

參 考 文 獻

- [1] T. A. Brown, Gene Cloning and DNA Analysis, fourth edition, 2001.
- [2] M. Schena, Microarray Analysis, New Jersey, 2003.
- [3] M. Schena, D. Shalon, R. W. Davis and P. O. Brown, Science, 270,
pp. 467-470, 1995.
- [4] J. K. Gimzewski, Ch. Gerber, E. Meyer, R. R. Schlittler, Chem. Phys. Lett., 217,
pp. 589, 1994.
- [5] M. G. Schweyer, J. A. Hilton, J. E. Munson, J. C. Andle, J. M. Hammond, R. M.
Lec, Proc Ultrasonics Symposium, 1, pp. 371-374, 1997.
- [6] S. Martin. Proc Ultrasonics Symposium, 1, pp. 423-434 , 1996
- [7] S. L. Swartz, S. D. Kamamurthi, V. E. Wood, Proc. Mater. Res. Soc., 243,
pp. 533, 1992.
- [8] J. F. Scott, C. A. Paz de Araujo, Science, 246, pp. 1400, 1980.
- [9] C. D. E. Lakeman, J. F. Champion, and D. A. Payne, “Factors Affecting the
Sol-Gel Processing of PZT Thin Layer” , pp. 413.
- [10] C. D. E. Lakeman, and D. A. Payne, ” Processing Effect in the Sol-Gel

Preparation of PZT Dried Gels, Powders, and Ferroelectric Thin Layer” ,
J. Am. Ceram. Soc. , 75(11), pp. 3091-3096, 1992.

[11] S. J. Lockwood, R. W. Schwartz, B. A. Tuttle, and E. V. Thomas,
“Solution Chemistry Optimization of Sol-Gel Processed PZT Thin
Film” ,Mat. Res. Soc. Symp. Proc. , 310, pp. 275-280, 1993.

[12] A. C. Biochem, Analytical aspects of biosensors, 2000, 37, pp. 119-145.

[13] <http://www.cs.ucsb.edu/~mekab/Sensor/biosensor2.gif>

[14] W. John, “Design of resonant piezoelectric devices” , the Colonial Press Inc.
, 1969.

[15] 王志明，鈦酸鉛系焦電感測元件之研究，國立中山大學，博士論
文，2000。



[16] 工業技術研究院工業材料研究所 編印，精密陶瓷特性及檢測分析。

[17] L. B. ,H. H. Van Den Vlekkert and N. F. De Rooij, ” Hysteresis in
Al₂O₃-gate ISFETs” , Sensors and Actuators B , 2 , pp. 103-110 , 1990 .

[18] 武世香、虞惇、王貴華，感測器技術，第5期，pp. 52-58，1990。

[19] M. J. Schöning, D. Tsarouchas, L. Beckers, J. Schubert, W. Zander, P.
Kordos , H. Lüth, “A Highly Long-Tterm Stable Silicon-Based PH Sensor
Fabricated by Pulsed Llaser Deposition Technique” , Sensors and Actuators

B, 35 , pp. 228-233 , 1996.

- [20] C. Cané, A. Götz, A. Merlos, I. Gràcia, A. Errachid, P. Losantos, E. Lora-Tamayo, “Multilayer ISFET membranes for Microsystems Applications” , Sensors and Actuators B, 35, pp. 136-140 , 1996.
- [21] C. J. Brinker and G. W. Scherer, ” Sol-Gel Science-The Physics and Chemistry of Sol-Gel Processing” , Academic Press ,1990 .
- [22] T. Mikolajick, R. Kuhnhold and H. Ryssel, “The pH-sensing properties of tantalum pentoxide films fabricated by metal organic low pressure chemical vapor deposition” , Sensors and Actuators B , 44, pp. 262-267 , 1997.
- [23] J. J. Shyh and K. L. Mo, “Preparation and properties of sol-gel derived La-doped PbTiO_3 thin films” , Jpn. J. Appl. Phys., 34, pp. 5683-5688, 1995.
- [24] J. D. Mackenzie, “Glasses from melts and glasses from gels, a Comparison” , J. Non-Crystal Solids, 48, pp. 1-10, 1982.
- [25] 劉立基，固態物理學導論，高立圖書，第七板，1998。
- [26] 吳朗，電子陶瓷-壓電，全欣科技圖書，pp. 115-154。
- [27] T. D. Hadnagy, “Materials and production characterization requirements for

