MOLECULAR BEAM OPTICAL STARK MEASUREMENTS OF ScS

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The molecular beam optical LIF spectrum of the B²Σ⁺ - X²Σ⁺ band system of scandium monosulfide, ScS, has been recorded. The branch features associated with the low rotational levels were also recorded in the presence of a static electric field. The spectra were analyzed to produce magnetic hyperfine parameters and permanent electric dipole moments. Comparisons with the theoretical predictions of Bauschlicher and Langhoff, and experimentally determined values for ScO are made.