

## CURRICULUM VITAE

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### ACADEMIC QUALIFICATIONS:

- 10/1993~ 09/1996: Ph.D., Biological Inorganic Chemistry, Birkbeck College, the University of London, Great Britain (Supervisor: Prof. *Peter J Sadler*, FRS)
- 09/1987~ 07/1990: M.Sc., NMR Spectroscopy, Wuhan Institute of Physics, the Chinese Academy of Sciences, P. R. China

### PROFESSIONAL EXPERIENCE:

- 07/2007- Present: *Professor*, Department of Chemistry, University of Hong Kong
- 02/2004- 2007/07: *Associate Professor*, Department of Chemistry, University of Hong Kong
- 12/1998- 02/2004: *Assistant Professor*, Department of Chemistry, University of Hong Kong
- 10/1996-12/1998: *GlaxoWellcome Research Fellow*, Department of Chemistry, the University of Edinburgh, Great Britain
- 10/1993~ 09/1996: *Ph.D. Study*, Bioinorganic Chemistry, the University of London (Birkbeck College), Great Britain
- 08/1990~ 09/1993: *Research Associate and Lecturer*, Coordination Chemistry Institute, Nanjing University, Nanjing, P.R. China

### RESEARCH INTERESTS

- Biological Inorganic Chemistry (Main Group Elements) and (Inorganic) Structural Biology
- Structure-function of Metalloproteins
- Metallomics and Metalloproteomics
- Cellular Transport and Storage of Transition Metal Ions (Fe, Ni and Zn) in Humans and Microorganisms

### AWARDS AND HONORS

- Outstanding Young Researcher Award, the University of Hong Kong 2004-2005
- Outstanding Young Scholar Award (Type 'B'), National Science Foundation of China 2005
- Guest Professorship of Sun Yat-Sen University, Huazhong University of Science and Technology (HUST), and Shenzhen University (School of Life Science)

### SERVICES

- Secretary, Steering Committee of Asian Biological Inorganic Chemistry (2006-)
- Panel Member of National Science Foundation of China (NSFC, Inorganic Chemistry), 2005 and 2008
- Member of International Advisory Committee, *Asian Biological Inorganic Chemistry Conference*: AsBIC-II, III and IV, December 5-10, 2004, Goa, India; October 30- November 3, 2006, Nanjing, China and AsBIC-IV, 2008 (Jegu, Korea)
- Member of International Advisory Board, *International Symposium on Metallomics 2007 (ISM 2007)*, November 28-December 1, 2007, Nagoya, Japan (<http://www.ism2007.org/>)
- Member of International Scientific Committee, the *4<sup>th</sup> International Conference on Metals and Genetics (ICMG-4)*, July 20-24, 2008, Paris, France (<http://www.fourthmetalsandgenetics.org/>)

### EDITORSHIP

- Editorial Board of *Metallomics* (Royal Society of Chemistry), *BMC Biochemistry* and *The Chinese Journal of Magnetic Resonance*
- Editorial Advisory Board of *The Journal of Biological Inorganic Chemistry* (Springer, 2007-2009) and *The Open Medicinal Chemistry Journal* (Bentham Science Publisher)

### SELECTIVE PUBLICATIONS (>90 publications)

1. Cun SJ, Li HY, Ge RG, Lin MCM, **Sun HZ** (2008) "A histidine- and cysteine-rich metal binding domain at the C-terminus of heat-shock protein A from *Helicobacter pylori*: implication for nickel homeostasis and bismuth susceptibility" *Journal of Biological Chemistry*, **283**, 15142-15151.

