

INDEX**Terminology**

ablation	13/1
ablator	13/2
abrasion	13/3
absolute compliance	8/5.18
absolute modulus	8/5.14
additive	9/1.30
adhering thread	7/4.9.3.1
adhesion	9/1.24
chemical adhesion	9/1.25
interfacial adhesion (tack)	9/1.26
adhesion promoter	9/1.37
adhesive strength	9/1.26
adjacent re-entry	6/4.8
aerosol hydrolysis	11/5.1
affine chain behaviour	11/4.2.1
agglomerate	9/1.42, 11/2.1, 11/2.2
agglomeration	9/1.41, 11/5.2, 11/5.3
aggregate	9/1.42, 11/2.3, 11/2.4
aggregation	9/1.41, 11/5.4, 11/5.5
aging	13/4
aqueous aging	13/4
biologically-induced aging	13/4
cosmic aging	13/4
gel aging	11/5.18
oxidative aging	13/4
photochemical aging	13/4
photo-oxidative aging	13/4
physical aging	13/4
thermal aging	13/4
thermo-oxidative aging	13/4
underground aging	13/4
alternating copolymer	1/2.11
alternating copolymerization	1/3.11
amphiphilic mesogen	7/2.11.1
amphitropic compound	7/2.4.4
ampholytic polymer (polyampholyte)	10/1
amphoteric polyelectrolyte	12/3.16
angle of observation	3/3.3.3
angular velocity (of a forced oscillation)	8/5.10
angular velocity of the resonance frequency	8/6.7
anion-exchange polymer	10/2
anionic polymer	10/3
anionic polymerization	1/3.19
anisotropy of physical properties	7/5.8
antagonism	13/5

anti-fatigue agent	13/6
antiferroelectric chiral smectic C mesophase	7/3.1.5.1.2
antimesophase	7/3.1.6.3
antioxidant	13/7
chain-breaking antioxidant	13/13
chain-terminating antioxidant	13/13
thermal antioxidant	13/7
photo-antioxidant	13/7
mechano-antioxidant	13/7
antiradiant	13/8
apparent molar mass	3/2.11
apparent molecular weight	3/2.11
apparent relative molecular mass	3/2.11
apparent viscosity	8/4.12
Archibald's method	3/3.2.15
ashing	13/9
asymmetric chirogenic polymerization	5/2
asymmetric liquid-crystal dimer	7/2.11.2.9
asymmetric helix-chirogenic polymerization	5/2
asymmetric enantiomer-differentiating polymerization	5/3
asymmetric polymerization	5/1
atactic block	2/1.20
atactic macromolecule	1/1.25
atactic polymer	1/2.21, 2/1.10
autoxidation	13/10
average degree of polymerization	3/2.12
Avrami equation	6/5.3
axialite	6/3.5
backbone	1/1.34, 15/2.5, 20/1.4
backflow	7/5.7
banana mesogen	7/2.11.2.10
banded texture (banded texture)	7/6.12
barotropic mesophase	7/2.4.2
Basic terms in polymer science	Ch. 1
molecules and molecular structure	Ch. 1, Sec. 1
substances	Ch. 1, Sec. 2
reactions	Ch. 1, Sec. 3
alphabetical index of terms	Ch. 1, Sec. 4
bâtonnet	7/4.10.1
bead-rod model	3/3.2.4
bead-spring model	3/3.2.5
bend deformation	7/5.2.2
biaxial mesophase	7/3.3
biaxial mesophase anisotropies	7/5.8.2
biaxial nematic mesophase (biaxial nematic)	7/3.3.1
biaxial smectic A mesophase	7/3.3.2
biforked mesogen	7/2.11.2.5
binodal (binodal curve)	9/2.6
biodegradable polymer	12/3.1
biodegradation	12/1.13, 13/11

bipolar droplet texture	7/4.9.1.1
bipolymer	1/2.5
bis-swallow-tailed mesogen	7/2.11.2.7
Blends, composites and multiphase polymeric materials	Ch. 9
basic terms in polymer mixtures	Ch. 9, Sec. 1
phase domain behaviour	Ch. 9, Sec. 2
domain morphologies	Ch. 9, Sec. 3
references	Ch. 9, Sec. 4
bibliography	Ch. 9, Sec. 5
alphabetical index of terms	Ch. 9, Sec. 6
block	1/1.62, 2/1.18
block copolymer	1/2.24
block macromolecule	1/1.26
block polymer	1/2.22
blooming	9/2.17
blue phase	7/3.1.4
board-shaped polymer	7/6.9
boojums	7/4.9.1.1
boundaries of Grandjean	7/4.10.4
bowlic mesogen	7/2.11.2.3
bowtie entanglement	11/4.2.3.1
branch (side-chain, pendant chain)	1/1.53, 20/1.6
branched chain	1/1.33, 20/1.3
branched polymer	1/2.34
branch point	1/1.54, 11/4.2.2, 20/1.8
branch unit	1/1.55, 20/1.7
branching index	3/1.25
brush macromolecule	1/1.52
bulk compliance	8/4.6
bulk compression	8/2.9
bulk compressive compliance	8/4.6
bulk compressive modulus	8/4.5
bulk compressive strain	8/2.9
bulk modulus (bulk compressive modulus)	8/4.5
bulk substance	9/3.12
butterfly entanglement	11/4.2.3.2
calamitic mesogen	7/2.11.2.1
calamitic mesophases	7/3.1
calcination (in polymer networks)	11/5.6
carbonization	13/12
carbo-reduction	11/5.7
cation-exchange polymer	10/4
cationic polymer	10/5
cationic polymerization	1/3.20
Cauchy tensor	8/1.8, 8/1.9
centered rectangular mesophase	7/3.1.6.3
ceramer	11/4.1.1
ceramic	11/4.1.2
ceramic-precursor	11/4.1.3
ceramic-reinforced polymer	11/4.1.4

