Index of terms in ISO 18115-2:2013

A

Abbe diffraction limit (NSOM, SNOM) 5.1
active damping 7.1
active length 5.2
AM 3.2
AM-AFM 6.1
AM-AM method (EFM) 7.3
AM-KPFM 3.2
AM detection 6.1
Amonton’s law 7.2
AM detection (AFM) 5.3
amplitude modulation AFM 6.1
amplitude modulation detection (AFM) 5.3
amplitude modulation KPFM 6.2
angle, cone (NSOM, SNOM) 5.31
angle, cone half- (of an AFM probe) 5.70
angle, half tip (of an AFM probe) (deprecated) 5.70
angle, included half- (of an AFM probe) 5.70
angle, semi-vertical (of an AFM probe) (deprecated) 5.70
ANSOM (deprecated) 3.37
anti-Stokes scattering 5.4
aperture (NSOM, SNOM) 5.5
aperture, numerical (NSOM, SNOM) 5.93
apertureless NSOM (deprecated) 3.36
apertureless Raman microscopy (NSOM, SNOM) 3.1
apertureless SNOM (deprecated) 3.36
apex, probe 5.120
artefact 5.6
artifact 5.6
ASNOM (deprecated) 3.36
assembly, cantilever 5.20
assembly, probe 5.20
atomic corrugation 5.7
atomic-force microscopy 3.2

B

back side, cantilever 5.21
ballistic electron 5.8
ballistic electron emission microscopy 6.3
barrier height 5.9
barrier height, local 5.10
barrier height, tunnelling- 5.11
barrier, tunnelling 5.12
barrier width, tunnelling- 5.13
BCP 4.1
BEEM 6.3
Bethe-Bouwkamp model (NSOM, SNOM) 5.14
bias, tip 5.159
blind reconstruction 5.15
bow 5.16
Bückle’s rule 5.17
Burnham-Colton-Pollock model 4.1
C

CAFM (deprecated) 3.4
C-AM (deprecated) 3.4
cantilever 5.18
cantilever apex 5.19
cantilever assembly 5.20
cantilever back side 5.21
cantilever chip 5.26
cantilever reflex side (deprecated) 5.21
cantilever stiffness (AFM) (deprecated) 5.92
capillary force 5.22
carbon nanotube probe 5.23
Carpick-Ogletree-Salmeron model 4.2
CFM 3.3
characterized length 5.24
charge, surface patch 5.155
chemical force 5.25
chemical-force microscopy 3.3
chip 5.26
chip holder 5.27
chip substrate 5.26
CITS (STM) 3.5
closed-loop scanner 5.28
coarse-approach device 5.29
comstitute probe 5.30
conductive-probe atomic-force microscopy (AFM) 3.4
cone angle (NSOM, SNOM) 5.31
cone half-angle (of an AFM probe) 5.70
constant-current mode (STM) 5.32
constant-force mode (AFM) 5.33
constant-height mode 5.34
contact mode (AFM) 5.35
contact resonance atomic force microscopy 6.4
contact resonance force microscopy 6.4
contact, Hertzian 5.66
contour length (polymers) 5.36
contrast (TERS) 7.4
corrected profile 7.5
correlation, atomic 5.7
COS 4.2
CPAFM 3.4
CRAFM 6.4
CRFM 6.4
current-imaging tunnelling spectroscopy (STM) 3.5

d

damping (AFM) 5.37
Derjaguin-Müller-Toporov model 4.3
detector side (of a cantilever) 5.38
DFM (AFM) 3.6
diffraction limit, Abbe (NSOM, SNOM) 5.1
diffraction limit, far-field (NSOM, SNOM) 5.1
dilation (AFM) 5.39
dip pen nanolithography 5.40
dissipation (AFM) 5.41
distortion, feedback-induced 5.48
distortion, flexing-induced 5.51
dither 5.42
DMT 4.3
double barrelled micropipette 7.6
double barrelled nanopipette 7.7
drift, thermal 5.157
dual AC mode (AFM) 7.8
dual intermittent contact mode (AFM) 7.8
dynamic-force microscopy (AFM) 3.6
dynamic friction 5.61
dynamic-mode AFM (AFM) 3.6