- the production of FRAM(R) memory products” , Integrated Ferroelectrics, 18, pp. 1-17, 1997.
- [28] H. Adachi, Y. Kuroda, T. Imahashi, and K. Yanagisawa, ” Preparation of Piezoelectric Thick Films using a Jet Printing System “, Jpn. J. Appl. Phys., 36, pp. 1159-1163, 1997.
- [29] M. Schena, D. Shalon, R. W. Davis and P. O. Brown, Science, 270, pp. 467-470, 1995.
- [30] J. K. Gimzewski, Ch. Gerber, E. Meyer, R. R. Schlittler, Chem. Phys. Lett., 217, pp. 589, 1994.
- [31] S. Martin, Proc Ultrasonics Symposium, 1, pp. 423-434, 1996.
- [32] S. L. Swartz, S. D. Kamamurthi, V. E. Wood, Proc. Mater. Res. Soc., 243, pp. 533, 1992.
- [33] J. F. Scott, C. A. Paz de Araujo, Science, 246, pp. 1400, 1980.
- [34] P. Verardi, M. Dinescu , F. Craciun, “Pulsed laser deposition and characterization of PZT thin films” , Applied Surface Science, 154, pp. 514-518, 2000.
- [35] M. L. Calzda, R. Sirela, F. Carmona and B. Jiménez, “Invesigation of a diol-based sol-gel process for the preparation of lead titanate

- materials” , J. Am. Ceram. Soc., 78, pp. 1802-1808, 1995.
- [36] B. Jirgensons and M. E. Straumanis, “Colloid Chemistry” , MvMillan Co., New York, 1962.
- [37] Schramm , ” Suspensions ; Fundamentals and Application Sin the Petroleum Industry” , AMER Chemical SOC., Washington, 251, pp. 30-44, 1996.
- [38] 陳三元，強介電薄膜之液相化學法製作，工業材料 108 期，1995。
- [39] D. R. Ulrich, “Sol-Gel processing” , Chemtech, pp. 795-797, 1986.
- [40] G. Yi, M. Sayer, ” Sol-Gel Processing of Complex Oxide Films” , Ceram. Bull. , 70, pp. 1173-1179, 1991.
- [41] J. D. Mackenzie, and Y. Xu, “Ferroelectric Materials by the Sol-Gel Method” , J. Sol-Gel Sci. &Tech. , 8, pp. 673-679, 1997.
- [42] B. Xu, N. G. Pai, Q. M. Wang , “Anti-ferroelectric Thin and Thick Films For High-Strain Micro-actuators”
- [43] S. H. Kim, Y. S. Choi, and C. E. Kim, ” Preparation of $\text{Pb}(\text{Zr}_{0.52}\text{Ti}_{0.48})\text{O}_3$ Thin films on Pt/RuO₂ double electrode by a new sol-gel route” , J. Mater. Res. , 12(6), pp. 1576-1581, 1997.
- [44] J. Lindner, M. Schumacher, M. Dauelsberg, F. Schienle, S. Miedl, D. Burgess,

