

# 固体表面物理化学国家重点实验室 2007 年报论文目录

## B 类 国内核心刊物

1. Preparation and capacity fading mechanism of tin thin film as anode of lithium-ion battery  
Fan, XY; Zhuang, QC ; Xu, JM; Jiang, HH ; Huang, L ; Dong, QF; Sun, SG  
Acta Chim. Sin., 65 (2)(2007): 165-169
2. Study on Raman spectra of several conformations of thiophenol on gold  
Xu, XY; Li, SJ; Wu, DY; Gu, RA  
Acta Chim. Sin., 65 (12)(2007): 1095-1100
3. NMR studies on interactions between diperoxovanadate complexes and 1-methylimidazole  
Yu, XY; Li, GB; Zheng, BS; Huang, HW; Yi, PG ; Peng, HL; Chen, Z  
Acta Chim. Sin., 65 (16)(2007): 1548-1554
4. Photoelectrochemical study of influence factors on corrosion resistance of cupronickel B30 in simulated water  
Xu, QJ; Wan, ZY; Yin, RH; Xu QJ; Wan, ZY; Yin, RH; Zhu, LJ; Cao, WM; Zhou, GD; Lin, CJ  
Acta Chim. Sin., 65 (18)(2007): 1981-1986
5. Kinetics of vesicle formation and breakdown  
Zhou, WT; Xu, XM; Lan, Q ; Han, GB  
Acta Chim. Sin., 65 (20)(2007): 2279-2284
6. NMR studies on interactions between diperoxovanadate and N-substituted picolinamide  
Li, GB; Yu, XY; Zheng, BS; Yi, PG; Tang, ZQ ; Chen, Z  
Acta Chim. Sin., 65 (21)(2007): 2357-2362
7. Fabrication of highly ordered titanium dioxide nanotube array and investigation of its photocatalytic activity  
Zhuang, HF ; Lai, YK; Li, J ; Sun, L ; Lin, CJ  
Acta Chim. Sin., 65 (21)(2007): 2363-2369
8. Charge transport performance of Nafion-based redox polymer in atmosphere  
Chen, HX; Zhou, JZ; Xi, YY; Lan, BB; Feng, ZF ; Yao, GH ; Lin, ZH  
Acta Phys.-Chim. Sin., 23 (3)(2007): 404-408
9. Microwave radiation-assisted synthesis of Pt-CNTs  
Zhong, QL; Zhang, B; Ding, YM; Rao, GS; Wang, GF; Jiang, YX; Ren, B; Tian, ZQ  
Acta Phys.-Chim. Sin., 23 (3)(2007): 429-432

10. Preparation of Cu/Sr<sub>3</sub>Ti<sub>2</sub>O<sub>7</sub> and its photocatalytic activity of water-splitting for hydrogen evolution  
Fang, SM ; Ou, Y; Lin, JD; Liao, DW  
Acta Phys.-Chim. Sin., 23 (4)(2007): 601-604
11. Role of Te on selective oxidation of propane to acrolein over MoBiTeO/SiO<sub>2</sub> catalysts  
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Acta Phys.-Chim. Sin., 23 (6)(2007): 851-855
12. Three-dimensional porous Cu<sub>6</sub>Sn<sub>5</sub> alloy anodes for lithium-ion batteries  
Fan, XY; Zhuang, QC; Jiang, HH ; Huang, L ; Dong, QF; Sun, SG  
Acta Phys.-Chim. Sin., 23 (7)(2007): 973-977
13. Hydrophilicity of TiO<sub>2</sub> thin films codoped with iron and nitrogen  
Huang, DS; Zeng, RJ ; Chen, CF; Li, YH  
Acta Phys.-Chim. Sin., 23 (7)(2007): 1037-1041
14. Electrochemical corrosion behavior of copper clad laminate in NaCl solution  
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Acta Phys.-Chim. Sin., 23 (9)(2007): 1342-1346
15. Effect of interface electric field on DNA hybridization studied by electrochemical quartz crystal microbalance  
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Acta Phys.-Chim. Sin., 23 (9)(2007): 1421-1424
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Acta Phys.-Chim. Sin., 23 (9)(2007): 1432-1436
17. Electrical transport properties of individual TiO<sub>2</sub> nanowire in one dimension  
Sun, L ; Zuo, J; Lai, YK; Nie, CG; Lin, CJ  
Acta Phys.-Chim. Sin., 23 (10)(2007): 1603-1606
18. NMR studies on interactions between diperoxovanadate and imidazole-like ligands  
Yu, XY; Li, GB; Zheng, BS ; Huang, HW ; Yi, PG; Zeng, YL ; Chen Z  
Acta Phys.-Chim. Sin., 23 (11)(2007): 1765-1770
19. Structure and performance of lithium battery anode material Li<sub>4</sub>Ti<sub>5</sub>O<sub>12</sub>  
He, H ; Cheng, X; Zhang, Y  
Chinese Journal of Materials Research., 21(1)(2007):82-86
20. Phenol solvothermal synthesis of JBW-type zeolites  
Wei, B; Wang, Y; Xin, MH; Qiu, SL  
Chem. Res. Chin. Univ.-Chin., 23 (5)(2007): 511-513

