

Title (en)

DEVICE FOR DETECTING AND ANALYZING ATOMS AND/OR MOLECULES BY LASER ABLATION AND TRANSFER TO AN ION TRAP SPECTROMETER, METHOD FOR OPERATING SAID DEVICE AND SPECIFIC USES OF SAID METHOD

Title (de)

VORRICHTUNG ZUM NACHWEIS UND ANALYSE DURCH LASERABTRAGUNG UND ÜBERTRAGUNG IN EINE SPEKTROMETERIONENFALLE SOWIE ZUGEHÖRIGES VERFAHREN

Title (fr)

DISPOSITIF DE DETECTION ET D'ANALYSE PAR ABLATION LASER ET TRANSFERT VERS UNE TRAPPE IONIQUE D'UN SPECTROMETRE ET PROCEDE ASSOCIE

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Application

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Abstract (en)

[origin: FR2797956A1] The invention relates to a device for detecting and analyzing atoms and/or molecules. Said device is characterized in that it comprises the following: a laser source (2); an optical arrangement (3) for aligning and focusing the laser beam (2') that is emitted; an ablation chamber (4, 4') which contains the sample (6) to be analyzed and is exposed to said laser source (2), the laser source being outside the chamber (4, 4') in order to produce neutral atoms and/or molecules in said ablation chamber (4, 4'); and a transfer line (7) for transferring the neutral atoms and/or molecules emitted in the ablation chamber (4, 4'), to said detection or analysis ion trap (8), in a gas current and/or under the influence of the vacuum that prevails in the spectrometer. The atoms and/or molecules are ionized in said ion trap (8), which is separate from the ablation chamber (4, 4'). The invention is particularly suitable for use in the area of physico-chemical analysis.

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