Urine Smell And Asparagus

== Structure and reactions == 34d0de7765 == Physiology == 34d0de7765

Urine Eating asparagus can cause a strong odor reminiscent of the Urine is the fluid excreted by the kidneys of vertebrates to clear the bloodstream of excess water and metabolic by-products including urea, uric acid, and creatinine. acids in urine (diagnosed as maple syrup urine disease) can cause it to smell of maple syrup 34d0de7765

The molecule is tetrahedral at the carbon atom, like methanol. It is a weak acid, with a pKa of ~10.4, but is about a hundred thousand times more acidic than methanol. The colorless salt can be obtained by treatment with sodium methoxide: 34d0de7765

Asparagusic acid It is found in asparagus and is believed to be the metabolic precursor to odorous sulfur compounds responsible for the distinctive smell of urine which has long been associated with eating asparagus. The molecule consists of a heterocyclic disulfide functional group (a 1,2-dithiolane) with a carboxylic acid side chain. found in asparagus and is believed to be the metabolic precursor to odorous sulfur compounds responsible for the distinctive smell of urine which has Asparagusic acid is an organosulfur compound with the molecular formula C4H6O2S2 and systematically named 1,2-dithiolane-4-carboxylic acid 34d0de7765

S-Methyl thioacrylate When asparagus is digested, its characteristic asparagusic acid is broken down S-Methyl thioacrylate is an organosulfur compound and a thioester with the chemical formula CH2=CHCOSCH3. It is the S-ester formed between acrylic acid and methanethiol. characteristic odor in the urine of some individuals after consuming asparagus 34d0de7765

Urinalysis words urine and analysis, is a panel of medical tests that includes physical (macroscopic) examination of the urine, chemical evaluation using urine test Urinalysis, a portmanteau of the words urine and analysis, is a panel of medical tests that includes physical (macroscopic) examination of the urine, chemical evaluation using urine test strips, and microscopic examination. Macroscopic examination targets parameters such as color, clarity, odor, and specific gravity; urine test strips measure chemical properties such as pH, glucose concentration, and protein levels; and microscopy is performed to identify elements such as cells, urinary casts, crystals, and organisms 34d0de7765

Marceli Nencki He made Phenyl salicylate or salol in 1886, and introduced Wilhelm Marceli Nencki (15 January 1847 in Boczki, Zduńska Wola County – 14 October 1901 in Saint Petersburg) was a Polish chemist and medical doctor who lived in Congress Poland and other parts of the Russian Empire. the cause of smell in urine following eating asparagus, which he attributed to methanethiol 34d0de7765

== Biological role == 34d0de7765 == Work == 34d0de7765

Dimethyl sulfide savory flavor; in such use, its concentration is low. Beetroot, asparagus, cabbage, maize and seafoods produce dimethyl sulfide when cooked. Dimethyl sulfide 34d0de7765

The material was originally isolated from an aqueous extract of Asparagus officinalis, a spring vegetable. It is a derivative of the cyclic disulfide organic compound 1,2-dithiolane with a carboxylic acid functional group bound to carbon-4 of the heterocycle. Biosynthetic studies revealed that asparagusic acid is derived from isobutyric acid. Asparagusic acid is a colorless solid with a melting point of 75.7–76.5 °C, higher than that of the corresponding dithiol: dihydroasparagusic acid (or γ,γ-dimercaptoisobutyric acid), at 59.5–60.5 °C. 34d0de7765 == Background == 34d0de7765

Parkia speciosa strong smell is very pervasive. It lingers in the mouth and body. Like asparagus, it contains certain amino acids that give a strong smell to one's urine, an 34d0de7765

Urine plays an important role in the earth's nitrogen cycle. In balanced ecosystems, urine fertilizes the soil and thus helps plants to grow. Therefore, urine can be used as a fertilizer. Some animals mark their territories with urine. Historically, aged or fermented urine (known as lant) was also used in gunpowder production, household cleaning, leather tanning, and textile dyeing. 34d0de7765 Nencki's main scientific interest concentrated on urea synthesis, the chemistry of purines and biological oxidation of aromatic compounds. He was also interested in the structure of proteins, enzymatic processes in the intestine and bacterial biochemistry. One of his achievements was for example demonstration that urea is formed in the organism from amino acids rather than being preformed on a protein molecule and that it is accompanied by binding of carbon dioxide. 34d0de7765

Asparagus of eating asparagus on urine excreted afterwards has long been observed: [Asparagus] cause a powerful and disagreeable smell in the urine, as everybody Asparagus (Asparagus officinalis) or garden asparagus is a perennial flowering plant species in the genus Asparagus native to Eurasia. In 2024, world production of asparagus was 8. Widely cultivated as a vegetable crop, its young shoots are used as a spring vegetable. 9 million tonnes, led by China with 87% of the total 34d0de7765

Human urine and feces, called human waste or human excreta, are managed via sanitation systems. Livestock urine and feces also require proper management if the livestock population density is high. 34d0de7765 Among Nencki's greatest achievements was his study on the chemical structure of haemoglobin.

He identified haemopyrrole... 34d0de7765 In 1877 while working at the University of Berne he discovered rhodanine via a reaction between ammonium rhodanide (in modern chemistry ammonium thiocyanate) and chloroacetic acid in water. 34d0de7765 In mammals, urine travels from the kidneys via the ureters to the bladder for storage until urination. Placental mammals expel urine from the bladder through the urethra, whereas other vertebrates urinate through the cloaca. 34d0de7765

Danielle Reed D. "Excretion and Perception of a Characteristic Odor in Urine after Asparagus Ingestion: A Psychophysical and Genetic Study". R. Chemical Senses. (2010) 34d0de7765

He proposed that the synthesis of fatty acids proceeds stepwise, by a gradual condensation of two-carbon-atom fragments and that oxidation of fatty acids occurs by splitting into two-carbon units. 34d0de7765

Methanethiol The production of methanethiol in urine after eating asparagus was once thought to be a genetic trait. It contributes to many odors, including the emissions from pulp mills, bad breath, and flatus. It is a colorless flammable gas with a distinctive putrid smell. Methanethiol is the simplest thiol and is sometimes abbreviated as MeSH. In small amounts, it is pervasive in nature and found in certain foods, such as some nuts and cheese. byproduct of asparagus metabolism. More recent research Methanethiol (METH-ayn-THY-ol), also called methyl mercaptan, is an organosulfur compound with the chemical formula CH3SH 34d0de7765

== Isolation and biosynthesis == 34d0de7765 == Description == 34d0de7765