

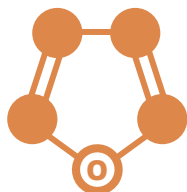
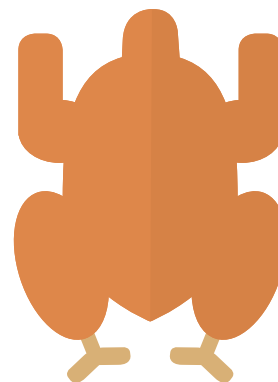
CHEMISTRY ADVENT 2016

19

CHRISTMAS TURKEY

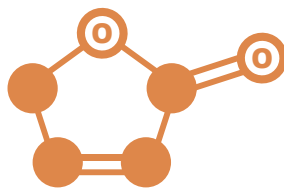
A huge number of chemical reactions occur when you stick your turkey in the oven, including the Maillard reaction, which occurs between amino acids and sugars in the meat during cooking.

Hundreds of products are formed by the Maillard reaction. A small subset of basic types of these compounds are shown below. Compounds called melanoidins are also formed, which contribute to the brown colouration that develops during cooking.



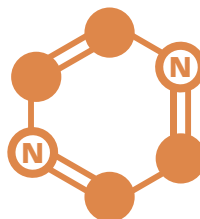
FURANS

meaty, burnt flavours



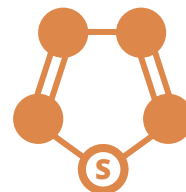
FURANONES

*sweet, caramel-like
flavours*



PYRAZINES

*cooked, roasted
flavours*



THIOPHENES

*meaty, roasted
flavours*

● Carbon ○ Oxygen ● Nitrogen ● Sulfur ○ Hydrogen

Hydrogens on carbon atoms implied; each carbon has 4 bonds.



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