21. A preliminary study on fabrication and electronic measurements of a Ag<sub>2</sub>S nano- electrochemical switch  
Kong, DS; Tian, JH ; Liu, B; Liu, HL; Chen, ZB; Mao, BW; Tian, ZQ  
Chem. J. Chin. Univ.-Chin., 28 (1)(2007): 149-152
22. Structure and performance of LiFePO<sub>4</sub>/CaB<sub>6</sub> composites  
Liu, SK; Dong, QF; Zheng, MS; Jin, MG; Zhan, YD; Lin, ZG ; Sun, SG  
Chem. J. Chin. Univ.-Chin., 28 (2)(2007): 302-306
23. Fabrication of Au tips for tip-enhanced Raman spectroscopy  
Wang, X; Cui, Y; Ren, B  
Chem. J. Chin. Univ.-Chin., 28 (3)(2007): 522-525
24. Size effect of conductivities of polyaniline nanowires  
Qi, L; Zhou, JZ; Weng, SH; Cai, CD ; Yao, GH ; Lin, ZH  
Chem. J. Chin. Univ.-Chin., 28 (3)(2007): 562-564
25. Preparation and characterization of Au-core-shell nanoparticles and their surface-enhanced Raman spectroscopy  
Bao, F; Cui, Y; Yao, JL; Ren, B; Gu, RA  
Chem. J. Chin. Univ.-Chin., 28 (4)(2007): 627-629
26. Theoretical studies on third-order nonlinear optical property of (ZnS)<sub>6-12</sub> clusters  
Zhang, X ; Huang, TT; Tan, K; Lin, MH; Zhang, QE  
Chem. J. Chin. Univ.-Chin., 28 (6)(2007): 1126-1130
27. Investigation of Electro-oxidation activity of Pt-CNTs/GC electrodes  
Zhong QL, Zhang B, Rao GS, et al. Zhong QL , Zhang B, Rao GS , Ding YM , Wang GF , Jiang YX , Ren B , Tian ZQ  
Chem. J. Chin. Univ.-Chin., 28 (6)(2007): 1135-1138
28. Composition, structure and function from endopeptidase of Aplysia egg analyzed with matrix assisted laser desorption ionization-time of flight-mass spectrometry  
Huang, HQ; Lu, YJ ; Lin, QM; Zhuo, HQ ; Huang, HY  
Chin. J. Anal. Chem., 35 (8)(2007): 1105-1110
29. Reconstruction of surface structure of MoBiTeO/SiO<sub>2</sub> catalyst during propane selective oxidation  
He, YM; Yi, XD; Zhang, XB; Ying, F ; Huang, CJ; Weng, WZ ; Wan, HL  
Chin. J. Catal., 28 (2)(2007): 112-116
30. Pt catalyst supported on multiwalled carbon nanotubes for hydrogenation-dearomatization of toluene  
Zhou, M; Lin, GD; Zhang, HB  
Chin. J. Catal., 28 (3)(2007): 210-216

31. Gas-phase hydroxylation of chlorobenzene over Cu-HZSM-5 and catalyst deactivation  
Chen, LJ; Lin, HQ; Yan, B; Yang, LF  
Chin. J. Catal., 28 (5)(2007): 407-412
32. In situ infrared Spectroscopy of active oxygen species for oxidative coupling of methane over BaF<sub>2</sub>/La<sub>2</sub>O<sub>3</sub> catalyst  
Wang, LH; Yi, XD; Weng, WZ; Wan, HL  
Chin. J. Catal., 28 (9)(2007): 789-793
33. A new method for high-resolution NMR spectra in inhomogeneous fields with efficient solvent suppression  
Lin, MJ; Chen, X; Chen, ZW; Chen, Z  
Chin. J. Chem., 25 (6)(2007): 751-755
34. Electrooxidation mechanism of methanol at Pt-Ru catalyst modified GC electrode in electrolytes with different pH using electrochemical and SERS techniques  
Ding, YM ; Liu, YL; Rao, GS; Wang, GF ; Zhong, QL ; Ren, B ; Tian, ZQ  
Chin. J. Chem., 25 (11)(2007): 1617-1621
35. Preparation and photocatalytic activity of TiO<sub>2</sub> powder codoped with iron and nitrogen  
Huan, DS ; Chen, CF ; Li, YH; Zeng, RJ  
Chin. J. Inorg. Chem., 23 (4)(2007): 738-742
36. Progress on fabrication, modification and applications of titania nanotube Arrays  
Sun, L; Li, J; Zhuang, HF; Lai, YK; Wang, CL; Lin, CJ  
Chin. J. Inorg. Chem., 23 (11)(2007): 1841-1850
37. Solvent suppression in intermolecular multiple-quantum coherence nuclear magnetic resonance spectra with only z-axis gradients  
Feng, H; Zhang, SC; Cai, SH; Chen, Z ; Feng, J  
Chin. Phys. Lett., 24 (4)(2007): 913-916
38. An electrochemical impedance spectroscopic study of the electronic and ionic transport properties of LiCoO<sub>2</sub> cathode  
Zhuang, QC; Xu, JM; Fan, XY; Dong, QF ; Jiang, YX; Huang, L ; Sun, SG  
Chin. Sci. Bull., 52 (9)(2007): 1187-1195
39. Effect of the etching treatments on titanium surface morphology  
Zhang, YF ; Wang, Hi; Du, RG; Lin, CJ  
Journal of Functional Materials., 38(6)(2007): 983-985
40. Studies of surface processes of electrocatalytic reduction of CO<sub>2</sub> on Pt(210), Pt(310) and Pt(510)  
Fan, CJ; Fan, YJ; Zhen, CH; Zheng, QW; Sun, SG  
Sci. China Ser. B-Chem., 50 (5)(2007): 593-598