ceramic yield	11/4.1.5
ceramization	11/5.8
chain	1/1.30, 20/1.1
chain axis	6/2.1
chain conformational repeating unit	6/2.3
chain entanglement	11/4.2.3
chain folding	6/4.3
(chain) identity period	6/2.2
chain-orientational disorder	6/2.10.2
chain polymerization	1/3.6, 4/1
(chain) repeating distance	6/2.2
chain scission	1/3.24
characteristic ratio	3/1.13
chelating polymer	12/2.1
chemical amplification	12/1.1
chemical functionality	11/2.5
chemical modification	12/1.2
chiral columnar oblique mesophase	7/3.2.2.3
chiral nematic mesophase (chiral nematic)	7/3.1.3
chiral nematogen	7/2.11
chiral smectic C mesophase	7/3.1.5.1.3
chiral smectic F mesophase	7/3.1.5.2.2
chiral smectic I mesophase	7/3.1.5.2.3
cholesteric mesophase (cholesteric)	7/3.1.3
cis-tactic polymer	2/1.16
class of helix	6/2.8
clearing point	7/2.6
clearing temperature	7/2.6
cloud point	9/2.9
cloud-point curve	9/2.10
cloud-point temperature	9/2.11
coagulation	11/5.9
coalescence	9/2.18
co-continuous phase domains	9/3.14
coefficient of viscosity	8/4.12
coexistence curve	9/2.6
coherent elastic scattering of radiation	3/3.3
colloid	11/2.6
colloidal	11/2.7
colloidal dispersion	11/2.8
colloidal processing	11/5.10
colloidal sol	11/2.9
colloidal suspension	11/2.10
columnar discotic mesophase (columnar discotic)	7/3.2.2
columnar hexagonal mesophase	7/3.2.2.1
columnar mesophase	7/3.2.2
columnar oblique mesophase	7/3.2.2.3
columnar rectangular mesophase	7/3.2.2.2
comb macromolecule	1/1.52, 20/1.13
comb polymer	1/2.33

combined liquid-crystalline polymer	7/6.6
comb-shaped (comb-like) polymer liquid-crystal	7/6.3
comb-shaped mesogen	7/2.11.2.3
compatibility	9/1.32
compatibilization	9/1.33
compatibilizer	9/1.36
complex compliance	8/5.19
complex modulus	8/5.15
complex rate of strain	8/5.22
complex strain	8/5.15, 8/5.19
complex stress	8/5.15, 8/5.19, 8/5.22
complex viscosity	8/5.22
compliance	8/4.4
composite	9/1.13, 11/4.1.6
polymer composite	9/1.14
nanocomposite	9/1.15, 11/4.1.20
compositional heterogeneity	3/2.1
compression ratio	8/2.3
compressive strain	8/2.4
compressive stress	8/3.3
condensation reaction	11/5.11
condensative chain polymerization	1/3.6, 4/1
conducting polymer	12/3.2
conducting polymer composite	
(solid polymer-electrolyte composite)	10/6, 12/3.2
ion-conducting polymer	12/3.2
photoconductive polymer	12/3.2
proton-conducting polymer	12/3.2
semiconducting polymer	12/3.2
configurational base unit	1/1.17, 2/1.2
configurational disorder	6/2.10.3
configurational homosequence	2/2.1.5
configurational repeating unit	1/1.18, 2/1.3
configurational sequence	1/1.64, 2/2.1.3
configurational unit	1/1.16, 2/1.1
conformational disorder	6/2.10.4
conformational repeating unit of a chain	6/2.3
conical mesogen	7/2.11.2.3
connectivity	11/2.11
constitutional heterogeneity	3/2.2
constitutional homosequence	2/2.1.2
constitutional repeating unit	1/1.15, 15/2.4, 16/2.3
constitutional sequence	1/1.63, 2/2.1.1
constitutional unit	1/1.14, 15/2.3, 16/2.2
constitutive equation for an elastic solid	8/4.1
constitutive equation for an incompressible viscoelastic	
liquid or solid	8/4.2
continuous distribution function	3/2.1.3
continuously curved chain	3/1.21
continuous phase domain	9/3.12

INDEX - Terminology

contour length	3/1.14
controlled-degradable polymer	13/20
co-oligomer	1/2.7
co-oligomerization	1/3.5
copolymer	1/2.11
copolymerization	1/3.4
copolymer micelle	3/1.28
core-shell morphology	9/3.15
co-solvency	3/3.1.15
coupling agent	9/1.37
covalent network	1/1.58, 11/4.1.21.3.3
cracking	13/14
chemical cracking	13/14
environmental stress cracking	13/19
oxidative cracking	13/14
ozone cracking	13/14
radiation cracking	13/14
solvent cracking	13/14
UV cracking	13/14
craze	9/1.29
crazing	13/15
creep	8/5.9, 11/4.1.7
creep compliance	8/5.9
creep function	8/5.9
critical concentration	11/5.11
critical ion-concentration in an ionomer	10/7
critical point	9/2.12
crosslink	1/1.59, 11/4.2.4, 20/1.9
permanent crosslink	11/4.2.4.1
transient crosslink	11/4.2.4.2
crosslink density	11/4.2.5
crosslinking	11/5.12, 12/1.3
crosslinking site	11/4.2.6
cross-over concentration	3/3.1.2
cross-section	3/3.3.7
cruciform polymer liquid-crystal	7/6.2
crystal B, E, G, H, J and K mesophases	7/3.1.5.3
crystalline polymer	6/1.2
Crystalline polymers	Ch. 6
general definitions	Ch. 6, Sec. 1
local conformation and structural aspects	Ch. 6, Sec. 2
morphological aspects	Ch. 6, Sec. 3
molecular conformation within polymer crystals	Ch. 6, Sec. 4
crystallization kinetics	Ch. 6, Sec. 5
crystallinity	6/1.1
cubic mesophase	7/3.1.9
curing	11/5.13, 12/1.4
electron-beam curing (EB curing)	11/5.13.2, 11/5.13.1, 12/1.4
photochemical curing (photo-curing)	11/5.13.3, 11/5.13.4,

