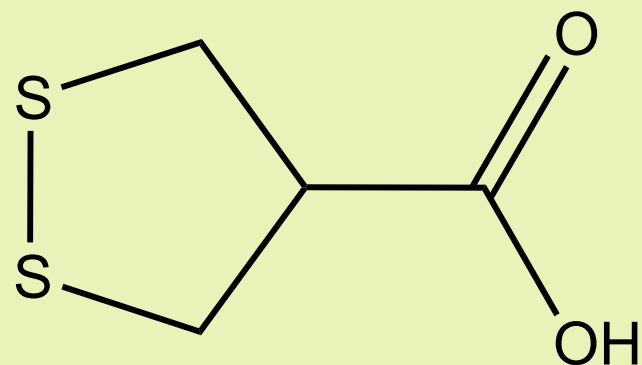


THE CHEMISTRY OF ASPARAGUS

ASPARAGUSIC ACID



ASPARAGUSIC ACID

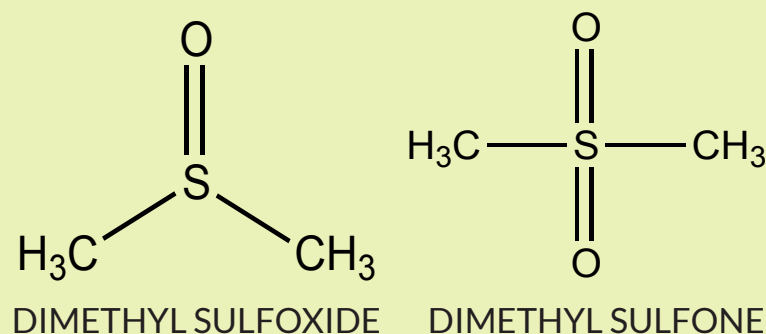
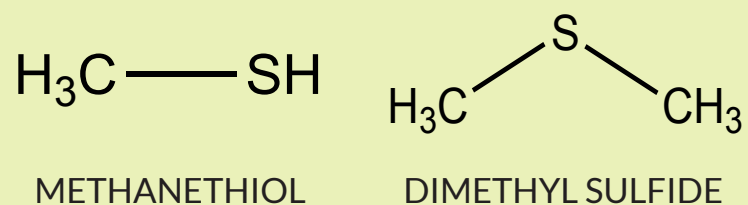
Asparagusic acid is a type of organosulfur compound which also contains a carboxylic acid group. It is seemingly unique to asparagus and not found in other related vegetables.

It has been hypothesised that the breakdown of asparagusic acid into a variety of compounds, shown to the right, could be responsible for the odour detected in the urine of some people after eating asparagus.

Strangely, research has suggested that some people who secrete the compounds in their urine can't smell them, whilst some people don't secrete the compounds but can smell them in the urine of others. It is currently unknown as to whether this complicated combination of traits has a simple genetic basis.



WHY DOES ASPARAGUS MAKE URINE SMELL?



All four of the compounds on the left have been identified as being probable contributors to the smell of urine after eating asparagus.

It has been suggested by several studies that methanethiol & dimethyl sulfide are the primary odour-causing compounds, whilst dimethyl sulfoxide & dimethyl sulfone modify the smell to give a 'sweet' aroma.