e

EC-AFM (AFM) 3.8
EC-SPM 6.5
EC-STM (STM) 3.10
EFM (AFM) 3.7
elastic tunnelling 5.43
electric-force microscopy (AFM) (deprecated) 3.7
electrochemical atomic-force microscopy (AFM) 3.8
electrochemical scanning-probe microscopy 6.5
electrochemical scanning tunnelling microscopy 3.9
electron, ballistic 5.8
electrostatic force 5.44
electrostatic-force microscopy (AFM) 3.7
energy, interfacial 5.72
energy, surface 5.150
enhancement factor (TERS) 7.9
erosion (AFM) 5.45
etched tip 5.46
evanescent wave 5.47

F
F-d curve 7.10
far-field diffraction limit (NSOM, SNOM) 5.1
feedback-induced distortion 5.48
FM 3.11
Fischer pattern (NSOM, SNOM) 5.49
Fischer projection pattern (NSOM, SNOM) 5.49
flatness 5.50
flexing-induced distortion 5.51
fluorescence (NSOM, SNOM) 5.52
fluorescence quenching (NSOM, SNOM) 5.53
fluorescence resonant energy transfer (NSOM, SNOM) 5.54
fluorescent labelling 5.55
fluorescent tagging 5.55
fluorophore 7.11
FM-AFM 3.10
FM-AM method (EFM) 7.12
FM detection (AFM) 5.60
FM-KPFM 6.6
force, capillary 5.22
force, chemical 5.25
force constant (AFM) 5.92
force-deflection curve (AFM) (deprecated) 5.56
force-displacement curve (AFM) 5.56
force-distance curve (AFM) 5.56
force, electrostatic 5.44
force-extension curve (AFM) (deprecated) 5.56
force, friction (AFM) 5.62
force, lateral (AFM) 5.77
force, magnetic 5.80
force, meniscus 5.81
force, normal (AFM) 5.91
force, patch charge 5.95
force, piezo (AFM) 5.99
force, piezoelectric 5.100
force, pull-in 5.123
force pulling 5.82
force, pull-off 5.124
force, pull-on 5.123
force sensor 5.57
force spectroscopy 5.58
force-volume mode (AFM) 5.59
four-point probe 7.13
four-tip STM 7.14
frequency modulation atomic-force microscopy 3.10
frequency modulation detection (AFM) 5.60
frequency modulation Kelvin-probe microscopy 6.6
FRET (NSOM, SNOM) 5.54
friction, dynamic 5.61
friction force (AFM) 5.62
frictional-force microscopy 3.11
friction, static 5.63
FS 5.58
functionalized probe 5.64
functionalized tip 5.64

G
Green's function STM 7.15

H
half tip angle (of an AFM probe) (deprecated) 5.70
height tracking mode 5.65
Hertzian model 4.4
Hertzian contact 5.66
heterodyne detection 7.16
Hopping probe ion conductance microscopy 6.7
HPICM 6.7

I
ideal profile 7.17
IETS 6.8
illumination mode (NSOM, SNOM) 5.67
illumination-collection mode (NSOM, SNOM) 5.68
image 5.69
included half-angle (of an AFM probe) 5.70
inelastic tunneling (STM) 5.71
inelastic electron tunneling spectroscopy 6.8
interfacial energy 5.72
intermittent contact mode 5.73
I-V spectroscopy (STM) 5.74
I-Z spectroscopy (STM) 5.75

J
JKR(S) model 4.5
Johnson-Kendall-Roberts (-Sperling) model 4.5
jump to contact (deprecated) 5.144

K
Kelvin probe 5.76
Kelvin-probe force microscopy 3.12
KFM (deprecated) 3.12
KPFM 3.12

L
labelling, fluorescent 5.55
lateral force (AFM) 5.77
lateral-force microscopy 3.13
lateral PFM 7.18
lateral spring constant 5.78
LFM 3.13
lift mode 7.19
linker molecule 5.79
local barrier height 5.10

