

# Stanford

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## Channing Robertson

The Ruth G. and William K. Bowes Professor in the School of Engineering, Emeritus  
Chemical Engineering

### Bio

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#### ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, Chemical Engineering
- Member, Bio-X

### Teaching

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#### COURSES

##### 2023-24

- Busting Energy Myths: ENERGY 30N (Aut)

##### 2022-23

- Busting Energy Myths: ENERGY 30N (Win)

##### 2021-22

- Busting Energy Myths: ENERGY 30N (Aut)

##### 2020-21

- Busting Energy Myths: ENERGY 30N (Aut)

### Publications

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#### PUBLICATIONS

- **Interfacial Biocatalysis on Charged and Immobilized Substrates: The Roles of Enzyme and Substrate Surface Charge** *LANGMUIR*  
Feller, B. E., Kellis, J. T., Cascao-Pereira, L. G., Robertson, C. R., Frank, C. W.  
2011; 27 (1): 250-263
- **The Role of Electrostatic Interactions in Protease Surface Diffusion and the Consequence for Interfacial Biocatalysis** *LANGMUIR*  
Feller, B. E., Kellis, J. T., Cascao-Pereira, L. G., Robertson, C. R., Frank, C. W.  
2010; 26 (24): 18916-18925
- **Open Doorway to Truth: Legacy of the Minnesota Tobacco Trial** *MAYO CLINIC PROCEEDINGS*  
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2009; 84 (5): 446-456
- **Enzymatic Proteolysis of a Surface-Bound alpha-Helical Polypeptide** *LANGMUIR*  
Hardesty, J. O., Cascao-Pereira, L., Kellis, J. T., Robertson, C. R., Frank, C. W.  
2008; 24 (24): 13944-13956
- **Fluorescence Quantification for Surface Plasmon Excitation** *LANGMUIR*  
Feller, B. E., Kellis, J. T., Cascao-Pereira, L. G., Knoll, W., Robertson, C. R., Frank, C. W.  
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- **Waking a sleeping giant: The tobacco industry's response to the polonium-210 issue** *AMERICAN JOURNAL OF PUBLIC HEALTH*  
Muggli, M. E., Ebbert, J. O., Robertson, C., Hurt, R. D.  
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- **Downloadable computer models for renal replacement therapy** *KIDNEY INTERNATIONAL*  
Walther, J. L., Bartlett, D. W., Chew, W., Robertson, C. R., Hostetter, T. H., Meyer, T. W.  
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- **The clearance of protein-bound solutes by hemofiltration and hemodialfiltration** *KIDNEY INTERNATIONAL*  
Meyer, T. W., Walther, J. L., Pagtalunan, M. E., Martinez, A. W., Torkamani, A., Fong, P. D., Recht, N. S., Robertson, C. R., Hostetter, T. H.  
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- **Helical crystallization on lipid nanotubes: Streptavidin as a model protein** *JOURNAL OF STRUCTURAL BIOLOGY*  
Dang, T. X., Farah, S. J., Gast, A., Robertson, C., Carragher, B., Egelman, E., Wilson-Kubalek, E. M.  
2005; 150 (1): 90-99
- **Increasing dialysate flow and dialyzer mass transfer area coefficient to increase the clearance of protein-bound solutes** *JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY*  
Meyer, T. W., Leeper, E. C., Bartlett, D. W., Depner, T. A., Lit, Y. Z., Robertson, C. R., Hostetter, T. H.  
2004; 15 (7): 1927-1935
- **Surface plasmon resonance/surface plasmon enhanced fluorescence: An optical technique for the detection of multicomponent macromolecular adsorption at the solid/liquid interface** *LANGMUIR*  
Roy, S., Kim, J. H., KELLIS, J. T., Poulose, A. J., Robertson, C. R., Gast, A. P.  
2002; 18 (16): 6319-6323
- **Protease adsorption and reaction on an immobilized substrate surface** *LANGMUIR*  
Kim, J. H., Roy, S., KELLIS, J. T., Poulose, A. J., Gast, A. P., Robertson, C. R.  
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- **Point mutagenesis and cocrystallization of wild-type and mutant proteins: A study of solid-phase coexistence in two-dimensional protein arrays** *LANGMUIR*  
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- **Protease activity on an immobilized substrate modified by polymers: Subtilisin BPN'** *LANGMUIR*  
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  - **An interfacial stress rheometer to study rheological transitions in monolayers at the air-water interface** *LANGMUIR*  
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  - **Molecular arrangement in two-dimensional streptavidin crystals** *LANGMUIR*  
Wang, S. W., Robertson, C. R., Gast, A. P.  
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  - **Prying open the door to the tobacco industry's secrets about nicotine - The Minnesota Tobacco Trial** *JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*  
Hurt, R. D., Robertson, C. R.  
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  - **Orientation in a fatty acid monolayer: Effect of flow type** *LANGMUIR*  
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  - **Influence of pH on two-dimensional streptavidin crystals** *LANGMUIR*  
Yatcilla, M. T., Robertson, C. R., Gast, A. P.  
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  - **Flow-induced deformation and relaxation processes of polydomain structures in Langmuir monolayer** *Symposium on Organic Thin Films held at the 213th National Meeting of the American-Chemical-Society*  
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● **USE OF GLUCOSE STARVATION TO LIMIT GROWTH AND INDUCE PROTEIN-PRODUCTION IN *ESCHERICHIA-COLI BIOTECHNOLOGY AND BIOENGINEERING***

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● **PHYSIOLOGICAL AND GENETIC STRATEGIES FOR ENHANCED SUBTILISIN PRODUCTION BY *BACILLUS-SUBTILIS BIOTECHNOLOGY PROGRESS***

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● **MANIPULATION OF HYDROPHOBIC INTERACTIONS IN PROTEIN ADSORPTION *LANGMUIR***

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● **PERFORMANCE OF THE POLYPROPYLENE FIBER TAILSTRING ON THE COPPER-7 INTRAUTERINE-DEVICE *JOURNAL OF APPLIED BIOMATERIALS***

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