Index

a
Atomic force microscopy  8, 10, 43
Atomic freeze microscopy  280

b
Brookfield viscometer  80
Brownian motion  34, 129, 183, 198

c
Capillary forces  33, 36, 62
Catastrophic phase inversion  195, 196
Cellophane dialysis tube  79
Colloid mills  1, 72
Colloid vibration potential  9
Coulter counter method  77
Critical micelle concentrations  7, 39
Critical packing parameter  277
Cryovitrification  129

d
Dielectric spectroscopy technique  8
Differential scanning calorimetry  9, 131, 150, 238, 276
Dilatometry  9
Doppler shift spectroscopy  7
Dynamic high-pressure processing  203, 206

e
Electroacoustics  8, 9
Electrosonic amplitude  9
Emulsifying capacity  7
Emulsion-based paramagnetic colloid  10
Emulsion inversion point (EIP)  193, 195–197, 204, 208, 215
Emulsion stability index (ESI)  7

f
Fluid bed coating  121
Freeze-etching technique  77
Freeze-fracture  43, 129, 130


g
Gas-saturated solutions (PGSS)  127
Gastrointestinal tract  1, 14, 15, 18, 19, 30, 46, 93, 113, 114, 122, 140
Gel trapping technique (GTT)  43

h
Hand shaking method  268
Hemocytometer cells  78
High-speed cinemicrography  77

k
Kibron instruments  149

l
Laplace pressure  74
Laser diffraction  45, 129, 148
Laser Doppler anemometry  130
Lipid polymorphism  123
Lissajous plots  45

m
Magnetic resonance  8, 9, 79, 150, 155, 176, 238, 261
Microchannel homogenizers  1
Microcrystalline cellulose particles 38, 41
Monomeric surfactants 73
Multilamellar vesicles (MLVs) 265, 268, 269, 272–274, 280

\( n \)
- Negative staining 129, 130
- Neutron scattering 8, 21, 25, 76, 135, 238, 257

\( o \)
- Oscillatory 80, 166

\( p \)
- Particle anisotropy 33
- Particle wettability 31, 32, 36, 39, 41
- Phase inversion composition 193, 195, 224, 228
- Phase inversion temperature (PIT) 193–195, 202–204, 206, 228
- Photon correlation spectroscopy 7, 129, 136, 238
- Piezoelectric quartz crystals 186
- Piezoelectric transducer 186
- Polymeric surfactants 73, 101, 102
- Pulsed gradient spin echo nuclear magnetic resonance 238

\( r \)
- Reticuloendothelial system 124

\( s \)
- Scanning tunneling microscopy 280
- Small-angle neutron scattering 21, 25, 238
- Small angle X-ray scattering 76, 200, 238

- Smoluchowski equation/theory 81, 199
- Steady-state flow 80
- Steric exclusion 164
- Steric repulsive forces 113, 183
- Stimuli-dependent emulsion stability 35
- Stöber synthesis 40
- Stokes–Einstein equation 7, 199
- Stoke’s law 79
- Supercritical coinjection 127
- Supercritical fluid extraction 127
- Super resolution microscopy (iPAINT) 44, 56, 60, 63
- Supracolloidal structures 29

\( t \)
- Thermodynamic theory 234
- Thickening agents 4, 55, 74
- Thin film hydration method 263, 267–269, 271, 280
- Time-lapse cinematography 77
- Transitional phase inversion 195, 196
- Turbulence shock test 80

\( u \)
- Unilamellar vesicles 265

\( w \)
- Winsor classification 236, 237, 261, 262

\( x \)
- X-ray diffraction 131, 150

\( y \)
- Young–Laplace equation 42
- Young’s equation 31