

CURRICULUM VITAE

Shutao Wang Ph.D.

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PROFESSIONAL EXPERIENCE

Post-doctoral scholar, Pharmacology, 7/2007 ~ now

University of California at Los Angeles

Supervisor: Hsian-Rong Tseng, Ph.D.

EDUCATION

PhD Candidate: Physical Chemistry, 9/2003 ~ 6/2007

Institute of Chemistry, Chinese Academy of Sciences, Beijing, China.

Advisor: Prof. Lei Jiang

Master of Science: Inorganic Chemistry, 9/2000 ~ 6/2001

Department of Chemistry, Northeast Normal University, China

Advisor: Prof. Enbo Wang

Bachelor of Science: General Chemistry, 9/1996 ~ 6/2000

Department of Chemistry, Northeast Normal University, China

Advisor: Prof. Enbo Wang

SKILLS

● SEM, TEM, AFM, FTIR, UV-Vis spectroscopy, Fluorescent spectroscopy, Circle dichromatic spectroscopy, X-ray powder diffraction, X-ray single crystal diffraction *etc.*

● Hydrothermal synthesis, Electrochemical deposition and analysis, self-assembled monolayer, laser lithography, photolithography, PDMS device, layer-by-layer, biomineralization, and template methods, treatment of biomolecule, surface modification

AWARDS

- 2007 "President Fellowship" awarded by Chinese Academy of Sciences.
- 2006 "Director Fellowship" awarded by Institute of Chemistry, Chinese Academy of Sciences.

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- 2006 “Zhongke Nano Fellowship” awarded by Institute of Chemistry, Chinese Academy of Sciences.
- 2006 “Distinguished Student” awarded by Chinese Academy of Sciences.
- 2006 “Youth Distinguished Academic Performance” awarded by Institute of Chemistry, Chinese Academy of Sciences.
- 2005 “Director Fellowship” awarded by Institute of Chemistry, Chinese Academy of Sciences.
- 2005 “Jie Shi Jie Fellowship” awarded by Institute of Chemistry, Chinese Academy of Sciences.
- 2005 “Youth Excellent Academic Performance” awarded by Institute of Chemistry, Chinese Academy of Sciences.
- 2002 “Excellent Student Leader” awarded by Northeast Normal University.
- 2000 “Excellent Student Leader” awarded by Northeast Normal University.
- 1996 ~ 2000 “Prize Scholarship” awarded by Northeast Normal University for four times.

PUBLICATIONS

30. **Wang ST**, Jiang L, The definition of superhydrophobic states, *Adv. Mater.* **2007**, in press.
29. **Wang ST**, Liu HJ, Liu DS, Ma XY, Fang XH, and Jiang L, Enthalpy-driven 3-state switchable superhydrophilic/superhydrophobic surface, *Angew. Chem. In. Ed.* **119**, 3989-3991, **2007**.
28. Mao YD, Liu DS, **Wang ST**, Luo SN, Wang WX, Yang YL, Ouyang Q, Jiang L, Alternating-electric-field-enhanced reversible switching of DNA nanocontainers with pH *Nuclei Acid Research*, doi:10.1093/nar/gkl1161, **2007**.
27. **Wang ST**, Song YL, Jiang L, Photoresponsive surfaces with controllable wettability *J. Photochem & Photobio C: Photochem. Review*, **8**, 18-29, **2007**.
26. **Wang ST**, Song YL, Jiang L, Micro- and nanoscale hierarchical structured mesh films with superhydrophobic and superoleophilic properties induced by long chain fatty acids *Nanotechnology*, **18** 015103 (5pp), **2007**
25. **Wang ST**, Liu H, Jiang L, Recent process on bio-inspired surface with special wettability *Annual Review of Nano Research*, Vol 1, 573-628, **2006** (*The invited paper*)
24. **Wang ST**, Feng X, Yao JN, Jiang L, Controlling wettability and chromism in a dual-responsive tungsten oxide film *Angew. Chem. In. Ed.* **45**, 1264-1267, **2006**
23. **Wang ST**, Feng L, Jiang L, One-step solution-immersing process towards bionic superhydrophobic surfaces *Adv. Mater.* **18**, 767-770, **2006**
22. **Wang ST**, Zhu Y, Xia F, Xi JM, Feng L, Jiang L, The preparation of a superhydrophilic carbon film from a superhydrophobic lotus leaf *Carbon* **44**, 1845-1849, **2006**