thermal curing	12/1.4
cumulative distribution function	11/5.13.5, 12/1.4
cybotactic groups	3/2.13
cyclization, polymer	7/3.1.2
cyclopolymerization	12/1.12
cylindrical morphology	1/3.23
damping curve	9/3.16
dashpot constant	8/6.2
decad	8/5.3, 8/5.4
decay constant	1/1.63, 1/1.64
decay frequency	8/6.3
decay time	8/6.4
defect (in liquid-crystalline polymers)	7/5.21
deflocculation	7/4.7
deformation gradients in an elastic solid	11/5.14
deformation gradients in a viscoelastic liquid or solid	8/1.3
deformation gradient in the orthogonal deformation of an elastic solid	8/1.6
deformation gradient tensor for an elastic solid	8/2.1
deformation gradient tensor for a viscoelastic liquid or solid	8/1.4
deformation of an elastic solid	8/1.7
deformation of a viscoelastic liquid or a solid	8/1.3
deformation ratio	8/1.5
deformation ratio in the orthogonal deformation of an elastic solid	8/2.3
degradation (polymer degradation)	8/2.1
biodegradation	12/1.13, 13/16
oxidative degradation	12/1.13, 13/11
photodegradation	13/16
photo-oxidative degradation	13/16
thermal degradation	13/16
thermochemical degradation	13/16
thermo-oxidative degradation	13/16
Degradation, aging, and related chemical transformations of polymers	Ch. 13
introduction	
terms	
reference	
alphabetical index of terms	
degree of compatibility	9/1.34
degree of crystallinity	2/4.3, 6/1.3
degree of incompatibility	9/1.34
degree of polymerization	1/1.13, 3/1.3
average degree of polymerization	3/2.12
degree of ripening	9/1.20
degrees of cistacticity and transtacticity	2/4.2
degrees of triad isotacticity, syndiotacticity and heterotacticity	2/4.1
delamination	9/1.18

INDEX - Terminology

denaturation	13/17
dendrite	6/3.6
densification	11/5.15
depolarization of scattered light	3/3.3.15
depolymerization	1/3.25, 12/1.5
diad	1/1.63, 1/1.64
differential distribution function	3/2.13
diisotactic polymer	2/1.14
dilute phase (polymer-poor phase)	3/3.4.2
dilute solution	3/3.1.1
director	7/3.1.1.1
disc-like mesogens (discotic mesophases, discotics)	7/3.2
disclination	7/4.7.2
disclination strength	7/4.9.2.2
discontinuous phase domain	9/3.13
discotic mesogen (discoid mesogen)	7/2.11.2.2
discotic nematic mesophase (discotic nematic)	7/3.2.1
discrete distribution function	3/2.13
discrete phase domain	9/3.13
dislocation	7/4.7.1
dispersed phase domain	9/3.13
dispersing agent (dispersing aid, dispersant)	9/1.40
dispersion	9/1.39
disruptor	7/6.5
dissymmetry of scattering	3/3.3.14
distortion in liquid crystals	7/5.2
distribution function	3/2.13
disyndiotactic polymer	2/1.15
ditactic polymer	2/1.12
divergence temperature	7/2.9
domain	7/4.1
domain boundary	9/3.4
domain interface	9/3.4
domain structure	9/3.5
dopant	10/8
doping	10/9
double-strand chain	1/1.40
double-strand copolymer	1/2.31
double-strand macromolecule	1/1.41
double-strand polymer	1/2.30, 16/2.6
drying control chemical additive	11/3.2
dual phase domain continuity	9/3.14
durability	13/18
dynamic-scattering mode	7/5.15
dynamic strain	8/5.1
dynamic stress	8/5.1
dynamic viscosity	8/5.20
elastic constants (elasticity moduli)	7/5.3
elastic modulus (modulus of elasticity)	8/4.3
elastically active network chain	11/4.2.7

elastomer	11/4.1.8
electrically conducting polymer	10/10
electroclinic effect	7/5.11
electrohydrodynamic instabilities	7/5.13
electroluminescent polymer	12/3.3
electron-exchange polymer	12/2.12
electro-optical polymer	12/3.10
elongational strain rate	8/2.12
elongational viscosity	8/4.9
elution volume	3/3.4.8
enantiotropic mesophase	7/2.4.1
end-group	1/1.35, 15/2.6
end-on fixed side-group polymer liquid-crystal	7/6.3
end-to-end distance	3/1.11
end-to-end vector	3/1.10
engineering strain	8/2.4
engineering stress	8/3.4
environmental stress cracking	13/19
environmentally degradable polymer	13/20
equilibrium sedimentation in a density gradient	3/3.2.16
equilibrium sedimentation (method)	3/3.2.13
equivalence postulate	6/2.5
equivalent chain	3/1.17
equivalent sphere	
thermodynamically equivalent sphere	3/1.4
hydrodynamically equivalent sphere	3/3.2.2
even-membered liquid-crystal dimer	7/2.11.2.9
excess scattering	3/3.3.8
excluded volume of a macromolecule	3/3.1.9
excluded volume of a segment	3/3.1.8
exfoliation	9/1.22, 11/5.16
expansion factor	3/3.1.10
extended-chain crystal	6/4.13
extender	9/1.43
extensional strain rate	8/2.12
extensional viscosity	8/4.9
extension ratio	8/2.3
extraction fractionation	3/3.4.5
fall time	7/5.22
fatigue	13/21
ferroelectric effects	7/5.9
ferroelectric polymer	12/3.4
ferromagnetic polymer	12/3.5
f -functional branch point	1/1.54, 11/4.2.2.1
f -functional branch unit	1/1.55
fibrillar morphology	9/3.17
fibrous crystal	6/3.7
fill factor	9/1.45
filler	9/1.44
Finger tensor	8/1.8, 8/1.11

INDEX - Terminology

fire retardancy (flame retardancy)	13/22
fire retardant (flame retardant)	13/22
first normal-stress coefficient	8/4.13
first normal-stress difference (first normal-stress function)	8/3.6
flexo-electric domain	7/5.17
flexo-electric effect	7/5.16
flexural deflection	8/6.9
flexural force	8/6.8
flexural modulus	8/6.10
flexural stress	8/6.8
flocculation	11/5.17
Flory constant	3/3.2.24
Flory distribution	3/2.17
Flory-Huggins theory (Flory-Huggins-Staverman theory)	3/3.1.11, 9/2.3
flow birefringence	3/3.2.9
focal-conic domain	7/4.10.2
focal-conic, fan-shaped texture	7/4.10.4
fold	6/4.4
fold domain	6/4.7
folded-chain crystal	6/4.11
fold plane	6/4.5
fold surface	6/4.6
forced flexural oscillation	8/6.7
forced oscillation	8/5.10
forced uniaxial extensional oscillation	8/6.6, 8/6.7
forked hemiphasmidic mesogen	7/2.11.2.5
fractal agglomerate	11/4.1.9
fractal dimension	11/4.1.10
fractionation	3/3.4.1
Frank constants	7/5.3
free oscillation	8/6.1
Fréedericksz transition	7/5.10
freely draining	3/3.2.6
freely jointed chain	3/1.16
freely rotating chain	3/1.19
free oscillation	8/6.1
frictional coefficient	3/3.2.1
friction coefficients (rotational viscosity coefficients)	7/5.6
fringed-micelle model	6/4.10
functional polymer	12/3.6
functionality (of a monomer)	11/2.12
fused twin mesogen	7/2.11.2.9
gel	11/3.1
aerogel	11/3.1.1
alcogel	11/3.1.2
aquagel	11/3.1.3
colloidal gel	11/3.1.4
humming gel	11/3.1.7
hydrogel	11/3.1.8
microgel (gel microparticle)	3/1.27, 11/3.1.9, 11/3.1.5

