

## SECTION G — PHYSICS

## G01 MEASURING; TESTING

## G01Q SCANNING-PROBE TECHNIQUES OR APPARATUS; APPLICATIONS OF SCANNING-PROBE TECHNIQUES, e.g. SCANNING-PROBE MICROSCOPY [SPM] [2010.01]

Note(s) [2010.01]

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

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| <p><b>10/00</b> Scanning or positioning arrangements, i.e. arrangements for actively controlling the movement or position of the probe [2010.01]</p> <p>10/02 • Coarse scanning or positioning [2010.01]</p> <p>10/04 • Fine scanning or positioning [2010.01]</p> <p>10/06 • • Circuits or algorithms therefor [2010.01]</p> <p><b>20/00</b> Monitoring the movement or position of the probe [2010.01]</p> <p>20/02 • by optical means [2010.01]</p> <p>20/04 • Self-detecting probes, i.e. wherein the probe itself generates a signal representative of its position, e.g. piezo-electric gauge [2010.01]</p> <p><b>30/00</b> Auxiliary means serving to assist or improve the scanning probe techniques or apparatus, e.g. display or data processing devices [2010.01]</p> <p>30/02 • Non-SPM analysing devices, e.g. SEM [Scanning Electron Microscope], spectrometer or optical microscope [2010.01]</p> <p>30/04 • Display or data processing devices [2010.01]</p> <p>30/06 • • for error compensation [2010.01]</p> <p>30/08 • Means for establishing or regulating a desired environmental condition within a sample chamber [2010.01]</p> <p>30/10 • • Thermal environment [2010.01]</p> <p>30/12 • • Fluid environment [2010.01]</p> <p>30/14 • • • Liquid environment [2010.01]</p> <p>30/16 • • Vacuum environment [2010.01]</p> <p>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 [2010.01]</p> <p>30/20 • Sample handling devices or methods [2010.01]</p> <p><b>40/00</b> Calibration, e.g. of probes [2010.01]</p> <p>40/02 • Calibration standards or methods of fabrication thereof [2010.01]</p> <p><b>60/00</b> Particular types of SPM [Scanning-Probe Microscopy] or apparatus therefor; Essential components thereof [2010.01]</p> <p>60/02 • Multiple-type SPM, i.e. involving two or more SPM techniques [2010.01]</p> <p>60/04 • • STM [Scanning Tunnelling Microscopy] combined with AFM [Atomic Force Microscopy] [2010.01]</p> | <p>60/06 • • SNOM [Scanning Near-field Optical Microscopy] combined with AFM [Atomic Force Microscopy] [2010.01]</p> <p>60/08 • • MFM [Magnetic Force Microscopy] combined with AFM [Atomic Force Microscopy] [2010.01]</p> <p>60/10 • STM [Scanning Tunnelling Microscopy] or apparatus therefor, e.g. STM probes [2010.01]</p> <p>60/12 • • STS [Scanning Tunnelling Spectroscopy] [2010.01]</p> <p>60/14 • • STP [Scanning Tunnelling Potentiometry] [2010.01]</p> <p>60/16 • • Probes, their manufacture or their related instrumentation, e.g. holders [2010.01]</p> <p>60/18 • SNOM [Scanning Near-Field Optical Microscopy] or apparatus therefor, e.g. SNOM probes [2010.01]</p> <p>60/20 • • Fluorescence [2010.01]</p> <p>60/22 • • Probes, their manufacture or their related instrumentation, e.g. holders [2010.01]</p> <p>60/24 • AFM [Atomic Force Microscopy] or apparatus therefor, e.g. AFM probes [2010.01]</p> <p>60/26 • • Friction force microscopy [2010.01]</p> <p>60/28 • • Adhesion force microscopy [2010.01]</p> <p>60/30 • • Scanning potential microscopy [2010.01]</p> <p>60/32 • • AC mode [2010.01]</p> <p>60/34 • • • Tapping mode [2010.01]</p> <p>60/36 • • DC mode [2010.01]</p> <p>60/38 • • Probes, their manufacture or their related instrumentation, e.g. holders [2010.01]</p> <p>60/40 • • • Conductive probes [2010.01]</p> <p>60/42 • • • Functionalisation [2010.01]</p> <p>60/44 • SICM [Scanning Ion-Conductance Microscopy] or apparatus therefor, e.g. SICM probes [2010.01]</p> <p>60/46 • SCM [Scanning Capacitance Microscopy] or apparatus therefor, e.g. SCM probes [2010.01]</p> <p>60/48 • • Probes, their manufacture or their related instrumentation, e.g. holders [2010.01]</p> <p>60/50 • MFM [Magnetic Force Microscopy] or apparatus therefor, e.g. MFM probes [2010.01]</p> <p>60/52 • • Resonance [2010.01]</p> <p>60/54 • • Probes, their manufacture or their related instrumentation, e.g. holders [2010.01]</p> <p>60/56 • • • Probes with magnetic coating [2010.01]</p> <p>60/58 • SThM [Scanning Thermal Microscopy] or apparatus therefor, e.g. SThM probes [2010.01]</p> <p>60/60 • SECM [Scanning Electro-Chemical Microscopy] or apparatus therefor, e.g. SECM probes [2010.01]</p> |
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## G01Q

**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 [2010.01]

70/02 • Probe holders [2010.01]

70/04 • • with compensation for temperature or vibration induced errors [2010.01]

70/06 • Probe tip arrays [2010.01]

70/08 • Probe characteristics [2010.01]

70/10 • • Shape or taper [2010.01]

70/12 • • • Nano-tube tips [2010.01]

70/14 • • Particular materials [2010.01]

70/16 • Probe manufacture [2010.01]

70/18 • • Functionalisation [2010.01]

**80/00** Applications, other than SPM, of scanning-probe techniques (manufacture or treatment of micro-structures B81C; manufacture or treatment of nano-structures B82B 3/00; recording or reproducing information using near-field interaction G11B 9/12, G11B 11/24 or G11B 13/08) [2010.01]

**90/00** Scanning-probe techniques or apparatus not otherwise provided for [2010.01]