- E. Merz, G. Strauch, H. Juergensen, ” Deposition of electro-ceramic thin films by MOCVD” , Advance Materials for Optics and Electronics, 10(3-5), pp. 163-167, 2000.
- [45] R. W. Vest, ” Metallo-Organic Decomposition(MOD) Processing of Ferroelectric and Electro-optic Films ; A Review” , Ferroelectrics, 102, pp. 53-68, 1990.
- [46] A. R. Raju, and C. N. R. Rao, ” Oriented ferroelectric thin films of PbTiO_3 , $(\text{Pb},\text{La})\text{TiO}_3$, and $\text{Pb}(\text{Zr},\text{Ti})\text{O}_3$ by nebulized spray pyrolysis” , Appl. Phys. Lett., 66(7), pp. 896-898, 1995.
- [47] W. Zhu, K. Yao, Z. Zhang, ” Design and fabrication of a novel piezoelectric multilayer actuator by thick-film screen printing technology” , Sensors and Actuators A - Physical, 86:(3), pp. 149-153, 2000.
- [48] T. Futakuchi, Y. Matsui, M. Adachi, ” Preparation of PbZrO_3 - PbTiO_3 - $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ thick films by screen printing” , Japanese Journal of Applied Physics part 1 - Regular Papers Short Notes & Review Papers, 38:(9B), pp. 5528-5530, 1999.
- [49] J. Van Tassel, C. A. Randall, ” Electrophoretic deposition and sintering of thin/thick PZT films” , Journal of the European Ceramic Society, 19:(6-7),

pp. 955-958, 1999.

- [50] J. S. Wright, L. F. Francis, " Effect of solution processing on PZT thin films Prepared by a hybrid MOD solution deposition route" , Journal of Electroceramics, 3:(3), pp. 261-268, 1999.
- [51] 黃雅儀，添加微粉於有機金屬鹽溶液中製備PZT鐵電厚膜之研究，清華材料所，碩士論文，1999。
- [52] 賴怡年，液相化學法製備鉛鈦酸鉛鐵電厚膜之研究，清華材料所，碩士論文，1999。
- [53] G. M. Vest and S. Singaram, " Synthesis of Metallo-Organic Compounds For MOD Powders and Films" , Mat. Res. Soc. Symp. Proc., 50, pp. 35, 1986.
- [54] S . Robrets , "Dielectric and Piezoelectric Properties of Barium" , Phys. Rev., 71, pp. 890-985, 1947.
- [55] B . Jaffe, W . R . Cook, Jr., and H. Jaffe, "Piezoelectric Ceramics" , Academic press London and New York.
- [56] K. D. Budd, S. K. Dey and D. A. Payne, "Sol-Gel Processing of PbTiO₃, PZT, and PLZT Thin Film" , Br. Ceram. Proc., 36, pp. 107-21 ,1985 .
- [57] L. E. Cross, edited by Kirk Othmer, "Encyclopedia of Chemical Technology "

- , 10, 3rd Edition, John Wiley and Sons Inc., 1986.
- [58] J. D. Markenzie, “Glasses from Melts and Glasses from Gels” ,
J. Non-Crystalline Solids , 48 , pp. 1-10 ,1982.
- [59] K. D. Budd, S. K. Dey and D. A. Payne, “The Effect of Hydrolysis
Conditions on the Characteristics of PbTiO₃ Gel and Thin Films” ,
Mat. Res. Soc. Symp. Proc., 73, pp. 711-716, 1986.
- [60] B. A. Tuttle and R. W. Schwartz, “Solution Deposition of Ferroelectric
Thin Film” , MRS Bulletin, pp. 49-54, 1996.
- [61] G. Carmen, D. Maria, U. Kenji, S. Michael, “Piezoelectric
Materials : Advances in Science, Technology and Application” , NATO
Scientific Affairs Division, USA, 1999.
- [62] G. W. Taylor, J. J. Gagnepum, T. R. Meeker, T. Nakamura , L. A. Shuvalor, “
Piezoelectricity” , Gordon and Breech Science Publishers, USA, 1985.
- [63] Z. R. Carol, V. H. Basavaraj, N. Robert, “Piezoelectricity” , the American
Institute of Physics, New Work, 1992.
- [64] S. Zhang, G. Wright, Y. Yang, “Materials and techniques for electrochemical
biosensor design and construction” , Biosensors & Bioelectronics , 15, pp.
273-282, 2000.