Chengqian Huang

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EDUCATION

Southeast University (China) 2013.08-2017.06
B.S., Chemical Engineering **GPA: 3.76/4.0**

Oklahoma State University 2017.08-Present
Ph.D., Biosystems Engineering **GPA: 3.84/4.0**

TECHNICAL SKILLS

Fundamental cell/bacteria culture

Immunofluorescence assay

Familiar with the operations of the following instruments:

- FTIR; UV-spectrometer; UV-plate reader
- HPLC; GC/MS
- SEM; AFM; TEM
- Optical/fluorescence microscopy
- Contact angle goniometer; surface tension measurement

Experienced in polymer science and material characterization

LAB EXPERIENCE

- Design and characterization of polymer nanofilm fabricated with Initiated Chemical Vapor Deposition (iCVD)
- Surface modification for the implanted medical devices using iCVD nanofilms to reduce the adhesion of biomolecules such as bacteria and blood cells, thus avoiding device-related infection and thrombosis
- iCVD encapsulation of pharmaceutic drugs for controlled release from three-dimensional medical devices such as brain probes and cardiac stents to alleviate the foreign-body reactions resulting from the device implantation and prevent adverse effects caused by the drug burst release
- Modifying the metal meshes with specially designed iCVD nanofilm to achieve the superhydrophilicity for the treatment of bio-waste water.
- Routine safety checks and equipment maintenance for the lab
- Training for new lab workers and establishing standard operating procedure (SOP) for lab equipment

AWAITING PUBLICATIONS

- **Huang, C.,** Mao, Yu. Ultrathin Crosslinking Vapor Deposition Encapsulation of Dexamethasone for Controlled Release from Three-dimensional Devices (In preparation).
- **Huang, C.,** Mao, Yu. One-step and Substrate-independent Vapor Deposition of Superhydrophobic Coating with Hierarchical Roughness to Reduce Bio-adhesion (in preparation).
- **Huang, C.**, Zhu, M, Mao, Yu. Solventless Polymer-Grafted Mesh for Rapid and Efficient Oil-Water Separation (submitted to ACS Applied Polymer Materials).

ADDITIONAL INFORMATION

Languages: Fluent in English and Chinese.