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Recent advanced techniques in cysteine determination : A review

(Short Survey) (Open Access)

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Abstract

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The utilization of cysteine in a wide variety of products especially bakery products has led to a huge concern of various groups of consumers especially those who restricted to religious-based dietary. It has become a major concern due to the raw materials are derived from arguable sources such as pig bristles and human hair. This review briefly elaborates cysteine as food additives with highlighted issues in halal perspective and toxicity in the food industry. This review also highlighted several analytical approaches used in direct determination of cysteine compound such as high performance liquid chromatography (HPLC), molecular imprinted polymers (MIPs), Raman spectroscopy, flow injection spectrophotometric, electrochemical biosensor and gold nanoparticles based calorimetric assay.

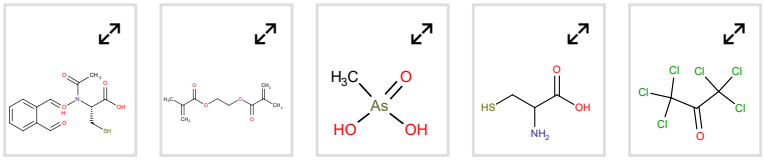
SciVal Topic Prominence

Topic: Cysteine | Glassy Carbon Electrode | Glutathione

Prominence percentile: 86.586

Chemistry database information

Substances



Author keywords

Analytical method | Cysteine | E920 | Food additives | Food security

Indexed keywords

EMTREE drug terms: amino acid, cysteine, ethylene glycol dimethacrylate, food additive, gluten, glycine, gold nanoparticle, keratin, molecularly imprinted polymer, rhodamine B, thiol derivative, tryptophan

EMTREE medical terms: acid hydrolysis, Aspergillus oryzae, calorimetry, cathodic stripping voltammetry, dietary supplement, drug determination, flow injection analysis, food industry, Fourier transform infrared spectroscopy, high performance liquid chromatography, human, hydrogen bond, limit of detection, Raman spectrometry, Short Survey, spectrophotometry, ultraviolet spectroscopy

Chemicals and CAS Registry Numbers:

amino acid, 65072-01-7; cysteine, 4371-52-2, 52-89-1, 52-90-4; ethylene glycol dimethacrylate, 97-90-5; gluten, 8002-80-0; glycine, 56-40-6, 6000-43-7, 6000-44-8; rhodamine B, 81-88-9; thiol derivative, 13940-21-1; tryptophan, 6912-86-3, 73-22-3

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