Title: Using Non-linear Statistical Methods with Laboratory Kinetic Data

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Abstract:
This poster will demonstrate the usefulness of standard non-linear statistical analysis on ICR and SIFT kinetic data. The specific systems used in the demonstration are the isotopic and charge transfer reactions in the systems of H2O+/D2O, H3O+/D2O, and other permutations. Actual uncertainty limits are placed on the reaction rate coefficients and branching ratios. Error of determination increases from primary reactions to secondary reactions, etc.