

CPC**COOPERATIVE PATENT CLASSIFICATION****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.

G01Q 10/00**Scanning or positioning arrangements, i.e. arrangements for actively controlling the movement or position of the probe**

G01Q 10/02

- Coarse scanning or positioning

G01Q 10/04

- Fine scanning or positioning

G01Q 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}

G01Q 10/06

- . Circuits or algorithms therefor

G01Q 10/065

- . . {Feedback mechanisms, i.e. wherein the signal for driving the probe is modified by a signal coming from the probe itself}

G01Q 20/00**Monitoring the movement or position of the probe**

G01Q 20/02

- by optical means

G01Q 20/04

- Self-detecting probes, i.e. wherein the probe itself generates a signal representative of its position, e.g. piezo-electric gauge

G01Q 30/00**Auxiliary means serving to assist or improve the scanning probe techniques or apparatus, e.g. display or data processing devices**

G01Q 30/02

- Non-SPM analysing devices, e.g. SEM [Scanning Electron Microscope], spectrometer or optical microscope

G01Q 30/025

- . {Optical microscopes coupled with SPM}

G01Q 30/04

- Display or data processing devices

G01Q 30/06

- . for error compensation

G01Q 30/08

- Means for establishing or regulating a desired environmental condition within a sample chamber

G01Q 30/10

- . Thermal environment

G01Q 30/12

- . Fluid environment

G01Q 30/14

- . . Liquid environment

G01Q 30/16

- . Vacuum environment

G01Q 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

G01Q 30/20

- Sample handling device or method

G01Q 40/00**Calibration, e.g. of probes**

G01Q 40/02

- Calibration standards and methods of fabrication thereof

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| G01Q 60/00 | Particular type of SPM [Scanning Probe Microscopy] or microscopes; Essential components thereof |
| G01Q 60/02 | <ul style="list-style-type: none"> Multiple-type SPM, i.e. involving more than one SPM technique |
| G01Q 60/04 | <ul style="list-style-type: none"> STM [Scanning Tunnelling Microscopy] combined with AFM [Atomic Force Microscopy] |
| G01Q 60/06 | <ul style="list-style-type: none"> SNOM [Scanning Near-field Optical Microscopy] combined with AFM [Atomic Force Microscopy] |
| G01Q 60/08 | <ul style="list-style-type: none"> MFM [Magnetic Force Microscopy] combined with AFM [Atomic Force Microscopy] |
| G01Q 60/10 | <ul style="list-style-type: none"> STM [Scanning Tunnelling Microscopy] or apparatus therefor, e.g. STM probes |
| G01Q 60/12 | <ul style="list-style-type: none"> STS [Scanning Tunnelling Spectroscopy] |
| G01Q 60/14 | <ul style="list-style-type: none"> STP [Scanning Tunnelling Potentiometry] |
| G01Q 60/16 | <ul style="list-style-type: none"> Probes, their manufacture, or their related instrumentation, e.g. holders |
| G01Q 60/18 | <ul style="list-style-type: none"> SNOM [Scanning Near-Field Optical Microscopy] or apparatus therefor, e.g. SNOM probes |
| G01Q 60/20 | <ul style="list-style-type: none"> Fluorescence |
| G01Q 60/22 | <ul style="list-style-type: none"> Probes, their manufacture, or their related instrumentation, e.g. holders |
| G01Q 60/24 | <ul style="list-style-type: none"> AFM [Atomic Force Microscopy] or apparatus therefor, e.g. AFM probes |
| G01Q 60/26 | <ul style="list-style-type: none"> Friction force microscopy |
| G01Q 60/28 | <ul style="list-style-type: none"> Adhesion force microscopy |
| G01Q 60/30 | <ul style="list-style-type: none"> Scanning potential microscopy |
| G01Q 60/32 | <ul style="list-style-type: none"> AC mode |
| G01Q 60/34 | <ul style="list-style-type: none"> Tapping mode |
| G01Q 60/36 | <ul style="list-style-type: none"> DC mode |
| G01Q 60/363 | <ul style="list-style-type: none"> {Contact-mode AFM} |
| G01Q 60/366 | <ul style="list-style-type: none"> {Nanoindenters, i.e. wherein the indenting force is measured} |
| G01Q 60/38 | <ul style="list-style-type: none"> Probes, their manufacture, or their related instrumentation, e.g. holders |
| G01Q 60/40 | <ul style="list-style-type: none"> Conductive probes |
| G01Q 60/42 | <ul style="list-style-type: none"> Functionalization |
| G01Q 60/44 | <ul style="list-style-type: none"> SICM [Scanning Ion-Conductance Microscopy] or apparatus therefor, e.g. SICM probes |
| G01Q 60/46 | <ul style="list-style-type: none"> SCM [Scanning Capacitance Microscopy] or apparatus therefor, e.g. SCM probes |
| G01Q 60/48 | <ul style="list-style-type: none"> Probes, their manufacture, or their related instrumentation, e.g. holders |
| G01Q 60/50 | <ul style="list-style-type: none"> MFM [Magnetic Force Microscopy] or apparatus therefor, e.g. MFM probes |
| G01Q 60/52 | <ul style="list-style-type: none"> Resonance |
| G01Q 60/54 | <ul style="list-style-type: none"> Probes, their manufacture, or their related instrumentation, e.g. holders |
| G01Q 60/56 | <ul style="list-style-type: none"> Probes with magnetic coating |
| G01Q 60/58 | <ul style="list-style-type: none"> SThM [Scanning Thermal Microscopy] or apparatus therefor, e.g. SThM probes |
| G01Q 60/60 | <ul style="list-style-type: none"> SECM [Scanning Electro-Chemical Microscopy] or apparatus therefor, e.g. SECM probes |

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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 |
| G01Q 70/02 | <ul style="list-style-type: none">• Probe holders |
| G01Q 70/04 | <ul style="list-style-type: none">• <ul style="list-style-type: none">• with compensation for temperature or vibration induced errors |
| G01Q 70/06 | <ul style="list-style-type: none">• Probe tip arrays |
| G01Q 70/08 | <ul style="list-style-type: none">• Probe characteristics |
| G01Q 70/10 | <ul style="list-style-type: none">• <ul style="list-style-type: none">• Shape or taper |
| G01Q 70/12 | <ul style="list-style-type: none">• <ul style="list-style-type: none">• <ul style="list-style-type: none">• Nano-tube tips |
| G01Q 70/14 | <ul style="list-style-type: none">• <ul style="list-style-type: none">• Particular materials |
| G01Q 70/16 | <ul style="list-style-type: none">• Probe manufacture |
| G01Q 70/18 | <ul style="list-style-type: none">• <ul style="list-style-type: none">• Functionalization |
| G01Q 80/00 | Applications, other than SPM, of scanning-probe techniques (manufacture or treatment of nano-structures B82B 3/00; recording or reproducing information using near-field interaction G11B 9/12, G11B 11/24, G11B 13/08) |
| G01Q 90/00 | Scanning-probe techniques or apparatus not otherwise provided for |