

NAME: _____

RESEARCH INTEREST QUESTIONNAIRE

Please rank three of the following major areas in order of preference (1-first preference, 2-second, etc.).

_____ Analytical
_____ Organic
_____ Biochemistry

_____ Inorganic
_____ Physical
_____ Chemical Education

Below is a list of the research interests in our department. Please check the specialty areas which you feel may be of interest to you and return this form with your application.

Analytical Chemistry

- Electrochemical methods, fundamentals and applications
- NMR of polymers/biomolecules
- Mass spectrometry of polymers/biomolecules
- Analytical techniques in drug discovery
- Molecular imaging
- Analytical techniques in polymer chemistry
- Single molecule measurements

Organic Chemistry

- Synthesis of donor-acceptor compounds
- Solar energy conversion
- Synthesis of luminescent materials
- Supramolecular design
- Synthesis of molecular sensors
- Laser spectroscopy of ultrafast reactions
- Synthesis and Study of Organic Self-Assemblies

Biochemistry

- Bioinformatics, proteomics, and metabolomics
- Cellular signaling and molecular biology
- Enzymology
- Medicinal chemistry and drug discovery
- Protein and nucleic acid structure
- Membrane Protein Structure and Function

Inorganic Chemistry

- X-ray structure elucidation
- Coordination chemistry
- Main group chemistry
- Organometallic chemistry
- Bioinorganic and medicinal inorganic chemistry

Physical Chemistry

- Quantum chemistry
- Molecular spectroscopy
- Optical Microscopy and advanced imaging
- Biophysical chemistry
- Molecule structure and dynamics
- Computational or theoretical chemistry
- Photocatalysis

Chemical Education

- General chemistry classroom curriculum
- Process oriented guided inquiry learning (POGIL)
- Technology enhanced classroom teaching
- STEM education and public policy
- Low cost and DIY laboratory instrumentation