

## THE FAR-INFRARED SPECTRUM OF DEUTERIUM IODIDE (DI)

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Pure rotational transitions within the ground state of deuterium iodide (DI) have been measured over the range  $J'' = 2$  to 10 by tunable far-infrared (TuFIR) spectroscopy. The spectra show large electric-quadrupole splittings arising from the  $^{127}\text{I}$  nuclear spin ( $I = 5/2$ ). A least-squares fit to the measured transitions has resulted in accurate values for the molecular parameters  $B$ ,  $D$ ,  $eQq$ ,  $D_{eQq}$  and  $C_I$ .