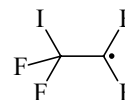


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UED $\text{C}_2\text{F}_4\text{I}$ 

1,1,2,2-Tetrafluoro-2-iodoethyl

 $\text{C}_s$ 

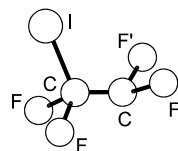
$r^a$	$\text{\AA}^b$	$\theta^a$	$\text{deg}^b$
C–I	2.153(13)	C–C–I	115.0(31)
C–F	1.340(37)	C–C–F	108.6(60)
C–C	1.478(49)	C–C–F'	117.9(31)
C–F'	1.277(27)	F–C–F/2	54.0(56)
		F'–C–F'/2	59.9(39)



The structure of the transient intermediate radical,  $\text{C}_2\text{F}_4\text{I}$ , in the nonconcerted elimination reaction of  $\text{C}_2\text{F}_4\text{I}_2$  to give  $\text{C}_2\text{F}_4$  and  $\text{I}_2$  was determined using an electron pulse source of 1.07(27) ps. It was found to be a nonbridging (classical) species. The parameters are listed for the *anti* conformer. See [1] for the ground state structure of the parent molecule  $\text{C}_2\text{F}_4\text{I}_2$ , which differs significantly from that listed above. The time constants for formation and depletion of  $\text{C}_2\text{F}_4\text{I}$ , from  $\text{C}_2\text{F}_4\text{I}_2$  and to  $\text{C}_2\text{F}_4$ , were estimated from the changes in the signal intensities to be < 5 and 26(7) ps, respectively. The effective temperature was estimated to be 800 K.

<sup>a</sup>) Unidentified, probably  $r_a$  and  $\theta_a$ .

<sup>b</sup>) Uncertainties were unidentified, probably estimated standard errors.



Ihee, H., Lobastov, V.A., Gomez, U.M., Goodson, B.M., Srinivasan, R., Ruan, C.-Y., Zewail, A.H.: Science **291** (2001) 458.

[1] Thomassen, H., Samdal, S., Hedberg, K.: J. Am. Chem. Soc. **114** (1992) 2810.