

Title (en)  
MASS SPECTROMETRY OF SAMPLES INCLUDING COAXIAL DESORPTION/ABLATION AND IMAGE CAPTURE

Title (de)  
MASSENSPEKTROMETRIE VON PROBEN MIT KOAXIALER DESORPTIONS-ABLATION UND BILDERFASSUNG

Title (fr)  
SPECTROMÉTRIE DE MASSE D'ÉCHANTILLONS COMPRENANT UNE DÉSORPTION/ABLATION COAXIALE ET UNE CAPTURE D'IMAGE

Publication  
**EP 4111189 A4 20240619 (EN)**

Application  
**EP 21761749 A 20210226**

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Abstract (en)  
[origin: WO2021173934A1] A technique for sample analysis includes capturing an image of an analysis location of a sample disposed within a sample chamber using an imaging device having a field of view into the sample chamber along an axis. Subsequent to capturing the image, a material removal beam is directed along the axis the sample to desorb or ablate sample material from the sample at the analysis location. An ionization beam is then applied to the sample material to generate ionized sample material and the ionized sample material is delivered to a mass spectrometer for analysis. Each of organic and inorganic analysis may be conducted at a given analysis location by desorbing and analyzing organic material and subsequently ablating and analyzing inorganic material, the desorption and ablation processes performed using beams delivered along the same axis as the imaging device's field of view.

IPC 8 full level  
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**H01J 49/0004** (2013.01); **H01J 49/0463** (2013.01); **H01J 49/06** (2013.01); **H01J 49/162** (2013.01)

Citation (search report)  
• [IP] WO 2020210688 A1 20201015 - EXUM INSTR [US]  
• [A] US 2018190478 A1 20180705 - CHEUNG TAK SHUN [CA], et al  
• [A] US 2006097143 A1 20060511 - FRANZEN JOCHEN [DE]  
• [A] US 2010213367 A1 20100826 - MILLER R J DWAYNE [CA]  
• [XI] SAVINA M R ET AL: "Chemical imaging of surfaces with laser desorption mass spectrometry", TRAC TRENDS IN ANALYTICAL CHEMISTRY, ELSEVIER, AMSTERDAM, NL, vol. 16, no. 5, 1 May 1997 (1997-05-01), pages 242 - 252, XP004097039, ISSN: 0165-9936, DOI: 10.1016/S0165-9936(97)00028-9  
• See also references of WO 2021173934A1

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