (2005)
- [27]S. H. Jeong, B. S. Kim and B. T. Lee, **“Photoluminescence dependence of ZnO films grown on Si(100) by radio-frequency magnetron sputtering on the growth ambient”**, Appl. Phys. Lett. **82**, 2625 (2003)
- [28]S. J. Han, J. W. Song, C. H. Yang, S. H. Park, J. H. Park, Y. H. Jeong and K. W. Rhie, **“A key to room-temperature ferromagnetism in Fe-doped ZnO: Cu”**, Appl. Phys. Lett. **81**, 4212 (2002)
- [29]H. T. Lin, T. S. Chin, J. C. Shih, S. H. Lin, T. M. Hong, R. T. Huang, F. R. Chen and J. J. Kai, **“Enhancement of ferromagnetic properties in $\text{Zn}_{1-x}\text{Co}_x\text{O}$ by additional Cu doping”**, Appl. Phys. Lett. **85**, 621 (2004)
- [30]D. P. Norton, M. E. Overberg, S. J. Pearton, K. Pruessner, J. D. Budai, L. A. Boatner, M. F. Chisholm, J. S. Lee, Z. G. Khim, Y. D. Park and R. G. Wilson, **“Ferromagnetism in cobalt-implanted ZnO”**, Appl. Phys. Lett. **83**, 5488 (2003)

- [31]D. P. Norton, S. J. Pearton, A. F. Hebard, N. Theodoropoulou, L. A. Boatner and R. G. Wilson, **“Ferromagnetism in Mn-implanted ZnO:Sn single crystals”**, Appl. Phys. Lett. **82**, 239 (2003)
- [32]A. Che Mofor, A. El-Shaer, A. Bakin, A. Waag, H. Ahlers, U. Siegner, S. Sievers, M. Albrecht, W. Schoch, N. Izyumskaya, V. Avrutin, S. Sorokin, S. Ivanov and J. Stoimenos, **“Magnetic property investigations on Mn-doped ZnO Layers on sapphire”**, Appl. Phys. Lett. **87**, 062501 (2005)
- [33]D. B. Buchholz, R. P. H. Chang, J. H. Song and J. B. Ketterson, **“Room-temperature ferromagnetism in Cu-doped ZnO thin films”**, Appl. Phys. Lett. **87**, 082504 (2005)
- [34]C. Song, K. W. Geng, F. Zeng, X. B. Wang, Y. X. Shen, F. Pan, Y. N. Xie, T. Liu, H. T. Zhou and Z. Fan, **“Giant magnetic moment in an anomalous ferromagnetic insulator: Co-doped ZnO”**, Phys. Rev. B **73**, 024405 (2006)
- [35]K. Potzger, S. Zhou, F. Eichhorn, M. Helm, W. Skorupa, A. Mücklich, J. Fassbender, T. Herrmannsdörfer and A. Bianchi, **“Ferromagnetic Gd-implanted ZnO single crystals”**, J. Appl. Phys. **99**, 063906 (2006)
- [36]N. Akiba, D. Chiba, K. Nakata, F. Matsukura, Y. Ohno and H. Ohno, **“Spin-dependent scattering in semiconducting ferromagnetic (Ga,Mn)As trilayer structures”**, J. Appl. Phys. **87**, 6436 (2000)
- [37]M. Tanaka and Y. Higo, **“Large Tunneling Magnetoresistance in GaMnAs/AlAs/GaMnAs Ferromagnetic Semiconductor Tunnel Junctions”**, Phys. Rev. Lett. **87**, 026602 (2001)
- [38]D. Chiba, F. Matsukura and H. Ohno, **“Tunnelingmag**

- netoresistance in (Ga,Mn)As-based heterostructures with a GaAs barrier**", Physica E **21**, 966 (2004)
- [39]H. Toyosaki, T. Fukumura, K. Ueno, M. Nakano and M. Kawasaki, **"A Ferromagnetic Oxide Semiconductor as Spin Injection Electrode in Magnetic Tunnel Junction"**, Jpn. J. Appl. Phys. **44**, L896 (2005)
- [40]W. H. Meiklejohn and C. P. Bean, **"New Magnetic Anisotropy"**, Phys. Rev. **102**, 1413 (1956)
- [41]J. Nogués and Ivan K. Schuller, **"Exchange bias"**, J. Magn. Magn. Mater. **192**, 203 (1999)
- [42]K. F. Eid, M. B. Stone, K. C. Ku, O. Maksimov, P. Schiffer, N. Samarth, T. C. Shih and C. J. Palmstrøm, **"Exchange biasing of the ferromagnetic semiconductor Ga_{1-x}Mn_xAs"**, Appl. Phys. Lett. **85**, 1556 (2004)
- [43]H. X. Liu, Stephen Y. Wu, R. K. Singh and N. Newman, **"Exchange biasing of ferromagnetic Cr-doped GaN using a MnO overlayer"**, J. Appl. Phys. **98**, 046106 (2005)
- [44]A. C. Tuan, J. D. Bryan, A. B. Pakhomov, V. Shutthanandan, S. Thevuthasan, D. E. McCready, D. Gaspar, M. H. Engelhard, J. W. Rogers, Jr., K. Krishnan, D. R. Gamelin and S. A. Chambers, **"Epitaxial growth and properties of cobalt-doped ZnO on α -Al₂O₃ single-crystal substrates"**, Phys. Rev. B **70**, 054424 (2004)
- [45]A. E. Berkowitz, M. F. Hansen, R. H. Kodama, Y. J. Tang, J. I. Hong and David J. Smith, **"Establishing exchange bias below T_N with polycrystalline Ni_{0.52}Co_{0.48}O/Co bilayers"**, Phys. Rev. B **72**, 134428

(2005)

- [46]Z. Wang, Y. Hong, J. Tang, C. Radu, Y. Chen, L. Spinu, W. Zhou and L. D. Tung, **“Giant negative magnetoresistance of spin polarons in magnetic semiconductors–chromium-doped Ti_2O_3 thin films”**, Appl. Phys. Lett. **86**, 082509 (2005)
- [47]S. M. Zhou, D. Imhoff, K. Y. Zhang and Y. L. Wang, **“Effect of field cooling on magnetic properties of ultrafine CoO/Co particles”**, Appl. Phys. A **81**, 115 (2005)
- [48]R. K. Zheng, G. H. Wen, K. K. Fung and X. X. Zhang, **“Training effect of exchange bias in γ - Fe_2O_3 coated Fe nanoparticles”**, Phys. Rev. B **69**, 214431 (2004)
- [49]R. K. Zheng, G. H. Wen, K. K. Fung and X. X. Zhang, **“Giant exchange bias and the vertical shifts of hysteresis loops in γ - Fe_2O_3 -coated Fe nanoparticles”**, J. Appl. Phys. **95**, 5244 (2004)