

Title (en)

DETECTOR CONFIGURATION FOR EFFICIENT SECONDARY ELECTRON COLLECTION IN MICROCOLUMNS

Title (de)

DETEKTORANORDNUNG ZUR EFFIZIENTEN SEKUNDÄRELEKTRONENSAMMLUNG IN MIKROSAÜLEN

Title (fr)

CONFIGURATION DE DETECTEUR POUR UNE COLLECTION EFFICACE D'ELECTRONS SECONDAIRES DANS DES MICROCOLONNES

Publication

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Application

EP 99965863 A 19991122

Priority

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Abstract (en)

[origin: WO0031769A2] A structure and associated method for detecting secondary and backscatter electrons in a microcolumn. A secondary electron detector and a backscatter electron detector, both located upstream of the Einzel (objective) lens in the microcolumn, provide a highly efficient axially symmetric electron detector, short column length, and short working distance. The secondary electron detector is located between the deflection system and the Einzel lens, between the suppressor plate and the Einzel lens, or between the deflection system and the beam-limiting aperture. The backscatter electron detector is located between a beam-limiting aperture and the deflection system and can be incorporated into the aperture. A secondary electron extractor placed between the sample and the Einzel lens further improves the spatial resolution caused by surface imperfection or local surface potential on the sample surface.

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