Electronic Supplementary Information for

Stretching-mode specificity in the Cl + CH_3D(v_1-I, v_1-II, and v_4 = 1; $|jK\rangle$) reactions: Dependency on the initial $|jK\rangle$ selectivity

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Fig. S1 (raw images) and Table S1 (rotational energy disposal)

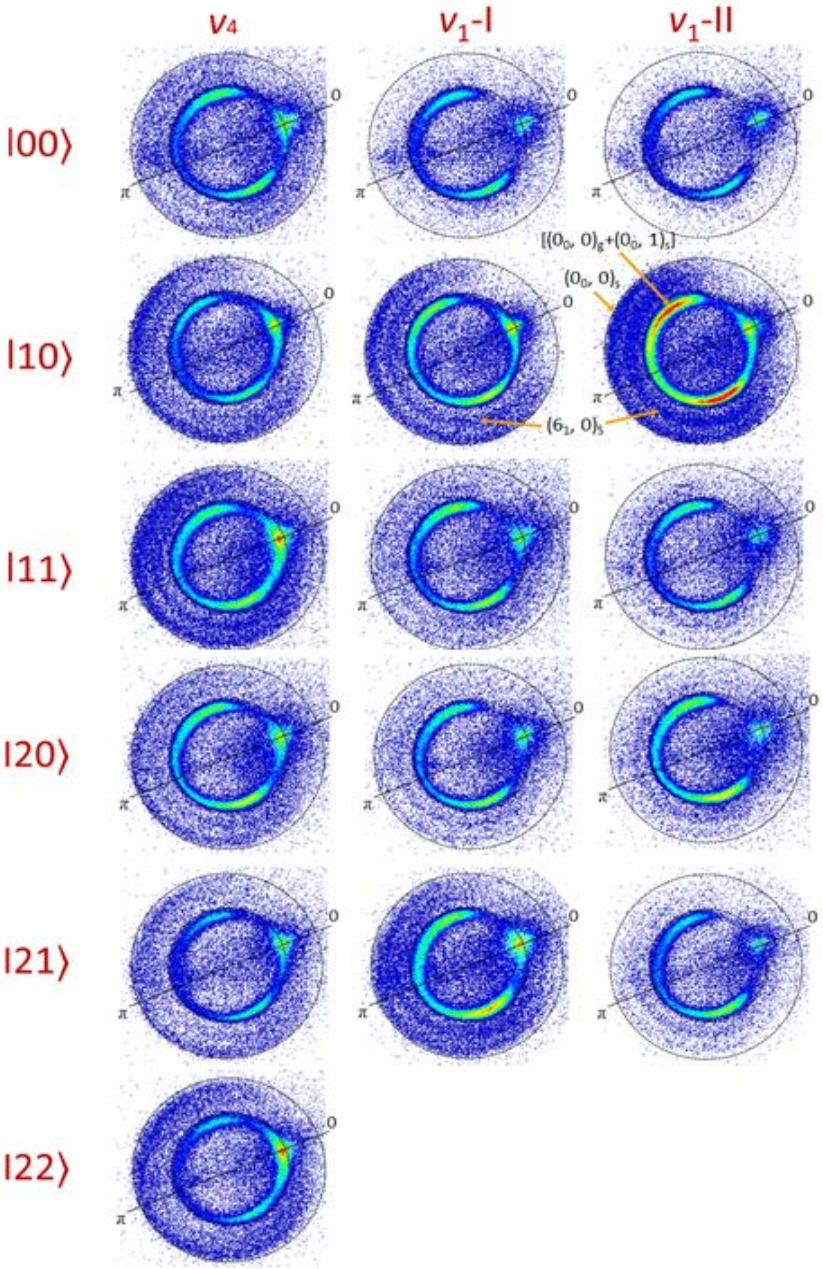

Fig. S1 Raw difference-images, obtained by [(IR-on) – (1– n_s/n_0)·(IR-off)], of the probed $CH_2D(0_0/6_1)$ products in 16 ro-vibrationally selected reactions of Cl + $CH_3D(v_4, v_1\text{-I}, v_1\text{-II}; |jK\rangle)$ at E_c = 5.4 kcal mol^{-1}.

Table S1 Comparison of the averaged rotational energy, $\langle E_R \rangle$ in kcal mol^{-1}, of the (0_0, 0) product pairs in both the stretch-excited and the ground-state reactions of Cl + CH_3D. The $\langle E_R \rangle$ values and the quoted uncertainties (± two standard deviations) were deduced from the measured TKER distributions of the corresponding $(0_0, 0)_{s/g}$ pairs acquired in three to five independent experiments (see text for details).

$\|jK\rangle$	$(0_0, 0)_g$	$(0_0, 0)_s$		
		ν_4	ν_1-I	ν_1-II
$\|00\rangle$	0.52 ± 0.20	3.01 ± 0.32	2.86 ± 0.32	2.79 ± 1.06
$\|10\rangle$		2.52 ± 0.21	2.54 ± 0.25	2.40 ± 0.14
$\|11\rangle$		3.54 ± 0.20	3.16 ± 1.16	3.05 ± 0.30
$\|20\rangle$		3.22 ± 0.20	3.46 ± 0.16	3.02 ± 0.28
$\|21\rangle$		3.24 ± 0.36	3.15 ± 0.98	3.02 ± 0.68
$\|22\rangle$		2.98 ± 0.04		