nanogel (gel nanoparticle)	11/3.1.10,11/3.1.6
neutralized gel	11/3.1.11
particulate gel	11/3.1.12
polyelectrolyte gel	11/3.1.13
polymer gel	11/3.1.14
responsive gel	11/3.1.15
rheopexic gel	11/3.1.16
rheotropic gel	11/3.1.17
ringing gel	11/3.1.18
sonogel	11/3.1.19
thermoreversible gel	11/3.1.20
thixotropic gel	11/3.1.21
xerogel	11/3.1.22
gel fraction	11/4.1.11
gel point (gelation point)	11/3.3, 11/3.6
gel time (gelation time)	11/3.5, 11/3.8
gelation	11/5.19
gelation temperature (gel temperature)	11/3.7, 11/3.4
gel-permeation chromatography	3/3.4.6
general homogeneous deformation or flow of a viscoelastic liquid or solid	8/2.10
general homogeneous deformation of a elastic solid	8/2.10
geometrical equivalence	6/2.4
glassy mesophase	7/3.5
globular-chain crystal	6/4.14
graft copolymer	1/2.25
graft macromolecule	1/1.28
graft polymer	1/2.23
grafting	12/1.6
green body	11/4.1.12
Green tensor	8/1.8, 8/1.10
guest-host effect	7/5.23
guest polymer	9/3.13
Guinier plot	3/3.3.12
halatopolymer	10/11
halato-telechelic polymer	10/12
hard-segment phase domain	9/3.9
Hausdorff dimension	11/4.1.13
heat endurance	13/23
height equivalent to a theoretical plate	3/3.4.13
helix	6/2.6
helix residue	6/2.7
hemiphasmidic mesogens	7/2.11.2.5
Hencky strain	8/2.5
heptad	1/1.63, 1/1.64
hexad	1/1.63, 1/1.64
hexatic smectic mesophase	7/3.1.5.2
hipping	11/5.20
homeotropic alignment	7/4.3
homogeneous alignment	7/4.4

INDEX - Terminology

homogeneous deformation of an elastic solid	8/1.3
homogeneous deformation of a viscoelastic liquid or solid	8/1.5
homogeneous orthogonal deformation or flow of an incompressible viscoelastic liquid or solid	8/2.11
homogeneous polymer blend	9/1.3
homogeneous simple shear deformation or flow an incompressible viscoelastic liquid or solid	8/2.13
homopolymer	1/2.4
homopolymerization	1/3.3
host polymer	9/3.12
hot isostatic pressing	11/5.21
Huggins coefficient	3/3.2.23
Huggins equation	3/3.2.22
hybrid material	11/4.1.14
chemically bonded hybrid (material)	11/4.1.14.1
clay hybrid	11/4.1.14.2
polymer-clay composite	11/4.1.14.4
polymer-clay hybrid	11/4.1.14.5
hybrid polymer	11/4.1.14.3
hydrodynamic volume	3/3.2.3
hydrodynamically equivalent sphere	3/3.2.2
hydrolysis ratio	11/5.22
hydrolytic scission	12/1.8
hyperbranched polymer liquid-crystal	7/6.11
(chain) identity period ((chain) repeating distance)	6/2.2
immiscibility	9/1.11
impact-modified polymer	12/3.7
impregnation	9/1.19
induced mesophase	7/3.1.8
infinite-shear viscosity	8/4.12
inherent viscosity	3/3.2.20
inhibitor	13/24
inhomogeneous deformation of elastic solids	8/1.3
inorganic-organic polymer	11/4.1.15
inorganic polymer	11/4.1.15.1
insertion reaction	11/5.23
<i>in-situ</i> composite formation	11/5.24
integral distribution function	3/2.13
intercalated smectic mesophase	7/3.1.7
intercalation	9/1.21
intercalation reaction	11/5.23
interchange reaction	12/1.7
interdiffusion	9/2.16
interfacial agent	9/1.31
interfacial bonding	9/1.27
interfacial energy	9/1.26
interfacial fracture	9/1.28
interfacial region	9/3.6
interfacial-region thickness	9/3.8
interfacial tension	9/1.26

interfacial width	9/3.8
inter-junction molar mass	11/4.2.8
interphase	9/3.6
interphase elasticity	9/3.7
interphase thickness	9/3.8
intrinsically conducting polymer	10/13
intrinsic viscosity (limiting viscosity number, Staudinger index)	3/3.2.21
inverse hexagonal mesophase	7/3.2.2.1
inverse lamellar mesophase	7/3.1.5.1.1
ionene	10/15
ion-exchange membrane	10/16, 12/2.2
ion-exchange polymer	10/17, 12/2.2
ionic aggregates in an ionomer	10/18
ionic copolymerization	1/3.18
ionic polymer (ion-containing polymer)	10/19
ionic polymerization	1/3.17
ionomer	1/2.39, 10/20
ionomer cluster	10/21
ionomer molecule	1/1.66
ionomer multiplet	10/22
irregular macromolecule	1/1.5
irregular polymer	1/2.16
isopycnic	3/3.1.17
isorefractive	3/3.3.17
isostatic pressing	11/5.25
isotactic macromolecule	1/1.23
isotactic polymer	1/2.18
isotropic compression	8/2.9
isotropization temperature	7/2.6
junction point	1/1.54, 11/4.2.9
thermoreversible junction point	11/4.2.9.1
transient junction point	11/4.2.9.2
junction point density	11/4.2.10
junction unit	1/1.27
Kapustin domains	7/5.14
Kratky plot	3/3.3.13
Kuhn-Mark-Houwink-Sakurada equation	3/3.25
ladder chain	1/1.44
ladder macromolecule	1/1.45
ladder polymer	1/2.30
lamellar crystal	6/3.1
lamellar domain morphology	9/3.17
lamellar mesophase	7/3.1.5.1.1
lamina	9/1.16
laminated	9/1.16
lamination	9/1.17
large particle	3/3.3.2
lateral contraction ratio	8/2.6
lateral order	2/4.4

