

Title (en)

SURFACE ANALYSIS SYSTEM COMPRISING A PULSED ELECTRON SOURCE

Title (de)

OBERFLÄCHENANALYSESYSTEM MIT EINER GEPULSTEN ELEKTRONENQUELLE

Title (fr)

SYSTEME D'ANALYSE DE SURFACE COMPRENANT UNE SOURCE PULSEE D'ELECTRONS

Publication

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Application

EP 21720785 A 20210428

Priority

- FR 2004444 A 20200505
- EP 2021061068 W 20210428

Abstract (en)

[origin: WO2021224079A1] The invention relates to a system for analysing the surface of a material, comprising: - a pulsed electron source (10) forming a monochromatic beam of incident electrons (100); - means (20) for conveying incident electrons (100) to the surface of a material sample (55) in such a way as to form backscattered electrons (110), and backscattered electrons (110) to detection means, the conveying means comprising at least one electron optic; - means (30) for detecting backscattered electrons (110); the pulsed electron source comprising: - a source of atoms (16); - a continuous laser beam (15) configured to form a laser excitation zone (15a) capable of exciting the atoms (16) into Rydberg states; - a pulsed electric field (F) on either side of the laser excitation zone, designed to ionise at least the excited atoms and to form a monochromatic electron beam (100).

IPC 8 full level

H01J 37/073 (2006.01); **H01J 37/29** (2006.01)

CPC (source: EP US)

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Citation (search report)

See references of WO 2021224079A1

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