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21. Xia F, Feng L, **Wang ST**, Sun TL, Song WL, Jiang WH, Jiang L, Dual-responsive surfaces that switch between superhydrophilicity and superhydrophobicity
Adv. Mater. 18, 432-434, **2006**
20. Li SS, Xu LP, Wan LJ, **Wang ST**, Jiang L, Time-sepended organization and wettability of decanethiol self-Assembled monolayer on Au(111) investigated with STM
J. Phys. Chem. B, 110(4), 1794-1799, **2006**
19. Huang ZB, Zhu Y, **Wang ST**, Yin G, Controlled growth of aligned arrays of Cu-Ferrite nanorods
Cryst. Growth Des. 6(8), 1931-1935, **2006**
18. **Wang ST**, Feng L, Liu H, Sun TL, Zhang X, Jiang L, Zhu DB, Manipulation of surface wettability between superhydrophobicity and superhydrophilicity on copper films
Chemphyschem 6 (8): 1475-1478, **2005**
17. **Wang ST**, Hou Y, Wang EB, Li YG, Hu CW, Hydrothermal synthesis and crystal structure of polyoxovanadate linked by transition metal complex fragments [Co(o-phen)]V₂O₆·H₂O
Chem. J. Chin. Univ-Chin. 25 (1): 27-29, **2004**
16. Hou Y, **Wang ST**, Shen EH, Xiao DR, Wang EB, Li YG, Xu L, Hu CW, A novel one-dimensional arsenic vanadate decorated with a transition metal complex: [Cu(2,2'-bpy)](VO₂)(AsO₄) (2,2'-bpy=2,2'-bipyridine)
J. Mol. Struct. 689 (1-2): 81-88, **2004**
15. Xiao DR, Xu Y, Hou Y, Wang EB, **Wang ST**, Li YG, Xu L, Hu CW, Synthesis and structure of an unprecedented layered vanadate complex containing double-helical chains: [{Co^{III}(phen)₂}₂V₈O₂₃]
Eur. J. Inorg. Chem. (7): 1385-1388, **2004**
14. **Wang ST**, Hou Y, Wang EB, Li YG, Xu L, Peng J, Liu SX, Hu CW, A novel organic-inorganic hybrid material with fluorescent emission: [Cd(PT)(H₂O)]_n (PT = phthalate)
New J. Chem. 27 (7): 1144-1147, **2003**
13. **Wang ST**, Wang EB, Hou Y, Li YG, Wang L, Yuan M, Hu CW, A novel chain-like molybdenum phosphate: hydrothermal synthesis, crystal structure and characterization of [NH₃(CH₂CH₂)₂NH₃]₃[NH₃(CH₂CH₂)₂NH₂]-Na-5[Mo₆O₁₂(OH)₃(PO₄)(HPO₄)₃]₂ center dot 4H₂O
Trans. Metal. Chem. 28 (6): 616-620, **2003**
12. **Wang ST**, Wang EB, Hou Y, Li YG, Yuan M, Hu NH, Hydrothermal synthesis, structure, and characterization of two one-dimensional chainlike hybrid complexes [(CuX)₂(o-phen)]_∞ (X = Br, Cl; o-phen = o-phenant)
Inorg. Chim. Acta 349: 123-127, **2003**
11. Xiao DR, **Wang ST**, Wang EB, Hou Y, Li YG, Hu CW, Xu L, Hydrothermal synthesis and crystal structure of a three-dimensional vanadium tellurite V₄Te₄O₁₈
J. Solid State Chem. 176 (1): 159-164, **2003**
10. Luan GY, Li YG, **Wang ST**, Wang EB, Han ZB, Hu CW, Hu NH, Jia HQ, A new alpha-Keggin type polyoxometalate coordinated to four silver complex moieties: {PW₉V₃O₄₀[Ag(2,2'-bipy)]₂[Ag-2(2,2'-bipy)]₃]₂}
Dalton Trans. (2): 233-235, **2003**

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9. Xiao DR, Li YG, Wang EB, **Wang ST**, Hou Y, De GH, Hu CW, Two novel vanadium tellurites covalently bonded with metal-organic complex moieties: $M(\text{phen})\text{V}_2\text{TeO}_8$ ($M = \text{Cu}, \text{Ni}$)

Inorg. Chem. 42 (23): 7652-7657, **2003**

8. Hou Y, Shen EH, **Wang ST**, Wang EB, Xiao DR, Li YG, Xu L, Hu CW, Hydrothermal synthesis and crystal structure of a metal-organic coordination polymer with double-helical structure: $[\text{Fe}(\text{phen})(\text{ipt})]_n$ (ipt = isophthalate, phen=1,10-phenanthroline)

