

DAVID W. SCHMIDTKE, Ph.D
Assistant Professor of Chemical Engineering and Materials Science
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PROFESSIONAL PREPARATION

Education

University of Wisconsin at Madison	Chemical Engineering	B.S.	1990
University of Texas at Austin	Chemical Engineering	M.S.	1993
University of Texas at Austin	Chemical Engineering,	Ph.D.	1997

Postdoctoral Training

University of Texas at Austin	Biosensors	1997-1998
University of Pennsylvania	Cell Adhesion	1998-2000

Awards

1989	University of Wisconsin Biotechnology Center Summer Undergraduate Fellowship
1999	American Heart Association Pennsylvania/Delaware Affiliate Postdoctoral Fellow
2002	American Heart Association Scientist Development Grant

APPOINTMENTS

Assistant Professor. School of Chemical Engineering and Materials Science, University of Oklahoma, Norman, Oklahoma (August 2000 – date)

Postdoctoral Fellow. American Heart Association Postdoctoral Fellow. Institute for Medicine and Engineering, Department of Chemical Engineering, University of Pennsylvania, Philadelphia, PA (1998-2000): Cell adhesion under flow.

Postdoctoral Fellow. Department of Chemical Engineering, University of Texas at Austin, Austin, TX (1997-1998): Development and testing of implantable glucose sensors.

Engineering Consultant. TheraSense, Alameda, CA. (1997-1998): Consulted in the design, fabrication, testing and development of biosensors.

Graduate Research Assistant. Department of Chemical Engineering, University of Texas at Austin, Austin, TX (1990-1997): Development of amperometric biosensors.

Areas of Expertise: Dr. Schmidtke is active in the fields of chemical and biomedical engineering: e.g. biosensors (implantable glucose sensors and enzyme electrodes), electrochemistry (redox polymers and microelectrodes), cell-cell adhesion (platelet-neutrophil, platelet-platelet, and neutrophil-neutrophil interactions), and cell-protein surface adhesion (platelet-vWF, neutrophil-P-selectin, and platelet fibrinogen interactions).

PUBLICATIONS

5 Closely related publications

- B. R. Horrocks, **D. W. Schmidtke**, A. Heller, and A. J. Bard: "Scanning Electrochemical Microscopy. 24. Enzyme Ultramicroelectrodes for the Measurement of Hydrogen Peroxide at Surfaces", *Anal. Chem.* .65:3605-3614, 1993.
- E. Csöregi, C. P. Quinn, **D. W. Schmidtke**, S. Lindquist, M. V. Pishko, L. Ye, I. Katakis, J. A. Hubbell, and A. Heller: "Design, Characterization, and One-Point *in vivo* Calibration of a Subcutaneously Implanted Glucose Electrode", *Analytical Chemistry* 66:3131-3138, 1994.
- E. Csöregi, **D. W. Schmidtke** and A. Heller: "Design and Optimization of a Selective Subcutaneously

