

Title (en)
MALDI-MATRIX

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MALDI-MATRIX

Title (fr)
MATRICE MALDI

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Application
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Abstract (en)
[origin: CA2496018A1] The invention relates to matrixes for ultraviolet matrix-assisted laser desorption-ionisation mass spectrometry made of the salt of an amine which reacts as a proton acceptor and an organic substance which reacts as a proton donor. Either the amine or the organic substance absorbs UV light. Said matrixes are characterised in that they represent an ionic liquid at room temperature and in that the amine is selected from the group which is made up of 3-aminoquinoline, pyridine, a primary amine whose N-Atom is bound to a phenyl radical or a straight or branched, saturated C1-C11-alkyl radical which can be substituted by an OH-group, a secondary and tertiary amine whose N-Atoms are bound to two or three radicals which can be the same or different and represent a straight or branched, saturated C1-C8-alkyl radical which can be substituted by an OH-group and a phenyl radical, imidazole and the C and/ or N-alkylated imidazole derivatives and also characterised in that the organic substance is selected from the group which is made up of 2,5-dihydroxybenzoic acid and the isomers thereof, 2-hydroxy-5-methoxy-benzoic acid and the isomers thereof, picolinic-acid, 3-hydroxypicolinic acid, nicotinic acid, 5-chloro-2-mercapto-benzo-thiazole, 6-aza-2-thiothymine, 2',4',6'-trihydroxyacetophenone monohydrate, 2',6'-di-hydroxyaceto-phenone, 9H-pyridol[3,4-b]indole, dithranole, trans-3-indolacrylic acid, osazones, ferulic acid, 2,5-dihydroxyacetophenone, 1-nitrocarbazole, 7-amino-4-methylcumarine, 2-(p-hydroxyphenylazo)-benzoic acid, 8-aminopyrene-2,3,4-trisulfonic acid, 2-[2E-3-(4-tert-butylphenyl)-2-methylprop-2-enylidene]malonitril (DCTB), 4-methoxy-3-hydroxycinnamic acid and 3,4-dihydroxycinnamic acid. Said liquid matrixes enable reproducible, error-free analysis values to be obtained. The combination of pure mass spectrometric analysis with additional knowledge of enzymatic reactions/modifications with the possible monitoring is also described.

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