M
MAC mode (AFM) (deprecated) 3.14
magnetic AC mode (AFM) (deprecated) 3.14
magnetic dynamic-force microscopy (AFM) 3.14
magnetic force 5.80
magnetic-force microscopy 3.15
magnetic-resonance force microscopy (AFM) 3.16
map 5.69
material, piezoelectric 5.101
Maugis model 4.6
Maugis-Dugdale model 4.6
MDFM (AFM) 3.14
measured profile 7.20
meniscus force 5.81
metrological scanning probe microscopy 6.9
metrological SPM 6.9
micro cantilever 5.20
MFM 3.15
molecular pulling 5.82
MRFM (AFM) 3.13
multi-frequency mode 5.83
multi-probe SPM 7.21
N
NA (NSOM, SNOM) 5.93
nano-antenna (NSOM, SNOM) 5.84
nano-impedance spectroscopy 6.10
nanoindentation 5.85
nanolithography 7.22
nanomechanics 5.86
nanoparticle 5.87
nanotweezers 7.23
NC-AFM 3.18
near field (NSOM, SNOM) 5.88
near-field Raman microscopy (NSOM, SNOM) 5.89
near-field scanning optical microscopy 3.17
NIS 6.7
non-contact atomic-force microscopy 3.18
non-contact mode (AFM) 5.90
normal force (AFM) 5.91
normal spring constant (AFM) 5.92
NSOM 3.17
numerical aperture (NSOM, SNOM) 5.93
O
optical resolution (NSOM, SNOM) 5.94
P
patch charge force 5.95
PFM 6.11
PFM phase 7.24
phase contrast (AFM) 5.96
phase imaging 5.97
photobleaching 5.98
photothermal microspectroscopy 3.19
piezo force (AFM) 5.99
piezoelectric force 5.100
piezoresponse force microscopy 6.11
piezoelectric material 5.101
piezoelectric sensor (cantilever) 5.102
piezoresistive 5.103
piezoresistive cantilever 5.104
pile-up 5.105
pitch 5.106
planar subtraction mode 5.107
polarization 5.108
polarization NSOM/SNOM 6.12
probe 5.109
probe apex 5.120
probe assembly 5.20
probe, carbon nanotube 5.23
probe characterizer 5.110
probe chip (deprecated) 5.26
probe, composite 5.30
probe flank 5.111
probe, functionalized 5.64
probe, Kelvin 5.76
probe lateral stiffness (deprecated) 5.78
probe length 5.112
probe shank 5.113
probe stiffness 5.114
probe support 5.115
probe support flank 5.116
probe support length 5.117
probe support shank 5.118
probe tilt angle 5.119
probe tip 5.120
probe tip (generated by an etching process) 5.46
probe, tilt-compensated (AFM) 5.158
protein unfolding 5.121
PTMS 3.19
pulled tip 5.122
pull-in force 5.123
pull-off force 5.124
pull-on force 5.123
pulsed-force mode 5.125
Q
Q 5.127
Q-control 5.126
quality factor 5.127
R
Raman effect (NSOM, SNOM) 5.128
Raman microscopy, apertureless (NSOM, SNOM) 3.1
Raman microscopy, near-field (NSOM, SNOM) 5.89
Raman scattering, surface-enhanced 5.151
Raman scattering, surface-enhanced resonant 5.153
Raman spectroscopy (NSOM, SNOM) 5.129
Raman spectroscopy, surface-enhanced 5.152
Raman spectroscopy, surface-enhanced resonant 5.154
raster scanning (SPM) 5.130
Rayleigh criterion (NSOM, SNOM) 5.131
reconstruction (AFM) 5.132
reconstruction, blind 5.15
reflection mode (NSOM, SNOM) 5.133
reflex side, cantilever (deprecated) 5.21
resolution, optical (NSOM, SNOM) 5.94
resonance frequency 5.134
roughness 7.25
Rq 7.24
S
sample bias 5.135
scanner 5.136
scanner creep 5.137
scanner hysteresis 5.138
scanner, closed-loop 5.28
scanning capacitance microscopy 3.20
scanning capacitance force microscopy 6.13
scanning chemical-potential microscopy 3.21
scanning electrochemical microscopy 3.22
scanning electrochemical microscopy - scanning ion conductance microscopy 6.14
scanning force microscopy (deprecated) 3.2
scanning gate microscopy 6.15
scanning Hall probe microscopy 3.23
scanning impedance microscopy 6.16
scanning ion conductance microscopy 3.24
scanning magneto-resistance microscopy 3.25
scanning Maxwell stress microscopy 3.26
scanning micropipette contact method 6.17
scanning near-field optical microscopy 3.17
scanning near-field thermal microscopy 3.27
scanning near-field ultrasound holography 3.28
scanning non-linear dielectric microscopy 3.29
scanning-probe microscopy 3.30
scanning rate 5.139
scanning spreading-resistance microscopy 3.31
scanning surface confocal microscopy 6.18
scanning surface potential microscopy 3.32
scanning thermal microscopy 3.33
scanning tunnelling hydrogen microscopy 6.19
scanning tunnelling microscopy 3.34
scanning tunnelling spectroscopy 3.35
scattering, anti-Stokes 5.4
scattering NSOM 3.36
scattering SNOM 3.36
SCFM 6.13
SCM 3.20
SCPM 3.21
SECMI 3.22
SEC-M-SICM 6.14
second harmonic generation 5.140
semi-vertical angle (of an AFM probe) (deprecated) 5.70
sensor (cantilever), piezoelectric 5.102
SERRS 5.153
SERRS 5.154
SERS 5.151
SERS 5.152
set point 5.141
SFM (deprecated) 3.2
SGM 6.15
shear force microscopy (AFM) 3.37
ShFM (AFM) 3.37
SHG 5.140
SHPM 3.23
SICM 3.24
SIM 6.16
sink-in 5.142
skin depth (NSOM, SNOM) 5.143
SMCM 6.17
SMRM 3.25
SMSM 3.26
snap-in 5.144
snap-on 5.144
SNDM 3.29
SNFUH 3.28
SNOM 3.17
s-NSOM 3.36
SNTM 3.27
soft lithography 5.145
spin-polarized scanning tunnelling microscopy (STM) 3.38
spin-polarized scanning tunnelling spectroscopy 3.39
spin-resolved tunnelling microscopy (STM) (deprecated) 3.38
SPM 3.30
spring constant (AFM) 5.92
spring constant, lateral 5.78
spring constant, normal (AFM) 5.92
spring constant, torsional (AFM) 5.166
SP-STM (STM) 3.38
SP-STS 3.39
SRTM (STM) (deprecated) 3.38
s-SNOM 3.36
SSCM 6.18
SS-PFM 6.20
SSPM 3.32
SSRM 3.31
static AFM (AFM) 3.40
static friction 5.63
static-mode AFM (AFM) 3.40
SThM 3.33
STHM (STM) 6.19
stiction 5.146
stiffness 5.147
STM 3.34
Stokes scattering 5.148
STS 3.35
stretching length 5.149
surface energy 5.150
surface-enhanced Raman scattering 5.151
surface-enhanced Raman spectroscopy 5.152
surface-enhanced resonant Raman scattering 5.153
surface-enhanced resonant Raman spectroscopy 5.154
surface patch charge 5.155
switching spectroscopy piezoresponse force microscopy 6.20