2. Wang H, Li HY, Cai B, Huang ZX, **Sun HZ** (2008) "The effect of nitric oxide (NO) on metal release from human metallothionein-3 (MT-3): gradual unfolding of the protein" *Journal of Biological Inorganic Chemistry*, **13**, 411-419.
3. Yang N, Tanner JA, Zheng BJ, Watt RM, He ML, Lu LY, Jiang J-Q, Shum K-T, Lin Y-P, Wong KL, Lin MCM, Kung HF, **Sun HZ**, Huang JD (2007) "Bismuth complexes inhibit the SARS coronavirus" *Angewandte Chemie International Edition* **46**, 6464-6468.
4. Yang N, Tanner JA, Wang Z, Huang JD, Zheng BJ, Zhu N, **Sun HZ** (2007) "Inhibition of SARS coronavirus helicase by bismuth complexes" *Chemical Communications* 4413-4415
5. Li HY, Fung KL, Jin DY, Chung SSM, Ching YP, Ng IO, Sze KH, Ko BCB, **Sun HZ**\* (2007) "Solution structures, dynamics and lipid-binding of SAM domain from the deleted in liver cancer 2 (DLC2): a monomeric structure with membrane-binding properties" *Proteins* **67**, 1154-1166.
6. Ge RG, Sun XS, Gu Q, Watt RM, Wong BCY, Xia HHX, Huang JD, He QY, **Sun HZ**\* (2007) "A proteomic approach for the identification of bismuth-binding proteins in *Helicobacter pylori*" *Journal of Biological Inorganic Chemistry* **12**, 831-842.
7. Ge RG, Zhang Y, Sun XS, Watt RM, He Q-Y, Huang JD, Wilcox DE, **Sun HZ**\* (2006) "Thermodynamic and kinetic aspects of metal binding to the histidine-rich protein, Hpn" *Journal of the American Chemical Society* **128**, 11330-11331.
8. Ge RG, Watt RM, Sun X, Tanner JA, He QY, Huang JD, **Sun HZ**\* (2006) "Expression and characterization of a histidine-rich protein: potential for Ni<sup>2+</sup> storage in *Helicobacter pylori*" *Biochemical Journal* **393**, 285-293. (Highlighted in Faculty of 1000Biology: //www.f1000biology.com/article/id/1033680)
9. Chen R, So MH, Yang J, Deng F, Che C-M, **Sun HZ**\* (2006) "Fabrication of bismuth subcarbonate nanotube arrays from bismuth citrate" *Chemical Communications* 2265-2267.
10. Wang H, Zheng Q, Cai B, Li HY, Sze KH, Huang ZX, Wu HM, **Sun HZ**\* (2006) "Structure and dynamics of human metallothionein-3 (MT-3)" *FEBS Letters* **580**, 795-800.
11. Li F, Li HY, Kwan MF, Hu LH, Chen GH, He QY, **Sun HZ**\* (2005) "Structure, assembly and topology of G185R mutant of the transmembrane domain4 of divalent metal transporter" *Journal of the American Chemical Society* **127**, 1414-1423.
12. Li HY, Li F, Qian ZM, **Sun HZ**\* (2004) "Three dimensional structures and topology of the transmembrane domain4 of divalent metal transporter in membrane-mimetic environments". *European Journal of Biochemistry* **271**, 1938-1951.
13. Li W, Jin L, Zhu NY, Deng F, **Sun HZ**\* (2003) "Structure of colloidal bismuth subcitrate in dilute HCl: assembly of dinuclear [Bi(cit)<sub>2</sub>Bi]<sup>2-</sup>" *Journal of the American Chemical Society* **125**, 12408-12409.
14. Yan SC, Wong LK, Chow LMC, **Sun HZ**\* (2003) "Rapid reduction of pentavalent antimony by trypanothione: potential relevance to antimonial activation" *Chemical Communications* 266-267.
15. Zhang L, Szeto KY, Wong WB, Sadler PJ, **Sun HZ**\* (2001) "Interactions of bismuth with human lactoferrin and recognition of Bi<sup>III</sup>-lactoferrin by intestinal cells" *Biochemistry* **44**, 13281-13287.
16. Yan SC, Ding K, Zhang L, **Sun HZ**\* (2000) "Complexation of antimony(III) to trypanothione". *Angewandte Chemie International Edition* **39**, 4260-4262.

