THE INFRARED SPECTRA OF $\mathrm{SO_2}^-$ AND $(\mathrm{SO_2})_2^-$ ISOLATED IN SOLID NEON

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Studies of the infrared absorptions shown by SO_2 samples codeposited in a large excess of neon at 5 K with a beam of neon atoms excited in a microwave discharge will be presented. Analysis of the data results in the identification of SO_2^- and of $(SO_2)_2^-$. The previously reported infrared spectral assignment for SO_2^- is revised, and information is obtained regarding the structure of $(SO_2)_2^-$.