

# CPC COOPERATIVE PATENT CLASSIFICATION

## G PHYSICS (NOTES omitted)

### INSTRUMENTS

## G01 MEASURING (counting G06M); TESTING (NOTES omitted)

## G01Q SCANNING-PROBE TECHNIQUES OR APPARATUS; APPLICATIONS OF SCANNING-PROBE TECHNIQUES, e.g. SCANNING PROBE MICROSCOPY [SPM]

### NOTE

In this subclass, the first place priority rule is applied, i.e. at each hierarchical level, classification is made in the first appropriate place.

<b>10/00</b>	<b>Scanning or positioning arrangements, i.e. arrangements for actively controlling the movement or position of the probe</b>	<b>60/00</b>	<b>Particular types of SPM [Scanning Probe Microscopy] or microscopes; Essential components thereof</b>
10/02	. Coarse scanning or positioning	60/02	. Multiple-type SPM, i.e. involving more than one SPM techniques
10/04	. Fine scanning or positioning	60/04	. . STM [Scanning Tunnelling Microscopy] combined with AFM [Atomic Force Microscopy]
10/045	. . {Self-actuating probes, i.e. wherein the actuating means for driving are part of the probe itself, e.g. piezoelectric means on a cantilever probe}	60/06	. . SNOM [Scanning Near-field Optical Microscopy] combined with AFM [Atomic Force Microscopy]
10/06	. . Circuits or algorithms therefor	60/08	. . MFM [Magnetic Force Microscopy] combined with AFM [Atomic Force Microscopy]
10/065	. . . {Feedback mechanisms, i.e. wherein the signal for driving the probe is modified by a signal coming from the probe itself}	60/10	. STM [Scanning Tunnelling Microscopy] or apparatus therefor, e.g. STM probes
<b>20/00</b>	<b>Monitoring the movement or position of the probe</b>	60/12	. . STS [Scanning Tunnelling Spectroscopy]
20/02	. by optical means	60/14	. . STP [Scanning Tunnelling Potentiometry]
20/04	. Self-detecting probes, i.e. wherein the probe itself generates a signal representative of its position, e.g. piezo-electric gauge	60/16	. . Probes, their manufacture, or their related instrumentation, e.g. holders
<b>30/00</b>	<b>Auxiliary means serving to assist or improve the scanning probe techniques or apparatus, e.g. display or data processing devices</b>	60/18	. SNOM [Scanning Near-Field Optical Microscopy] or apparatus therefor, e.g. SNOM probes
30/02	. Non-SPM analysing devices, e.g. SEM [Scanning Electron Microscope], spectrometer or optical microscope	60/20	. . Fluorescence
30/025	. . {Optical microscopes coupled with SPM}	60/22	. . Probes, their manufacture, or their related instrumentation, e.g. holders
30/04	. Display or data processing devices	60/24	. AFM [Atomic Force Microscopy] or apparatus therefor, e.g. AFM probes
30/06	. . for error compensation	60/26	. . Friction force microscopy
30/08	. Means for establishing or regulating a desired environmental condition within a sample chamber	60/28	. . Adhesion force microscopy
30/10	. . Thermal environment	60/30	. . Scanning potential microscopy
30/12	. . Fluid environment	60/32	. . AC mode
30/14	. . . Liquid environment	60/34	. . . Tapping mode
30/16	. . Vacuum environment	60/36	. . DC mode
30/18	. Means for protecting or isolating the interior of a sample chamber from external environmental conditions or influences, e.g. vibrations or electromagnetic fields	60/363	. . . {Contact-mode AFM}
30/20	. Sample handling devices or methods	60/366	. . . {Nanoindenters, i.e. wherein the indenting force is measured}
<b>40/00</b>	<b>Calibration, e.g. of probes</b>	60/38	. . Probes, their manufacture, or their related instrumentation, e.g. holders
40/02	. Calibration standards and methods of fabrication thereof	60/40	. . . Conductive probes
		60/42	. . . Functionalisation
		60/44	. SICM [Scanning Ion-Conductance Microscopy] or apparatus therefor, e.g. SICM probes
		60/46	. SCM [Scanning Capacitance Microscopy] or apparatus therefor, e.g. SCM probes
		60/48	. . Probes, their manufacture, or their related instrumentation, e.g. holders

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- 60/50 . MFM [Magnetic Force Microscopy] or apparatus therefor, e.g. MFM probes
- 60/52 . . Resonance
- 60/54 . . Probes, their manufacture, or their related instrumentation, e.g. holders
- 60/56 . . . Probes with magnetic coating
- 60/58 . SThM [Scanning Thermal Microscopy] or apparatus therefor, e.g. SThM probes
- 60/60 . SECM [Scanning Electro-Chemical Microscopy] or apparatus therefor, e.g. SECM probes
- 70/00 General aspects of SPM probes, their manufacture or their related instrumentation, insofar as they are not specially adapted to a single SPM technique covered by group [G01Q 60/00](#)**
- 70/02 . Probe holders
- 70/04 . . with compensation for temperature or vibration induced errors
- 70/06 . Probe tip arrays
- 70/08 . Probe characteristics
- 70/10 . . Shape or taper
- 70/12 . . . Nanotube tips
- 70/14 . . Particular materials
- 70/16 . Probe manufacture
- 70/18 . . Functionalisation
- 80/00 Applications, other than SPM, of scanning-probe techniques** (manufacture or treatment of nanostructures [B82B 3/00](#); recording or reproducing information using near-field interaction [G11B 9/12](#), [G11B 11/24](#), [G11B 13/08](#))
- 90/00 Scanning-probe techniques or apparatus not otherwise provided for**