tip-enhanced fluorescence spectroscopy (NSOM, SNOM) 3.41
tip-enhanced Raman spectroscopy 3.42
tip enhancement (NSOM, SNOM) 5.160
tip, functionalized 5.64
tip radius (excluding s-SNOM) 5.161
tip radius (s-SNOM) 5.162
tip, etched 5.46
tip, functionalized 5.64
tip-sample contact radius 5.163
tip side (of a cantilever) 5.164
topographic contrast 5.165
topography tracking mode 5.65
torsional harmonic cantilever 7.26
torsional intermittent contact mode 7.27
torsional spring constant (AFM) 5.166
torsional tapping mode 7.27
transmittance 5.167
true profile 7.28
tuning fork detection 5.168
tunnelling 5.169
tunnelling barrier 5.12
tunnelling-barrier height 5.11

tunnelling-barrier width 5.13
tunnelling, elastic 5.43
tunnelling, inelastic (STM) 5.71
tunnelling probability 5.170

U
UFM (AFM) 3.43
ultrasonic force microscopy (AFM) 3.43

V
van der Waals force 5.171
vector PFM 6.21
vector scanning 5.172
vertical PFM 6.22

W
warp 5.173
Wollaston wire 5.174
work of adhesion 5.175
worm-like chain (polymers) 5.176