

Center for Molecular Quantum Transduction (CMQT)

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MISSION: Quantum transduction is the coherent exchange of information between quantum systems, which is an essential element of quantum information science. The mission of **CMQT** is to develop the fundamental scientific understanding needed to conduct quantum-to-quantum transduction through a bottoms-up synthetic approach that imparts atomistic precision to quantum systems.

RESEARCH PLAN

- Investigate spin-photon transduction in hybrid materials at both the ensemble and single molecule levels.
- Explore spin-spin transduction in hybrid materials as a modular and generalized approach to exchanging quantum information between dissimilar quantum systems.
- Develop new strategies for employing transduction to enhance the readout of quantum information encoded in molecular spin qubits.

