VIBRATIONAL SPECTROCOPY OF THE OCCN RADICAL THROUGH TIME RESOLVED FOURIER TRANSFORM INFRARED EMISSION SPECTROSCOPY

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The CN stretch of the OCCN radical was observed for the first time at 2093 cm^{-1}. The method of detection was by nanosecond Fourier-transform infrared emission spectroscopy. The radical was produced through UV photodissociation(λ=193 nm) of carbonyl cyanide, $CO(CN)_2$ and pivaloyl cyanide, $CO(CN)(CH_3)_3$ which leaves the radical with sufficient internal excitation. Infrared and near-infrared emission from all vibrationally excited species was detected. Pressure dependence, rotational band contour analysis and *ab initio* calculations all aided in assignment.