Inorg. Chem. Commun. 6 (10): 1347-1349, **2003**

7. Xiao DR, Lu Y, Wang EB, Li YG, **Wang ST**, Hou Y, De GH, A layered vanadium arsenate network decorated with the directly coordinated organonitrogen ligands: $[\text{V}_4\text{O}_7(\text{HAsO}_4)_2(\text{o-phen})_2]$ (o-phen = o-phenanthroline)

J. Solid State Chem. 175 (2): 146-151, **2003**

6. Chen YM, Wang EB, Lin BZ, **Wang ST**, The first polyoxoalkoxovanadium germanate anion with a novel cage-like structure: solvothermal synthesis and characterization

Dalton Trans. (4): 519-520, **2003**

5. Yuan M, Wang EB, Lu Y, **Wang ST**, Li YG, Wang L, Hu CW, A novel chain-like binuclear vanadium(V) coordination polymer containing mixed ligands: hydrothermal synthesis and crystal structure of $[\{\text{VO}_2(2,2'\text{-bipy})\}_2(\text{tp})]_n$ (tp=terephthalate)

Inorg. Chim. Acta 344: 257-261, **2003**

4. **Wang ST**, Li YG, Wang EB, Luan GY, Hu CW, Hu NH, Jia HQ, An unusual organic-inorganic chain-like hybrid complex $[(\text{CuCl})_2(\text{o-phen})]_n$ (o-phen=o-phenanthroline)

J. Solid State Chem. 167 (2): 402-406, **2002**

3. **Wang ST**, Wang EB, Li YG, Wang L, Hu CW, Hu NH, Jia HQ, Hydrothermal synthesis and crystal structure of a layered inner-tunnel compound $[(\text{CuI})_2(\text{o-phen})_2]$

Chem J. Chin. Univ-Chin. 23 (7): 1241-1242, **2002**

2. Li YG, Wang EB, **Wang ST**, Lu Y, Hu CW, Hu NH, Jia HQ, Synthesis, characterization and crystal structures of dibenzo-18-crown-6 sodium isopolytungstates

J. Mol. Struct. 607 (2-3): 133-141, **2002**

1. Li YG, Wang EB, **Wang ST**, Lu Y, Hu CW, Hu NH, Jia HQ, An organic-inorganic vanadium oxide with one-dimensional ladder-type structure: hydrothermal synthesis, structure and characterization of $[\text{V}_4\text{O}_{10}(\text{o-phen})_2]$

J. Mol. Struct. 606 (1-3): 175-180, **2002**

PRESENTATIONS

7. Zhou HQ, Wen GY, **Wang ST**, Liu H, Jiang L, Zhang DQ, Photoresponsive surface wettability of a spiropyran-based self-assembly monolayer, *Chinese 7th Symposium on Organic Solid Electronic Process & Organic Photoelectronic Functional Materials* (Suzhou, Jiangsu, China), Oct. 21-24, 2006.

6. Xi JM, Zhang YN, **Wang ST**, Feng L*, Jiang L, Superhydrophobic biomimic polymer films in a

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wide range of pH values, *Chinese 7st Symposium on Organic Solid Electronic Process & Organic Photoelectronic Functional Materials* (Suzhou, Jiangsu, China), Oct. 21-24, 2006.

5. **Wang ST**, Xia F, Jiang L, "One-step solution-immersing process towards bionic superhydrophobic surfaces", *BASF Symposium on Bioinspired Materials for the Chemical Industry* (ISIS, Strasbourg, France) Aug, 7-9, 2006.

4. **Wang ST**, Jiang L, "Dual-responsive tungsten oxide film: wettability and chromism", *The 12th China-Japan Bilateral Symposium on Intelligent Electrophotonic Materials & Molecular Electronics* (Suzhou, Jiangsu, China), 2005. (Oral).

3. **Wang ST**, Feng L, Zhang X, Jiang L, Zhu DB, "Manipulation of surface wettability between superhydrophobicity and superhydrophilicity on copper films", *The 12th China-Japan Bilateral Symposium on Intelligent Electrophotonic Materials & Molecular Electronics* (Suzhou, Jiangsu, China), 2005, p. 47.

2. Xia F, Feng L, **Wang ST**, Sun TL, Song WL, Jiang WH, Jiang L, "Dual-responsive-switch surfaces between superhydrophobicity and superhydrophilicity", *The 12th China-Japan Bilateral Symposium on Intelligent Electrophotonic Materials & Molecular Electronics* (China), 2005, p. 160.

1. **Wang ST**, Wang EB, Li YG, Luan GY, Hu CW, Hydrothermal assembly and structural characterization of one novel 3-D inorganic/organic hydrid supermolecular constructed from 1-D coordination polymers through hydrogen bonds, *The 7th international solid chemistry symposium* (Changchun, Jilin, China), 2002.