INDEX - Terminology

lateral strain	8/2.6
laterally branched mesogen	7/2.11.2.8
lath crystal	6/3.2
lattice distortion	6/2.10.1
length of the scattering vector	3/3.3.5
Leslie-Ericksen coefficients	7/5.4
lifetime	13/25
ligated twin mesogen	7/2.11.2.9
linear chain	1/1.32, 20/1.2
linear copolymer	1/2.28
linear macromolecule	1/1.6
linear polymer	1/2.27
linear viscoelastic behaviour	8/5.2
line repetition groups	6/2.9
liquid crystal	7/2.3
liquid-crystal dendrimer (dendrimeric liquid crystal, dendritic liquid crystal)	7/6.10
liquid-crystal dimer	7/2.11.2.9
liquid-crystal oligomer	7/2.11.2.9
liquid-crystalline phase	7/2.2.1
liquid-crystal polymer (polymer liquid-crystal, liquid- crystalline polymer)	7/6.1
Liquid crystals (low-molar-mass and polymer)	Ch. 7
preamble	Ch. 7, Sec. 1
general definitions	Ch. 7, Sec. 2
types of mesophase	Ch. 7, Sec. 3
textures and defects	Ch. 7, Sec. 4
physical characteristics of liquid crystals	Ch. 7, Sec. 5
liquid-crystal polymers	Ch. 7, Sec. 6
references	Ch. 7, Sec. 7
alphabetical index of terms	Ch. 7, Sec. 8
glossary of recommended abbreviations and symbols	Ch. 7, Sec. 9
liquid-crystal state (liquid crystalline state)	7/2.2
liquid-crystalline phase	7/2.2.1
living copolymerization	1/3.22
living polymer	12/2.3
living polymerization	1/3.21
local conformation	6/1.8.
logarithmic decrement	8/6.5
logarithmic normal distribution	3/2.20
logarithmic viscosity number	3/3.2.20
long chain	1/1.36
long-chain branch	1/1.53, 3/1.24
longitudinal order	2/4.5
long-range intramolecular interaction (long-range interaction)	3/1.6
long spacing	6/3.4
loose end	1/1.61, 11/4.2.11
loss angle of a forced oscillation	8/5.10
loss compliance	8/5.17
loss curve	8/5.11

loss factor	8/5.11
loss modulus	8/5.13
loss tangent	8/5.11
lower critical solution temperature	9/2.13
lyotropic liquid-crystalline polymer	12/3.8
lyotropic mesophase	7/2.4.3
macrocycle	1/1.57, 20/1.12
macrodispersion	9/1.39
macromolecular	1/1.1
macromolecular isomorphism	6/2.10.5
macromolecule	1/1.1
Macromolecules and dilute polymer solutions	Ch. 3
individual macromolecules	Ch. 3, Sec. 1
assemblies of macromolecules	Ch. 3, Sec. 2
dilute polymer solutions	Ch. 3, Sec. 3
macromonomer	1/2.35, 12/2.4
macromonomer molecule	1/1.9
macromonomeric unit (macromonomer unit)	1/1.12
macroporous-bead polymer support	12/3.23
macroporous polymer	12/3.9
macroradical	1/1.10
magnetic mesophase anisotropy	7/5.8.1
main chain	1/1.34, 15/2.5, 20/1.4
main-chain scission	12/1.8
main-chain polymer liquid crystal (main-chain liquid-crystalline polymer)	7/6.2
major biaxial mesophase anisotropy	7/5.8.2
marbled texture	7/4.9.4
Mark-Houwink equation	3/3.2.25
mass-average degree of polymerization	3/2.12
mass-average molar mass	3/2.7
mass-average relative molecular mass	3/2.7
mass-distribution function (weight-distribution function)	3/2.15
mass fractal dimension	11/4.1.16
matrix phase domain (matrix)	9/3.12
Maxwell element	8/5.3
Maxwell model	8/5.3
(Non-ultimate) Mechanical properties of polymers	Ch. 8
basic definitions	Ch. 8, Sec. 1
deformations used experimentally	Ch. 8, Sec. 2
stresses observed experimentally	Ch. 8, Sec. 3
quantities relating stress and deformation	Ch. 8, Sec. 4
linear viscoelastic behaviour	Ch. 8, Sec. 5
oscillatory deformations and stresses used experimentally	
for solids	Ch. 8, Sec. 6
references	Ch. 8, Sec. 7
alphabetical index of terms	Ch. 8, Sec. 8
glossary of symbols	Ch. 8, Sec. 9
mechanochemical reaction	12/1.9
mechanochemical scission	12/1.8

INDEX - Terminology

melted-grain boundary mesophase	7/3.6.3
mer	1/1.8
mesogen	7/2.11
mesogenic compound	7/2.11
mesogenic dimer	7/2.11.2.9
mesogenic group (mesogenic unit, mesogenic moiety)	7/2.10
mesogenic monomer	1/2.36
mesogenic oligomer	7/2.11.2.9
mesomorphic compound	7/2.1, 7/2.11
mesomorphic glass	7/2.1
mesomorphic state (mesomorphous state)	7/2.1
mesophase	7/2.4
mesophases of calamitic mesogens	7/3.1
mesophases of disc-like mesogens	7/3.2
mesoporous polymer	12/3.9
metal deactivator	13/26
metallomesogen	7/2.11.3
metastable miscibility	9/1.7
microdispersion	9/1.39
microdomain morphology	9/3.19
Mie scattering	3/3.3.18
Miesowicz coefficient	7/5.5
miscibility	9/1.2
metastable miscibility	9/1.7
miscibility gap	9/2.2
miscibility window	9/2.1
mixed ceramic	11/4.1.17
<i>m,n</i> -polycatenary mesogen	7/2.11.2.5
modulated smectic mesophase	7/3.1.6.3
modulus	8/4.3
molal refractive index increment	3/3.3.6
molar mass	3/1.2
molar-mass average	3/2.5
molar-mass exclusion limit	3/3.4.7
molecular conformation	6/1.7
molecular nucleation	6/5.2
molecular weight	3/1.1
molecular-weight average	3/2.5
molecular-weight exclusion limit	3/3.4.7
monodisperse polymer	1/2.13, 3/2.3
monodomain	7/4.2
monolith	11/4.1.18
monomer	1/2.1
monomer molecule	1/1.3
monomeric unit (monomer unit, mer)	1/1.8
monotropic mesophase	7/2.4.5
morphology	9/3.1
morphology coarsening (phase ripening)	9/2.19
most probable distribution (Schulz-Flory distribution, Flory distribution)	3/2.17

