P5598: Predicting Fluorescence Quantum Yield of NO $A^2\Sigma^+$ via State-to-State Collisional Energy Transfer Model

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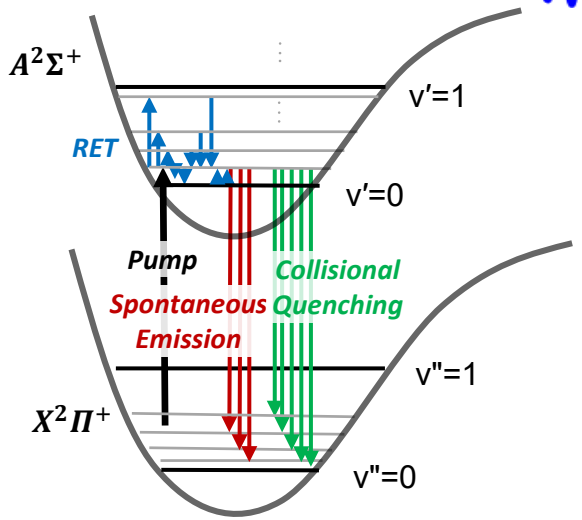
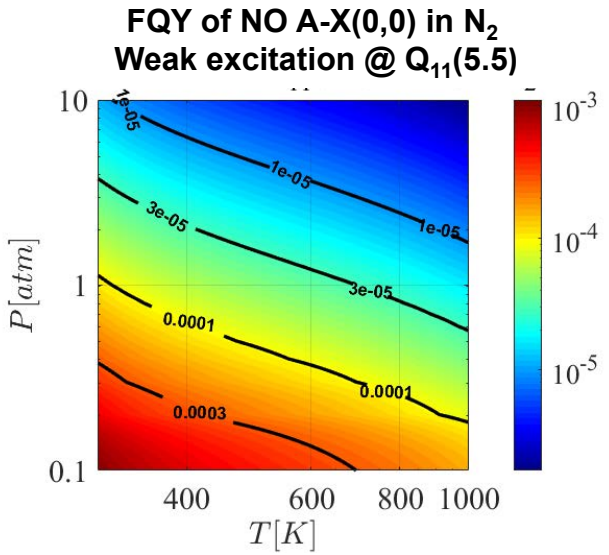
- Developed a framework for modeling the FQY of NO A-X(0,0) system in a rotational-level resolved manner
- Reviewed existing data on k_q & k_{rot} for NO $A^2\Sigma^+$ and provided corresponding fitting expressions over 300 - 1700 K and 15 - 300 K, respectively, and for 5 collision partners
- Assembled master equations for calculating the temporal evolution of state populations; used master equations to model FQY for both CW & pulsed excitation





This work is supported by
- Beijing Natural Science Foundation, *Grant # 21C20016*
- Pioneer Researcher Program - Peking University, *Grant # 7101302626*