The longest carbon–carbon bond in chemistry

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The bond is 1.8 Å long. An Å is unit of length used to measured distances on the atomic scale, named after the Swedish physicist Anders Ångstrom. 1 Å is 0.1 nanometres.



Carbon nanotubes such as the one above also have carbon–carbon bonds. But the Japanese and German molecules are far more complex. Schwarzm / <u>GNU Free</u> <u>Documentation License, version 1.2</u>



The previous record was held by a team in Germany, who made a 1.7 Å bond. But, they dispute the new record for two reasons. One reason is that the Japanese molecule is not an alkane, but the German molecule is. An alkane only has single carbon–carbon bonds, not double bonds.

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- 1. Students are not usually taught that bonds can be different lengths until they get to university. Why do you think that is?
- 2. Ångstrom invented his own units of distance, and so can you. Pick a name and symbol for your units, say how long it is in centimetres, and work out your height in these units.
- 3. The scientists are disagreeing. What is a good way to disagree with someone while staying friends?