multicoat morphology	9/3.23
multilayer aggregate	6/3.3
multiphase copolymer	9/3.3, 11/4.1.19
multiple inclusion morphology	9/3.25
multi-strand chain	1/1.46
multi-strand macromolecule	1/1.47
nanodomain morphology	9/3.20
nematic	7/3.1.1
nematic droplet	7/4.9.1
nematic textures	7/4.9
nematogen	7/2.11
net shaping	11/5.26
network	1/1.58,11/4.1.21, 20/1.10
bimodal network (bimodal polymer network)	11/4.1.21.3.1, 11/4.1.21.3.2
colloidal network	11/4.1.21.1
covalent network (covalent polymer network)	1/1.58,11/4.1.21.3.3, 11/4.1.21.3.4
entanglement network	11/4.1.21.3.5
interpenetrating polymer network	1/2.43, 9/1.9, 11/4.1.21.3.6, 20/1.18
sequential interpenetrating polymer network	9/1.9,11/4.1.21.3.6.1
simultaneous interpenetrating polymer network	9/1.9,11/4.1.21.3.6.2
micronetwork	1/1.60,11/4.1.21.3.7, 20/1.11
model network	11/4.1.21.3.8
oxide network	11/4.1.21.3.9
perfect network (perfect polymer network)	11/4.1.21.3.10, 11/4.1.21.3.11
physical network	1/1.58,11/4.1.21.3.12
polymer network (network polymer)	1/2.41, 11/4.1.21.3, 11/4.1.21.2, 20/1.17
reversible network	11/4.1.21.3.13
semi-interpenetrating polymer network	1/2.42, 9/1.10, 11/4.1.21.3.14, 20/1.16
sequential semi-interpenetrating polymer network	9/1.10,11/4.1.21.3.14.1
simultaneous semi-interpenetrating polymer network	9/1.10,11/4.1.21.3.14.2
thermoreversible network	11/4.1.21.3.13.1
transient network	11/4.1.21.3.15
network-chain molar mass	11/4.2.12
network defect	11/4.2.13
neutral axis (neutral plane) (in forced flexural oscillation)	8/6.7
Newtonian liquid	8/4.2
nominal stress	8/3.4
nonad	1/1.63, 1/1.64
non-amphiphilic mesogen	7/2.11.2
non-draining	3/3.2.7
nonlinear-optical polymer	12/3.10
non-Newtonian liquid	8/4.2
non-uniform polymer (polydisperse polymer)	1/2.14, 3/2.4

INDEX - Terminology

normal stresses	8/3.5
<i>n</i> -star macromolecule	1/1.51
<i>n</i> -strand chain	1/1.46
<i>n</i> -strand macromolecule	1/1.47
nucleation	6/5.1
nucleation of phase separation	9/2.5
nucleus (in liquid crystals)	7/4.9.2.1
number-average degree of polymerization	3/2.12
number-average molar mass	3/2.6
number-average molecular weight	3/2.6
number-average relative molecular mass	3/2.6
number-distribution function	3/2.14
octad	1/1.63, 1/1.64
odd-membered liquid-crystal dimer	7/2.11.2.9
oligomer	1/2.3
oligomerization	1/3.2
oligomer molecule	1/1.2
onion morphology	9/3.21
optical texture	7/4.8
optically active polymer	12/3.11
ordered co-continuous double gyroid morphology	9/3.22
ordered smectic phase	7/3.4.2
order parameter	7/5.1
organic-inorganic polymer	11/4.1.22
organically modified ceramic	11/4.1.23
organically modified silicate	11/4.1.24
organomodified ceramic	11/4.1.25
Ormocer	11/4.1.23
Ormosil	11/4.1.24
oscillatory (simple) shear flow	8/2.13
Oseen-Zocher-Frank constants	7/5.3
Ostwald ripening	11/5.27
out-of-phase viscosity	8/5.21
oxidation-reduction polymer	12/2.12
parabolic focal conic domain	7/4.10.2
parallel-chain crystal	6/4.12
partially draining	3/3.2.8
particle scattering factor	3/3.3.10
particle scattering function	3/3.3.10
pendant chain	1/1.53, 20/1.6
pendant group	1/1.56
pentad	1/1.63, 1/1.64
pentafunctional	1/1.54, 1/1.55
peptization	11/5.28
periodic copolymer	1/2.12
periodic copolymerization	1/3.12
peroxidation	13/27
peroxide decomposer	13/28
persistence length	3/1.22
perturbed dimensions	3/1.8

phantom chain behaviour	11/4.2.14
phase angle (of a forced oscillation)	8/5.10
phase domain	9/3.2
phase interaction	9/3.7
phase inversion	9/2.15
phase microdomain	9/3.2
phase nanodomain	9/3.2
phase ripening	9/2.19
phasmidic mesogen	7/2.11.2.5
photo-acid generator	12/1.1
photo-base generator	12/1.1
photochemical reaction	12/1.10, 12/1.18
photochromic polymer	12/3.14
photoelastic polymer	12/3.12
photoluminescent polymer	12/3.13
photopolymerization	12/1.10
photoreactive polymer	12/3.14
photorefractive polymer	12/3.10
photoresponsive polymer	12/3.14
photosensitive polymer	12/3.14
photosensitizer	13/29
photosensitization	13/29
piezoelectric polymer	12/3.15
pinning	9/2.19
Piola tensor	8/1.8
planar alignment (homogeneous alignment)	
(in liquid crystals)	7/4.4
uniform planar alignment (in liquid crystals)	7/4.5
plane strain	8/1.8
plane stress	8/1.2
plate height	3/3.4.14
plate number	3/3.4.13
Poisson distribution	3/2.18
Poisson's ratio	8/2.6
polyacid	10/23
polyaddition	1/3.8, 4/3
polyampholyte	10/1
polyanion	12/2.2
polybase	10/25
polybetaine	10/26
polycatenary mesogen	7/2.11.2.5
polycation	12/2.2
polycondensation	1/3.7, 4/2
polydisperse polymer	1/2.14, 3/2.4
polyelectrolyte (polymer electrolyte, polymeric electrolyte)	1/2.38, 12/3.16, 10/27, 10/30, 10/31
polyelectrolyte complex	10/28
polyelectrolyte molecule	1/1.65
polyelectrolyte network	10/29
polygonal texture	7/4.10.3

