Title (en)

SCANNING EVANESCENT ELECTRO-MAGNETIC MICROSCOPE

Title (de)

ELEKTROMAGNETISCHE QUERGEDÄMPTE WELLEN- RASTERMIKROSKOP

Title (fr)

MICROSCOPE ELECTROMAGNETIQUE EVANESCENT A BALAYAGE

Publication

EP 1018138 A1 20000712 (EN)

Application

EP 98953178 A 19980922

Priority

- US 9819764 W 19980922
- US 5947197 P 19970922

Abstract (en)

[origin: WO9916102A1] A scanning microscope uses near-field evanescent electromagnetic waves emitted from a sharpened metal tip (20) to probe sample (80) properties. The sharpened tip (20), which is electrically and mechanically connected to a central electrode (18), extends through and beyond an aperture (22) in an endwall (16) of a microwave resonating device, such as a microwave cavity resonator (10). The microscope is capable of high resolution imaging and quantitative measurement of the electrical properties of a sample, such as the dielectric constant, tangent loss, conductivity, and complex electrical impedance measurements.

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H01J 37/20; G01B 7/34

IPC 8 full level

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