Invited Reviews and Book Chapters:

1. Sun XS, Tsang CN and **Sun HZ** (2009) "Identification of binding proteins of metallodrugs by (metallo)proteomics" *Metallomics* **1**, 25-31. (Featured on the cover of the January issue, 2009)
2. Ge RG, **Sun HZ** (2007) "Bioinorganic chemistry of bismuth and antimony: target sites for metallodrugs" *Accounts of Chemical Research* **40**, 267-274.
3. Yang N, **Sun HZ**\* (2007) "Biocoordination chemistry of bismuth: recent advances" *Coordination Chemistry Reviews* **251**, 2354-2366.
4. Yan SC, Jin L, **Sun HZ**\* (2005) "<sup>51</sup>Sb- antimony in medicine" in 'Metallotherapeutic Drugs and Metal-Based Diagnostic Agents: The Use of Metals in Medicine' (eds. Tiekink E.R.T., Gielen M.), John Wiley, pp. 441-461.
5. **Sun HZ**\*, Zhang L Szeto KY (2004) "Bismuth in medicine" *Metal Ions in Biological System* **41**, 333-378.

6. Li F, Sun HZ\* (2004) "Dynamic and kinetic aspects of metallodrugs by NMR" in Fluxional Organometallic and Coordination Chemistry (Edited by Gielen M., Willem R., Wrackmeyer B.), John-Wiley, pp. 163-217.
7. Sun HZ\* (2002) "Metallodrugs" in Encyclopedia of Nuclear Magnetic Resonance: Advances in NMR (Ed: Grant DM & Harris RK, John Wiley & Sons Ltd.), pp. 413-427.

**INVITED LECTURERS in INTERNATIONAL/REGIONAL CONFERENCES (in the past 5 years):**

- 11<sup>th</sup> International Conference on Biological Inorganic Chemistry (ICBIC-11), Cairns, Australia, July, 2003
- Singapore International Chemical-3: Frontiers in Physical And Analytical Chemistry, Singapore, December, 2003
- 2<sup>nd</sup> Asian Biological Inorganic Chemistry Conference, Goa, India, December, 2004
- 11<sup>th</sup> Asian Chemical Congress, Seoul, Korea, August, 2005
- 37<sup>th</sup> International Conference on Coordination Chemistry (ICCC-37, Keynote Speaker), August 13-18, 2006, South Africa
- 7<sup>th</sup> International Conference on Environmental and Biological Aspects of Main-Group Organometallics (7<sup>th</sup> ICEBAMO), October, 2006, Crete, Greece
- 3<sup>rd</sup> Asian Biological Inorganic Chemistry Conference, October, 2006, Nanjing, P.R. China
- 37<sup>th</sup> International Coordination Chemistry Conference (ICCC-37), August, 2006, South Africa (Keynote Speaker)
- 1<sup>st</sup> Georgian Bay Biological Inorganic Chemistry Conference, Parry Sound, Ontario, Canada, May, 2007
- 13<sup>th</sup> International Conference on Biological Inorganic Chemistry (ICBIC-13), Vienna, Austria, July, 2007
- International Conference in Structural Biology, Hong Kong, November 19-22, 2007
- International Symposium on Metallomics 2007 (ISM2007), Nagoya, Japan, Nov. 28-Dec. 2, 2007
- The 4<sup>th</sup> International Conference on Metals and Genetics (ICMG-4), Paris, France, July 20-24. 2008
- The 9<sup>th</sup> European Biological Inorganic Chemistry Conference (EUROBIC-9), Wroclaw, Poland, September 2-6, 2008
- 4<sup>th</sup> Asian Biological Inorganic Chemistry Conference (AsBIC-IV, Keynote Speaker), Jeju, Korea, November 10-13, 2008
- European Winter Conference on Plasma Spectrochemistry, Graz, Austria, February 15-20, 2009 (Plenary Lecture)