

CPC COOPERATIVE PATENT CLASSIFICATION

G PHYSICS (NOTES omitted)

INSTRUMENTS

G01 MEASURING; 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, in the absence of an indication to the contrary, classification is made in the first appropriate place.

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| 10/00 | Scanning or positioning arrangements, i.e. arrangements for actively controlling the movement or position of the probe | 60/00 | Particular types of SPM [Scanning Probe Microscopy] or microscopes; Essential components thereof |
| 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 |
| 20/00 | Monitoring the movement or position of the probe | 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 |
| 30/00 | Auxiliary means serving to assist or improve the scanning probe techniques or apparatus, e.g. display or data processing devices | 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} |
| 40/00 | Calibration, e.g. of probes | 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**