

Title (en)

ELECTRON MICROSCOPE AND SPECTROSCOPY SYSTEM

Title (de)

ELEKTRONENMIKROSKOP UND SPEKTROSKOPISCHES SYSTEM

Title (fr)

MICROSCOPE ELECTRONIQUE ET SYSTEME DE SPECTROSCOPIE

Publication

EP 1412796 A1 20040428 (EN)

Application

EP 02753135 A 20020805

Priority

- GB 0203599 W 20020805
- GB 0118981 A 20010803

Abstract (en)

[origin: WO03014794A1] An electron microscope (10) is adapted to enable spectroscopic analysis of a sample (16). A parabolic mirror (18) has a central aperture (20) through which the electron beam can pass. The mirror (18) focuses laser illumination from a transverse optical path (24) onto the sample, and collects Raman and/or other scattered light, passing it back to an optical system (30). The mirror (18) is retractable (within the vacuum of the electron microscope) by a sliding arm assembly (22). An adjustable kinematic mount (44) defines the inserted position of the parabolic mirror (18). A second parabolic mirror (104) is provided to direct the scattered or generated light towards an optical analyser. The parabolic mirrors are positioned in an aberration cancelling orientation and such that they compensate for inaccuracies in the position of the sliding arm assembly (22).

IPC 1-7

G02B 7/00; **G02B 21/06**

IPC 8 full level

G01N 21/65 (2006.01); **G01J 3/02** (2006.01); **G01N 21/62** (2006.01); **G01N 21/64** (2006.01); **H01J 37/22** (2006.01); **H01J 37/256** (2006.01)

CPC (source: EP)

G01J 3/02 (2013.01); **G01J 3/0202** (2013.01); **G01J 3/0208** (2013.01); **G01J 3/0216** (2013.01); **G01J 3/0243** (2013.01); **H01J 37/228** (2013.01); **H01J 37/256** (2013.01); **H01J 2237/2445** (2013.01); **H01J 2237/2808** (2013.01)

Citation (search report)

See references of WO 03014794A1

Cited by

EP2924707A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

WO 03014794 A1 20030220; EP 1412796 A1 20040428; GB 0118981 D0 20010926; JP 2004538470 A 20041224; JP 2009031314 A 20090212; JP 5095587 B2 20121212

DOCDB simple family (application)

GB 0203599 W 20020805; EP 02753135 A 20020805; GB 0118981 A 20010803; JP 2003519668 A 20020805; JP 2008291333 A 20081113