

Innovations in Microwave Spectroscopy

Research Topics

- Molecular Structure and Chirality Control
 - New Approaches in Absolute Structure of Chiral Species
 - Chiral Selectivity Experiments using MW Fields
 - Monomer and Weakly Bound Complex Structure Determination
- Instrumentation Development
 - Multiple Detection CP-FTMW/3-wave mixing Technique
 - Exotic Source-Equipped CP-FTMW Techniques
- Understanding Complicated Spin Interactions
 - Detecting and Analyzing Forbidden Transitions
 - Spin couplings in actinide molecules as a probe for *f*-electron bonding schemes
 - Understanding weakly bound O₂ complexes

Facilities

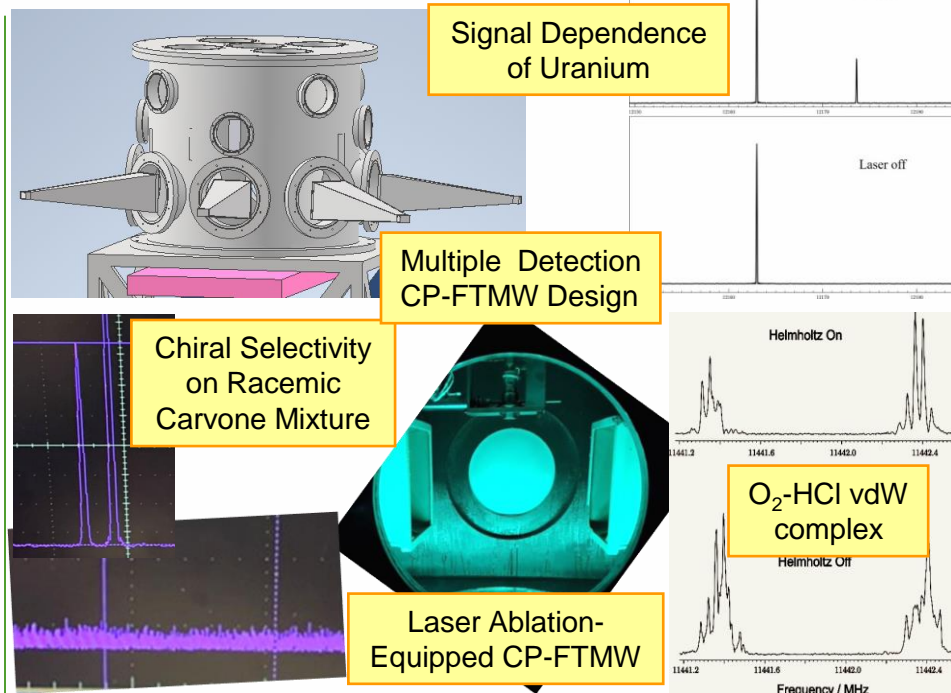
- Materials Research Center Member
- High Performance Computing Center Member
- Founder of the Midwest Microwave Consortium

PoC

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Funding



Keywords

- Microwave Spectroscopy, Rotational Spectroscopy, Molecular Structure, Chirality, Actinide Chemistry

Recognitions/Significant achievements

- 2021 Tappemeyer Teaching Excellence Award Winner
- 2019 Flygare Award Winner
- 2018 ACS Kavli Foundation Emerging Leader in Chemistry Nominee
- Editor of the Microwave Spectroscopy Information Letter