CH_2I_2

CHI_2

~~CHI_3~~

LiI

CI_3

(Vi)

(U.K. chem.)

1972

132702e Matrix infrared spectra and bonding in the di- and triiodomethyl radicals. Smith, David W.; Andrews, Lester (Chem. Dep., Univ. Virginia, Charlottesville, Va.). *J. Phys. Chem.* 1972, 76(19), 2718–26 (Eng). The codeposition of either CHI_3 or CI_4 at high diln. in Ar with ^6Li or ^7Li produced new ir absorptions which are attributed to LiI and the CHI_2 or CI_3 free radicals, resp. The identity of the CHI_2 radical is confirmed by the reactions of CDI_3 with Li and CHI_3 with Na atoms. Assignments are made to the antisymmetric HCI valence angle bend and to the antisymmetric C-I stretch of CHI_2. The pyrolysis of CI_4 also produced CI_3; an assignment is made to the antisymmetric C-I stretch. The high values of F_r-F_{rr} in CHI_2 (2.54 ± 0.03 mdyne/Å) and CI_3 (2.13 mdyne/Å) indicate considerable π-bonding in the CHI_2 and CI_3 free radicals.

CA. 1972, 77. 20

CHI_2 | Smith D.W., Andrews L. | 1972

ИК матрица

J. Phys. Chem., 1972, 76, N19, 2718

CHI_2 плоск. C_{2v}

ν_3 - симм. HCI деф. } нет в за
ν_6 неплоск. деф. } пределами рабочего диапаз.

ν_4 антисим. HCI деф. 1106,4 cm^{-1}.

ν_5 C-I вал. колеб. антисим. 716,4 cm^{-1}.
stretch. находится выше чем в CH_2I_2

$F_{44} = 2{,}537 \cdot 10^5$ dynes^{-1}.

$F_{45} = 0{,}243$ millidynes/radian

$F_{55} = 0{,}395$ millidynes $\cdot$ Å/radian^2

(CHI_3 $F_{55} = 0{,}413$ mdyÅ/rad^2).

CHI_2 1989

Сущанин И. В.,
Кишко С. М. и др.
Оптика и спектро-
м. п. скопия. 1989. 66, №2.
С. 475–477.

(см. СНI; III)