

THE CHLORINE NUCLEAR QUADRUPOLE COUPLING CONSTANT IN HSiCl

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HSiCl was produced by a pulsed discharge of free expansions of (CH₃)₃SiCl or HSiCl₃ diluted in a rare gas carrier. The 1₀₁ - 0₀₀ microwave transitions in H²⁸Si³⁵Cl, H²⁸Si³⁷Cl, H²⁹Si³⁵Cl, H³⁰Si³⁵Cl were measured at 14 - 15 GHz by FTMW spectroscopy. The effective rotational constants were obtained and the chlorine nuclear quadrupole coupling constants of the four isotopomers were determined. These hyperfine constants will be discussed and compared with those of related chlorosilylenes and chlorosilanes.

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^bSupport by Hiroshima City University President-Designated Grant for Long-Term Research Abroad for Young Researchers is gratefully acknowledged.