

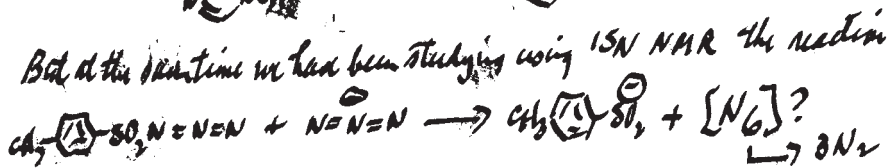
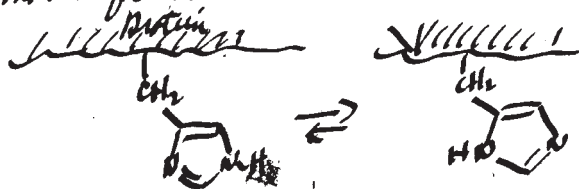
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¹⁵N NMR of enzymes

November 3, 1971

Dear Prof Nozaki: It has been more than 14 years since the memorable Japan-US conference on physical organic chemistry. Much has changed. Weinstein passed on, Hammond no longer at Caltech but in industry, and Bartlett in Texas instead of Harvard. Only Ron Breslow and I are still at the same institutions. Ron is department chairman and after the first of the year I am supposed to be vice-president of ours. The only thing that has not changed is YOU! - still alert, vigorous, young in spirit and obviously in wonderful physical condition - WONDERFUL!!

This trip to Japan is the first for me since 1965 and will be a very short one. Fifteen years ago I was just getting heavily into research on NMR and its uses in physical organic chemistry. Since then I have moved from proton → fluorine → carbon and finally to ¹⁵N NMR where we have had our best success with enzymes in being able for a rather small enzyme to determine the equilibrium constant for the histidine tautomers at the catalytic site as below:



Our hope is that the N₆ involved gives 3N₂ by: