INFRARED SPECTRUM OF THE PRODUCTS OF THE INTERACTION OF EXCITED NEON ATOMS WITH CCl_4 TRAPPED IN SOLID NEON

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When a Ne:CCl_4 sample is codeposited at approximately 5 K with a beam of neon atoms that have been excited in a microwave discharge, the infrared spectrum of the resulting solid deposit shows prominent absorptions that have previously been assigned [a] to Cl_2CCl–Cl, as well as other absorptions of uncharged, cationic CCl_n (n = 1-3) and anionic CCl_n (n = 3,4) species. Studies of Ne:$^{1}3CCl_4$ samples and studies of the photodestruction of the products when the deposit is subjected to various bands of visible and ultraviolet radiation support the proposed assignments.

[a] G. Maier, H. P. Reisenauer, J. Hu, B. A. Hess, Jr., and L. J. Schaad, Tetrahed. Lett. 30, 4105 (1989).