PHOTOCHEMISTRY OF NITROMETHANE ADSORBED ON ALKALI HALIDE FILMS

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Nitromethane was adsorbed at low temperature onto sublimated alkali halide films. Irradiation of the adsorbate at wavelengths below 250 nm produced a variety of photoproduct species. We have identified a number of the primary photoproducts ($CH_3ONO$, $H_2CO$, HNO) as well as species resulting from secondary photolysis (CO, $N_2O$). The quantum efficiencies for production of these species were determined as a function of irradiation wavelength and surface temperature.