

## Qingwei Zhang, Ph.D.

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### Education:

2004-2007 **Ph.D.** *Institute for Inorganic Chemistry, University of Göttingen, Germany*

*Advisor:* Prof. Dr. C. Schulzke *Major:* Inorganic Chemistry

*Thesis:* *New synthetic pathways to mono- and bis-dithiolene compounds of molybdenum and tungsten related to the active sites of the molybdopterin containing oxidases*

2001-2004 **M.S.** *School of Material Science and Engineering, Tianjin University, China*

*Advisors:* Prof. Dr. X. Yuan and Prof. Dr. K. Yao *Major:* Material Science

*Thesis:* *Preparation and Properties of Hybrid PGA/chitosan Braids*

1997-2001 **B.S.** *School of Material Science and Engineering, Tianjin University, China*

*Minor:* Education *Major:* Polymer Material Science and Engineering

*Senior Design:* *properties of PTC conductive polymeric composites of PE/CB systems*

### Research Experience:

2008-present **Post-doctoral research fellow** *College of Medicine, Drexel University, USA*

With Prof. Dr. P. I. Lelkes, Prof. Dr. J. Zhou and Prof. Dr. Yury Gogotsi engaged in research on development of co-continues micro-porous bioactive surgical fixation devices reinforced with surface functionalized nanodiamond.

2007-2008 **Research Fellow** *Chemistry Department, University of Michigan, USA*

With Prof. Dr. D. Coucouvanis engaged in research on synthesis of analogs for transition metal clusters and active sites in enzymatic catalysis, as well as high porous materials for H<sub>2</sub> storage.

### Research Interests:

- Polymer materials science and engineering for biomedical application
- Nanotechnology and nanocomposites
- Tissue engineering
- New materials development for sustainable energy
- Nanodiamond and their chemical surface functionalization in the applications of energy and biomedicine
- Environmental science and engineering

### Publications:

1. **Zhang, Q.;** Mochalin, V.N.; Neitzel, I.; Knoke, I.; Han, J.; Klug, C.A.; Zhou, J.; Lelkes, P.I.; Gogotsi, Y. Fluorescent PLLA-nanodiamond composites for bone tissue engineering. *Biomaterials*. 2011, 32: 87-94.
2. Döring, A.; Schulzke, C.; **Zhang, Q.** Synthesis, characterization and structural analysis of isostructural dinuclear molybdenum and tungsten oxo-bis- $\mu$ -sulfido-benzenedithiolene complexes. *Inorganica Chimica Acta*. 2010, 363:4100-4144.
3. Zhang, W.; Yao, D.; **Zhang, Q.;** Zhou, J.; Lelkes, P.I. Preparation of highly hydroxyapatite loaded and interconnected microporous poly(glycolic-co-lactic acid). *Biofabrication*. 2010, 2: 035006(10pp).
4. Lu, L.; **Zhang, Q.;** Wootton, D.; Lelkes, P.; Zhou, J. A Novel Sucrose Porogen-based Solid Freeform Fabrication System for Bone Scaffold Manufacturing. *Rapid Prototyping Journal*. 2010, 16(5): 367.
5. **Zhang, Q.;** Starke, K.; Schulzke, C.; Hofmeister, A.; Magull, J. Different Reaction Behaviour of Molybdenum And Tungsten-reactions Of The Dichloro Dioxo Dimethyl-bispyridine Complexes With Thiophenolate. *Inorganica Chimica Acta*. 2007, 360: 3400-3407.
6. **Zhang, Q.;** Schulzke, C.; Schmidt, H.-G.; Noltemeyer, M. Crystal Structure of a Dioxomolybdenum Complex with the Diethanolateamin Ligand [MoO<sub>2</sub>(O(CH<sub>2</sub>)<sub>2</sub>NH(CH<sub>2</sub>)<sub>2</sub>O)DMF]. *Zeitschrift für Kristallographie NC*. 2007, 22: 215-216.
7. Yuan, X.; **Zhang, Q.;** Wang, Y.; Yao, K. In vitro Degradation of PGA/Chitosan Hybrid Braids. *Transactions of Tianjin University*. 2007, 11 (4): 235-239.
8. Yuan, X.; **Zhang, Q.;** Wang, Y.; Yao, K. Mechanical Properties of Three-dimensional Braids of Chitosan and Polyglycolide. *Journal of Tianjin University*. 2006, 39 (z1): 337-340.
9. **Zhang, Q.;** Yuan, X.; Yao, K. Repair Biomaterials for Tissue Engineered Tendon. *Chinese journal of rehabilitation theory and practice*. 2003, 9 (3): 178-181.