FLUORESCENCE OF MATRIX-ISOLATED BIACETYL

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Matrix-isolated biacetyl ($C_4H_6O_2$) was irradiated at 514nm and 488nm. Emission was observed throughout the 200-800nm region, including at wavelengths shorter than those of the incident radiation. These are the result of sequential and simultaneous two-photon excitation. Some of the emission comes from the parent while other emission may be attributed to nascent photoproducts. The effects of concentration, matrix, and isotopic substitution on the observed emission will be discussed.