

**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

<b>G01Q 60/00</b>	<b>Particular type of SPM [Scanning Probe Microscopy] or microscopes; Essential components thereof</b>
G01Q 60/02	. Multiple-type SPM, i.e. involving more than one SPM technique
G01Q 60/04	.. STM [Scanning Tunnelling Microscopy] combined with AFM [Atomic Force Microscopy]
G01Q 60/06	.. SNOM [Scanning Near-field Optical Microscopy] combined with AFM [Atomic Force Microscopy]
G01Q 60/08	.. MFM [Magnetic Force Microscopy] combined with AFM [Atomic Force Microscopy]
G01Q 60/10	. STM [Scanning Tunnelling Microscopy] or apparatus therefor, e.g. STM probes
G01Q 60/12	.. STS [Scanning Tunnelling Spectroscopy]
G01Q 60/14	.. STP [Scanning Tunnelling Potentiometry]
G01Q 60/16	.. Probes, their manufacture, or their related instrumentation, e.g. holders
G01Q 60/18	. SNOM [Scanning Near-Field Optical Microscopy] or apparatus therefor, e.g. SNOM probes
G01Q 60/20	.. Fluorescence
G01Q 60/22	.. Probes, their manufacture, or their related instrumentation, e.g. holders
G01Q 60/24	. AFM [Atomic Force Microscopy] or apparatus therefor, e.g. AFM probes
G01Q 60/26	.. Friction force microscopy
G01Q 60/28	.. Adhesion force microscopy
G01Q 60/30	.. Scanning potential microscopy
G01Q 60/32	.. AC mode
G01Q 60/34	... Tapping mode
G01Q 60/36	.. DC mode
G01Q 60/363	... { Contact-mode AFM }
G01Q 60/366	... { Nanoindenters, i.e. wherein the indenting force is measured }
G01Q 60/38	.. Probes, their manufacture, or their related instrumentation, e.g. holders
G01Q 60/40	... Conductive probes
G01Q 60/42	... Functionalization
G01Q 60/44	. SICM [Scanning Ion-Conductance Microscopy] or apparatus therefor, e.g. SICM probes
G01Q 60/46	. SCM [Scanning Capacitance Microscopy] or apparatus therefor, e.g. SCM probes
G01Q 60/48	.. Probes, their manufacture, or their related instrumentation, e.g. holders
G01Q 60/50	. MFM [Magnetic Force Microscopy] or apparatus therefor, e.g. MFM probes
G01Q 60/52	.. Resonance
G01Q 60/54	.. Probes, their manufacture, or their related instrumentation, e.g. holders
G01Q 60/56	... Probes with magnetic coating
G01Q 60/58	. SThM [Scanning Thermal Microscopy] or apparatus therefor, e.g. SThM probes
G01Q 60/60	. SECM [Scanning Electro-Chemical Microscopy] or apparatus therefor, e.g. SECM probes

<b>G01Q 70/00</b>	<b>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 <a href="#">G01Q 60/00</a></b>
<a href="#">G01Q 70/02</a>	. Probe holders
<a href="#">G01Q 70/04</a>	. . with compensation for temperature or vibration induced errors
<a href="#">G01Q 70/06</a>	. Probe tip arrays
<a href="#">G01Q 70/08</a>	. Probe characteristics
<a href="#">G01Q 70/10</a>	. . Shape or taper
<a href="#">G01Q 70/12</a>	. . . Nano-tube tips
<a href="#">G01Q 70/14</a>	. . Particular materials
<a href="#">G01Q 70/16</a>	. Probe manufacture
<a href="#">G01Q 70/18</a>	. . Functionalization
<b>G01Q 80/00</b>	<b>Applications, other than SPM, of scanning-probe techniques (<a href="#">manufacture or treatment of nano-structures B82B 3/00</a>; recording or reproducing information using near-field interaction <a href="#">G11B 9/12</a>, <a href="#">G11B 11/24</a>, <a href="#">G11B 13/08</a>)</b>
<b>G01Q 90/00</b>	<b>Scanning-probe techniques or apparatus not otherwise provided for</b>