LOW-LYNIG ELECTRONIC STATES OF BiOH AND BiOD

R. GIELEN, O. SHESTAKOV, AND E. H. FINK, *Physikalische Chemie, FB 9, Universität-GH, D-42097, Wuppertal, Germany*.

Laser-induced fluorescence measurements with a pulsed dye laser and measurements of near-infrared chemiluminescence spectra with a high-resolution Fourier-transform spectrometer have been used to study electronic states and transitions of triatomic radicals in the gas phase. The topic of the present work was the first study of the low-lying electronic states of the hitherto unknown triatomic radicals BiOH (BiOD) using LIF in the near-infrared (NIR) and visible region and Fourier-transform emission spectroscopy (FT) in the NIR region. In addition to BiOH(D), the heavier species BiSH(D), BiSeH(D), and BiTeH(D) have also been studied by means of FT and LIF measurements.