INDEX - Terminology

polymer	1/2.2
polymer absorbent	12/3.22
polymer acid	12/3.16
polymer adsorbent	12/3.22
polymer alloy	9/1.38, 11/4.1.26
polymer base	12/3.16
polymer blend	1/2.40, 9/1.1, 11/4.1.27, 20/1.15
compatible polymer blend	9/1.35, 11/4.1.27.1
homogeneous polymer blend (miscible polymer blend)	11/4.1.27.2, 9/1.3 11/4.1.27.3
homologous polymer blend	9/1.4
immiscible polymer blend (heterogeneous polymer blend)	9/1.12
isomorphic polymer blend	9/1.5
metastable miscible polymer blend	9/1.8
polymer catalyst	12/2.5
polymer compatibilizer	12/3.17
polymer complexation (polymer complex formation)	12/1.11
(polymer) crystal	6/1.4
(polymer) crystallite	6/1.5
polymer cyclization	12/1.12
polymer degradation	12/1.13
polymer derived ceramic	11/4.1.28
polymer drug	12/3.18
polymer functionalization	12/1.14
polymeric	1/1.1
polymeric inner salt	10/34
polymerization	1/3.1
Polymerization reactions, basic classification and definitions	Ch. 4
chain polymerization	Ch. 4, Sec. 1
polycondensation	Ch. 4, Sec. 2
polyaddition	Ch. 4, Sec. 3
summary	Ch. 4, Sec. 4
polymer liquid-crystal	7/6.1
polymer membrane	12/3.20
polymer-metal complex	12/2.6
polymer molecule	1/1.1
polymer phase-transfer catalyst	12/2.7
polymer-polymer complex	1/2.44, 9/1.6, 20/1.19
polymer-poor phase (dilute phase)	3/3.4.2
polymer reactant	12/2.9
polymer reaction	12/1.15
polymer reagent	12/2.9
polymer-rich phase (concentrated phase)	3/3.4.3
polymer solvent	12/3.21
polymer-solvent interaction	3/3.1.3
polymer sorbent	12/3.22
polymer support	12/3.23
polymer surfactant	12/3.24
polymer with mesogenic side-groups or side-chains	7/6.3

polymeric	1/1.1
Polymers containing ions and ionizable or ionic groups	Ch. 10
polymer-solvent interaction	3/3.1.3
polymer-supported catalyst	12/2.8
polymer-supported enzyme	12/2.8
polymer-supported reaction	12/1.16
polymer-supported reagent	12/2.9
polymolecularity correction	3/2.21
polymorphic modifications of strongly polar compounds	7/3.1.6
Porod-Kratky chain	3/1.21
pre-ceramic	11/4.1.29
pre-ceramic material	11/4.1.30
precipitation	11/5.29
precipitation fractionation	3/3.4.4
preferential sorption (selective sorption)	3/3.1.13
pre-gel regime	11/2.13
pre-gel state	11/2.14
prepolymer	1/2.37, 12/2.10
prepolymer molecule	1/1.11
pregreg	9/1.20
pre-tilted homeotropic alignment	7/4.3
pre-transitional temperature	7/2.9
primary crystallization	6/5.4
probability density function	3/2.13
protection of a reactive group	12/1.17
pseudo-co-oligomer	1/2.8
pseudo-copolymer	1/2.6
pure shear deformation or flow	8/3.1
pure shear of an elastic solid	8/2.7
pure shear stress	8/3.1
pyramidal mesogen	7/2.11.2.3
pyrolysis	11/5.30, 13/31
auto-pyrolysis	13/31
quality of solvent	3/3.1.4
quaterpolymer	1/2.5
racemate-forming chirogenic polymerization	5/2
racemate-forming enantiomer- differentiating polymerization	5/3
radial droplet texture	7/4.9.1.2
radiation reaction	12/1.18
radical copolymerization	1/3.16
radical polymerization	1/3.15
radius of gyration	3/1.9
random coil	3/1.15
random copolymer	1/2.10
random copolymerization	1/3.10
random-walk chain	3/1.16
rate-of-strain tensor	8/1.12
Rayleigh ratio	3/3.3.7
excess Rayleigh ratio	3/3.3.8
reaction injection moulding	11/5.31

reinforced reaction injection moulding	11/5.31.1
Reactions of polymers and functional polymeric materials	Ch. 12
introduction	
reactions involving polymers	Ch. 12, Sec. 1
polymer reactants and reactive polymeric materials	Ch. 12, Sec. 2
functional polymeric materials	Ch. 12, Sec. 3
references	
alphabetical index of terms	
reactive blending	12/1.19
reactive polymer	12/2.11
reactive polymer processing	11/5.32
recrystallization	6/5.7
rectangular smectic mesophase	7/3.4.1
redox polymer	12/2.12
reduced viscosity	3/3.2.19
re-entrant mesophase	7/3.1.6.1
refractive index increment (refractive increment)	3/3.3.6
regular comb macromolecule	1/1.52
regular macromolecule	1/1.4
regular oligomer molecule	1/1.7
regular polymer	1/2.15, 15/2.1, 16/2.1
regular star macromolecule	1/1.51
relative biaxiality (of a biaxial mesophase)	7/5.8.2
relative molecular mass	3/1.1
relative-molecular-mass average	3/2.5
relative viscosity	3/3.2.17
relative viscosity increment	3/3.2.18
relaxation spectrum	8/5.6
relaxation time	8/5.6
reorganization	6/5.6
resin	12/2.13
resist polymer	12/3.25
electron-beam resist	12/3.25
ion-beam resist	12/3.25
negative-tone resist (negative resist)	12/3.25
photoresist	12/3.25
positive-tone resist (positive resist)	12/3.25
X-ray resist	12/3.25
resonance curve	8/6.11
width of the resonance curve	8/6.13
resonance frequency	8/6.7, 8/6.12
retardation spectrum	8/5.8
retardation time	8/5.8
retarder	13/32
retention volume	3/3.4.9
ribbon mesophase	7/3.1.6.3
rigid chain	7/6.7
ring-opening copolymerization	1/3.14
ring-opening polymerization	1/3.13
rise time	7/5.21