41. LiCoO<sub>2</sub> electrode/electrolyte interface of Li-ion batteries investigated by electrochemical impedance spectroscopy  
Zhuang, QC; Xu, JM; Fan, XY; Wei, GZ; Dong, QF; Jiang, YX; Huang, L; Sun, SG  
Sci. China Ser. B-Chem., 50 (6)(2007): 776-783
42. Ion-conducting mechanism of composite polymer electrolyte(2007): An emission FTIR spectroscopy study  
Xu, JM ; Jiang, YX ; Zhuang, QC; Zeng, DM ; Sun, SG  
Spectrosc. Spectr. Anal., 27 (2)(2007): 247-249
43. 具有残留耦合的分子间和分子内多量子相干及其应用  
朱小钦; 陈忠;  
波谱学杂志, 24(4)(2007):401-419
44. 锂离子电池 Sn-SBA15 负极材料的复合电镀制备及其性能  
樊小勇; 许金梅; 庄全超; 江宏宏; 黄令; 姜艳霞; 董全峰; 孙世刚  
电化学, 13(1)(2007):25-29
45. 2, 2' -联吡啶和亚铁氰化钾对乙醛酸化学镀铜的影响  
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电化学, 13(1)(2007): 67-71
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电化学, 13(1)(2007):106-109
48. 电化学共沉积 HA/胶原复合涂层及其生物性能初探徐艳丽  
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50. 离子液体两相不对称氢甲酰化催化反应的研究  
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分子催化, 21(1)(2007):13-18
51. 番石榴叶提取物的鉴定及其抗菌作用  
王芳; 王力; 董乐; 蔡慧农;  
分子科学学报, 23(5)(2007): 365-367

52. 蛋白质辅助基质提高激光解吸/电离多肽离子化率和绝对强度的研究  
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高等学校化学学报, 28(5)(2007):889-893
53. 用 MALDI-TOF 质谱和电子光谱研究纳米胰岛素核-铁蛋白的构建技术和特性  
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高等学校化学学报, 28(11)(2007):2073-2077
54. D-葡萄糖酸钠对模拟混凝土孔隙液中钢筋的缓蚀作用  
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功能材料, 38(3)(2007):509-511
55. 纳米 TiO<sub>2</sub> 薄膜的低温烧结制备及表征  
李玉花; 肖清泉; 陈朝凤; 黄东升; 程一兵; 曾人杰  
功能材料, 38(7)(2007):1206-1209
56. 水热法制备纳米镍锌铁氧体粉体及其磁性能  
曹慧群; 魏波; 刘剑洪; 李耀刚; 朱美芳; 王野  
硅酸盐学报, 35(6)(2007):713-716
57. 银纳米粒子的形貌可控研究  
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化学研究与应用, 19(2)(2007):169-171
58. TiO<sub>2</sub> 纳米管阵列光催化降解苯酚  
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精细化工, 24(4)(2007):317-320
59. LiCoO<sub>2</sub> 正极材料电子和离子传输特性的电化学阻抗谱研究  
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石油化工, 36(5)(2007):437-440

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实用口腔医学杂志, 23(5)(2007):632-636
64. 手性双二茂铁基配体的合成、表征及固体 CD 光谱  
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厦门大学学报: (自然科学版) 46(4)(2007):445-450
67. 手性含氮四齿配体催化苯丙酮的不对称氢转移氢化  
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70. 质谱和动力学技术研究胰岛素-多糖纳米粒稳定性和释放胰岛素速率  
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71. 碳纳米管促进的 Co-Cu 氧化物基低碳醇合成催化剂的制备研究  
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72. LiCoO<sub>2</sub> 电极 / 电解液界面特性的电化学阻抗谱研究  
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