THE DISSOCIATION OF ACETOPHENONE AND HIGH RESOLUTION SPECTROSCOPY OF BENZOYL RADICAL.

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Upon excitation to the S_2 electronic state, acetophenone dissociates with unit probability to form benzoyl and methyl radicals. We have obtained jet-cooled REMPI spectra of acetophenone and structure which we provisionally assign to Rydberg states of the benzoyl radical.