A new angle on collision theory

Read the full article at: rsc.li/2PgIARD

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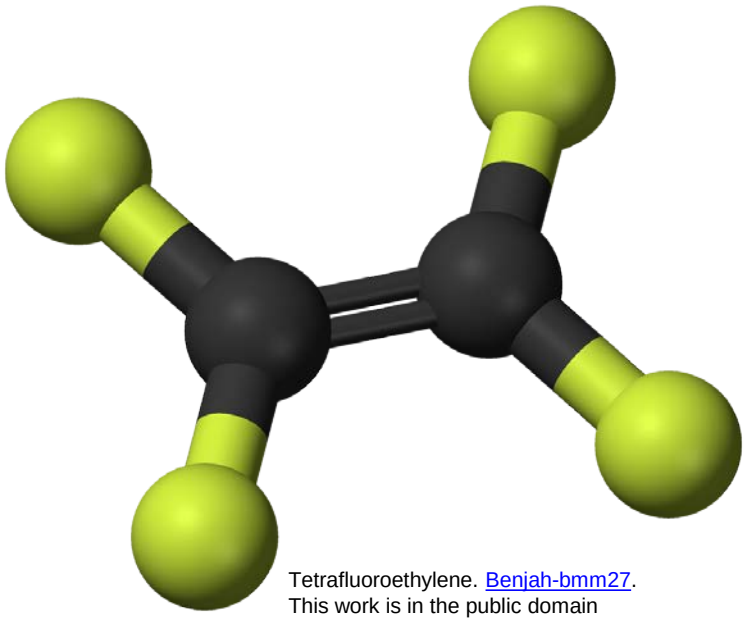

Tetrafluoroethylene. Benjah-bmm27.
This work is in the public domain

First, the team split a molecule to make a CF_2 radical. A radical is a particle with an unpaired electron. They then fired this into a stationary CF_2 radical to make C_2F_4. By changing the position of the stationary radical, they could change the angle of collision.

In a head-on collision, C_2F_4 is formed when the radicals collide. In an offset collision, the radicals bounce off each other first, then react slightly later.

By firing oxygen at biomolecules, the technique could be used to investigate the causes of ageing.

ROYAL SOCIETY OF CHEMISTRY

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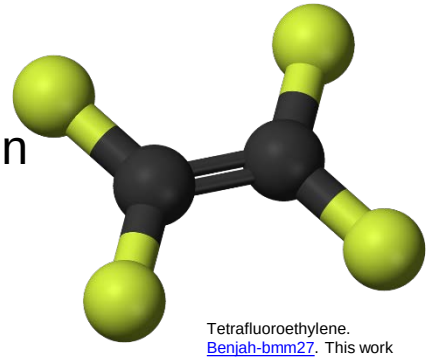

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1. In 1986, John Polanyi won a Nobel prize in chemistry. What are three advantages and three disadvantages of giving people prizes for scientific achievement?
2. Do you think it is important to investigate the causes of ageing? Why?
3. What other factors could affect whether a bond is formed?