ECLA EUROPEAN 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.

G01Q10/00 **Scanning or positioning arrangements, i.e. arrangements for actively controlling the movement or position of the probe** [N0805]

G01Q10/02 . Coarse scanning or positioning [N0805]

G01Q10/04 . Fine scanning or positioning [N0805]

G01Q10/04B . . [N: 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] [N1106]

G01Q10/06 . . Circuits or algorithms therefor [N0805]

G01Q10/06B . . . [N: Feedback mechanisms, i.e. wherein the signal for driving the probe is modified by a signal coming from the probe itself] [N1106]

G01Q20/00 **Monitoring the movement or position of the probe** [N0805]

G01Q20/02 . by optical means [N0805]

G01Q20/04 . Self-detecting probes, i.e. wherein the probe itself generates a signal representative of its position, e.g. piezo-electric gauge [N0805]

G01Q30/00 **Auxiliary means serving to assist or improve the scanning probe techniques or apparatus, e.g. display or data processing devices** [N0805]

G01Q30/02 . Non-SPM analysing devices, e.g. SEM [Scanning Electron Microscope], spectrometer or optical microscope [N0805] [M1106]

G01Q30/02B . . [N: Optical microscopes coupled with SPM] [N1106]

G01Q30/04 . Display or data processing devices [N0805]

G01Q30/06 . . for error compensation [N0805]

G01Q30/08 . Means for establishing or regulating a desired environmental condition within a sample chamber [N0805]

G01Q30/10 . . Thermal environment [N0805]

G01Q30/12 . . Fluid environment [N0805]

G01Q30/14 . . . Liquid environment [N0805]

G01Q30/16 . . Vacuum environment [N0805]

G01Q30/18 . Means for protecting or isolating the interior of a sample chamber from external environmental conditions or influences, e.g. vibrations or electromagnetic fields

N0805]

G01Q30/20 . Sample handling device or method [N0805]

G01Q40/00 **Calibration, e.g. of probes** [N0805]

G01Q40/02 . Calibration standards and methods of fabrication thereof [N0805]

G01Q60/00 **Particular type of SPM [Scanning Probe Microscopy] or microscopes; Essential components thereof** [N0805]

G01Q60/02 . Multiple-type SPM, i.e. involving more than one SPM technique [N0805]
G01Q60/04 . . STM [Scanning Tunnelling Microscopy] combined with AFM [Atomic Force Microscopy] [N0805]
G01Q60/06 . . SNOM [Scanning Near-field Optical Microscopy] combined with AFM [Atomic Force Microscopy] [N0805]
G01Q60/08 . . MFM [Magnetic Force Microscopy] combined with AFM [Atomic Force Microscopy [N0805]

G01Q60/10 . STM [Scanning Tunnelling Microscopy] or apparatus therefor, e.g. STM probes [N0805]
G01Q60/12 . . STS [Scanning Tunnelling Spectroscopy] [N0805]
G01Q60/14 . . STP [Scanning Tunnelling Potentiometry] [N0805]
G01Q60/16 . . Probes, their manufacture, or their related instrumentation, e.g. holders [N0805]

G01Q60/18 . SNOM [Scanning Near-Field Optical Microscopy] or apparatus therefor, e.g. SNOM probes [N0805]
G01Q60/20 . . Fluorescence [N0805]
G01Q60/22 . . Probes, their manufacture, or their related instrumentation, e.g. holders [N0805]

G01Q60/24 . AFM [Atomic Force Microscopy] or apparatus therefor, e.g. AFM probes [N0805]
G01Q60/26 . . Friction force microscopy [N0805]
G01Q60/28 . . Adhesion force microscopy [N0805]
G01Q60/30 . . Scanning potential microscopy [N0805]
G01Q60/32 . . AC mode [N0805]
G01Q60/34 . . . Tapping mode [N0805]
G01Q60/36 . . DC mode [N0805]
G01Q60/36B . . . [N: Contact-mode AFM] [N1106]
G01Q60/36D . . . [N: Nanoindenters, i.e. wherein the indenting force is measured] [N1106]
G01Q60/38 . . Probes, their manufacture, or their related instrumentation, e.g. holders [N0805]
G01Q60/40 . . . Conductive probes [N0805]
G01Q60/42 . . . Functionalization [N0805]

G01Q60/44 . SICM [Scanning Ion-Conductance Microscopy] or apparatus therefor, e.g. SICM probes [N0805]

G01Q60/46 . SCM [Scanning Capacitance Microscopy] or apparatus therefor, e.g. SCM probes

N0805]

G01Q60/48 . . Probes, their manufacture, or their related instrumentation, e.g. holders [N0805]

G01Q60/50 . MFM [Magnetic Force Microscopy] or apparatus therefor, e.g. MFM probes [N0805]

G01Q60/52 . . Resonance [N0805]

G01Q60/54 . . Probes, their manufacture, or their related instrumentation, e.g. holders [N0805]

G01Q60/56 . . . Probes with magnetic coating [N0805]

G01Q60/58 . SThM [Scanning Thermal Microscopy] or apparatus therefor, e.g. SThM probes [N0805]

G01Q60/60 . SECM [Scanning Electro-Chemical Microscopy] or apparatus therefor, e.g. SECM probes [N0805]

G01Q70/00 **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 G01Q60/00** [N0805]

G01Q70/02 . Probe holders [N0805]

G01Q70/04 . . with compensation for temperature or vibration induced errors [N0805]

G01Q70/06 . Probe tip arrays [N0805]

G01Q70/08 . Probe characteristics [N0805]

G01Q70/10 . . Shape or taper [N0805]

G01Q70/12 . . . Nano-tube tips [N0805]

G01Q70/14 . . Particular materials [N0805]

G01Q70/16 . Probe manufacture [N0805]

G01Q70/18 . . Functionalization [N0805]

G01Q80/00 **Applications, other than SPM, of scanning-probe techniques** (manufacture or treatment of nano-structures B82B3/00; recording or reproducing information using near-field interaction G11B9/12, G11B11/24, G11B13/08) [N0805]

G01Q90/00 **Scanning-probe techniques or apparatus not otherwise provided for** [N0805]