Ion Chemistry in XH_4/Allene (X = Ge, Si) Gaseous Mixtures − Formation of X−C Bonds

Paola Benzi, Lorenza Operti,* Roberto Rabezzana

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Due to a correction error, some columns of Table 6 on page 510 remained misaligned rendering the table incomprehensible. The correct version is given below.

Table 6. Reactions of $Si_3H_5^+$, $Si_4H_7^+$,$SiC_2H_n^+$, and $SiC_3H_n^+$ ions with allene and silane in a SiH_4/C_3H_4 mixture

Reactants	Product Ions and Rate Constants (k_{exp})[a]	Σk_{exp}	k_L[b]	Efficiency[c]
$Si_3H_5^+ + C_3H_4$	$Si_3CH_5^+$ (0.93), $Si_3CH_9^+$ (0.90), $Si_3C_3H_5^+$ (2.6)	4.4	10.38	0.43
$Si_4H_7^+ + C_3H_4$	$Si_3C_3H_5^+$ (0.46), $Si_4CH_7^+$ (0.80), $Si_4CH_{11}^+$ (0.78), $Si_4C_3H_7^+$ (1.6)	3.6	9.96	0.36
$SiC_2H_3^+ + C_3H_4$	$SiC_3H_3^+$ (0.50), $SiC_3H_5^+$ (0.76), $SiC_5H_5^+$ (1.3)	2.6	11.35	0.23
$SiC_2H_5^+ + C_3H_4$	$SiC_2H_3^+$ (2.4), $SiC_3H_5^+$ (0.90), $SiC_3H_7^+$ (0.67), $SiC_5H_7^+$ (1.5)	5.5	11.26	0.49
$SiC_3H_5^+ + C_3H_4$	$SiC_4H_5^+$ (1.1), $SiC_4H_7^+$ (0.39)	1.5	10.85	0.14
$SiC_3H_6^+ + C_3H_4$	$SiC_4H_6^+$ (0.74), $SiC_4H_8^+$ (0.32), $SiC_5H_7^+$ (0.97), $SiC_6H_9^+$ (2.2)	4.2	10.82	0.39
$SiC_3H_6^+ + SiH_4$	$Si_2C_3H_8^+$ (0.95)	0.95	10.38	0.092
$SiC_3H_7^+ + C_3H_4$	$SiC_3H_5^+$ (0.15), $SiC_4H_7^+$ (1.6), $SiC_4H_9^+$ (0.66), $SiC_5H_7^+$ (1.1), $SiC_6H_9^+$ (1.3), $SiC_6H_{10}^+$ (0.25)	5.1	10.80	0.47
$SiC_3H_7^+ + SiH_4$	$Si_2C_3H_9^+$ (0.38)	0.38	10.36	0.037

[a] Rate constants are expressed as 10^{-10} $cm^3molecule^{-1}s^{-1}$; experiments were run at 333 K; uncertainty is within 20%. − [b] Rate constants have been calculated according to the Langevin theory calculating polarizability of C_3H_4 as in ref.[19], and taking polarizability of SiH_4 from ref.[20] − [c] Efficiency has been calculated as the ratio $\Sigma k_{exp}/k_L$.

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