

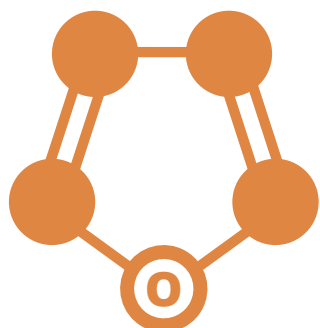
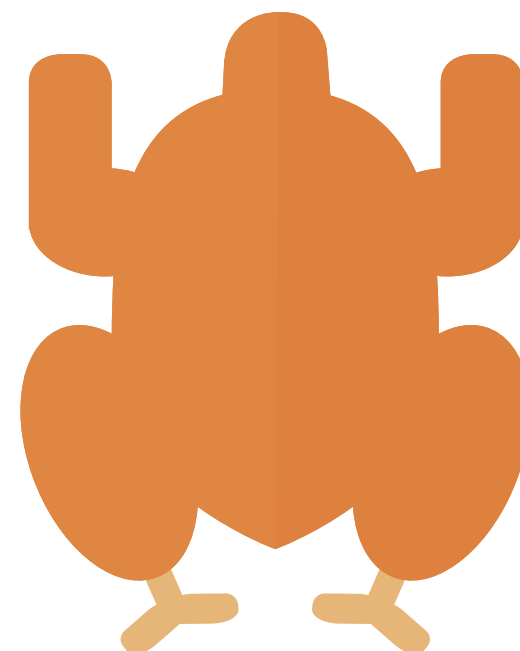
# CHEMISTRY ADVENT

23

## CHRISTMAS TURKEY CHEMISTRY

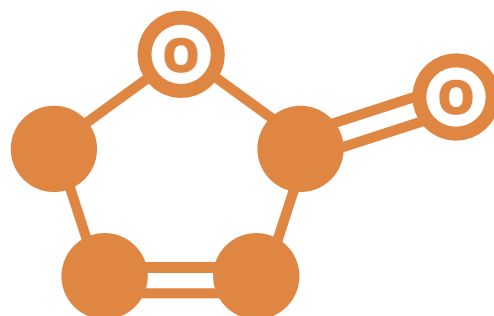
A huge number of chemical reactions occur when you stick your turkey in the oven, including the Maillard reaction, which occurs between amino acids and sugars in the meat during cooking.

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.



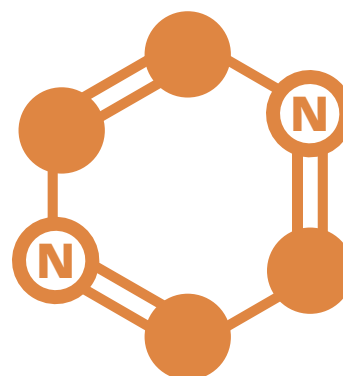
**FURANS**

*meaty, burnt flavours*



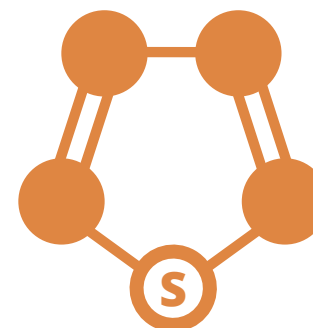
**FURANONES**

*sweet, caramel-like flavours*



**PYRAZINES**

*cooked, roasted flavours*



**THIOPHENES**

*meaty, roasted flavours*

● Carbon    ○ Oxygen    ○ N Nitrogen    ○ S Sulfur    ○ Hydrogen

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