Rivlin-Ericksen tensors	8/1.14
rod-like morphology	9/3.24
root-mean-square end-to-end distance	3/1.12
rotational diffusion	3/3.2.10
rotational viscosity coefficients	7/5.6
salami-like morphology	9/3.25
sanidic mesogen	7/2.11.2.4
sanidic mesophase	7/3.4
scattering angle	3/3.3.3
scattering vector	3/3.3.4
length of the scattering vector	3/3.3.5
schlieren texture	7/4.9.2
Schulz-Flory distribution	3/2.17
Schulz-Zimm distribution	3/2.16
scission	
hydrolytic	12/1.8
main-chain	12/1.8
mechanochemical	12/1.8
oxidative	12/1.8
photochemical	12/1.8
thermal	12/1.8
secant modulus	8/4.7
secondary crystallization	6/5.5
second moment of area in a force flexural oscillation	8/6.7
second normal-stress coefficient	8/4.14
second normal-stress difference (second normal-stress function)	8/3.7
second virial coefficient	3/3.1.7
sedimentation	11/5.33
sedimentation coefficient	3/3.2.11
sedimentation equilibrium	3/3.2.12
sedimentation velocity method	3/3.2.14
segmented copolymer	9/3.11
segregated star macromolecule	1/1.51
segregation	6/5.8
selective sorption	3/3.1.13
selective solvent	3/3.1.14
semi-rigid chain	7/6.8
sensitizer	13/33
shape-memory polymer	12/3.26
shear	8/2.8, 8/2.13
shear compliance	8/4.11
shear modulus	8/4.10
shear rate	8/2.13
shear strain	8/2.8
shear stress	8/3.5
shear viscosity	8/4.12
shish-kebab structure	6/3.8
short chain	1/1.37
short-chain branch	1/1.53, 3/1.23

INDEX - Terminology

short-range intramolecular interaction	3/1.5
shrinkage	11/5.34
side-chain	1/1.53, 20/1.6
side-group or side-chain polymer liquid-crystal (side-group or side-chain liquid-crystalline polymer, polymer with mesogenic side-groups or side-chains, comb-shaped (comb-like) polymer liquid crystal)	7/6.3
side-group	1/1.56
side-on fixed side-group polymer liquid crystal	7/6.3
side-to-tail twin mesogen	7/2.11.2.9
simple shear of an elastic solid	8/2.8
single-strand chain	1/1.38
single-strand macromolecule	1/1.39
single-strand polymer	1/2.29, 15/2.2
sintering	11/5.35
size-exclusion chromatography	3/3.4.6
skeletal atom	1/1.49
skeletal bond	1/1.50
skeletal structure	1/1.48
slip	11/2.15
slip casting	11/5.36
small particle	3/3.3.1
small-strain tensor	8/1.10
smectic A ₁ , A _d , A ₂ , C ₁ , C _d , C ₂ mesophases	7/3.1.6.2
smectic A mesophase	7/3.1.5.1.1
smectic B mesophase	7/3.1.5.2.1
smectic C mesophase	7/3.1.5.1.2
smectic F mesophase	7/3.1.5.2.2
smectic I mesophase	7/3.1.5.2.3
smectic mesophase	7/3.1.5
smectic mesophases with unstructured layers: SmA and SmC	7/3.1.5.1
smectic textures	7/4.10
smectogen	7/2.11
soft-segment phase domain	9/3.10
solid polymer electrolyte	10/33
sol	11/2.16
aerosol	11/2.16.1
particulate sol	11/2.26.2
polymeric sol	11/2.26.3
sonosol	11/2.26.4
sol fraction	11/2.17
sol-gel coating	11/ 4.1.31.1
sol-gel critical concentration	11/5.37
sol-gel material	11/4.1.31
sol-gel metal oxide	11/4.1.31.2
sol-gel process	11/5.38
sol-gel silica	11/4.1.31.3
sol-gel transition	11/5.39
Sols, gels, networks and inorganic-organic hybrid materials	Ch. 11
introduction	Ch. 11, Sec. 1

precursors	Ch. 11, Sec. 2
gels	Ch. 11, Sec. 3
solids	Ch. 11, Sec. 4
processes	Ch. 11, Sec. 5
references	Ch. 11, Sec. 6
alphabetical index of terms	Ch. 11, Sec. 7
solubility parameter	3/3.1.16
spacer	7/6.4
specific refractive index increment	3/3.3.6
spherulite	6/3.9
spinodal decomposition	9/2.8
spinodal phase-demixing	9/2.8
spinodal (spinodal curve)	9/2.7
spiro chain	1/1.42
spiro macromolecule	1/1.43
spiro polymer	1/2.30
splay deformation	7/5.2.1
spreading function	3/3.4.11
spring constant	8/5.3, 8/5.4
stability	13/34
biological stability	13/34
chemical stability	13/34
oxidative stability	13/34
photostability	13/34
photo-oxidative stability	13/34
radiation stability	13/34
thermal stability	13/34
thermostability	13/34
thermo-oxidative stability	13/34
stabilization	13/35
chemical stabilization	13/35
physical stabilization	13/35
stabilizer	13/36
light stabilizer	13/30
photoprotective agent	13/30
photostabilizer	13/30
thermal stabilizer	13/36
UV stabilizer	13/36
standard linear viscoelastic solid	8/5.5
star macromolecule	1/1.51, 20/1.14
star polymer	1/2.32
star polymer liquid-crystal	7/6.2
statistical coil	3/1.15
statistical copolymer	1/2.9
statistical copolymerization	1/3.9
statistical pseudo-copolymer	1/2.6
statistical segment	3/1.18
Staudinger index	3/3.2.21
steady (simple) shear flow	8/2.13
steady uniaxial homogeneous elongational deformation or	

INDEX - Terminology

flow of an incompressible viscoelastic liquid or solid	8/2.12
stem	6/4.2
stereoblock	2/1.21
stereoblock macromolecule	1/1.29
stereoblock polymer	1/2.26, 2/1.23
Stereochemical definitions and notations relating to polymers	Ch. 2
basic definitions	Ch. 2, Sec. 1
constitutional and configurational sequences	Ch. 2, Sec. 2.1
description of relative configurations	Ch. 2, Sec. 2.2
designation of conformation of polymer molecules	Ch. 2, Sec. 3.1
specific terminology for crystalline polymers	Ch. 2, Sec. 3.2
supplementary definitions	Ch. 2, Sec. 4
Stereochemically asymmetric polymerizations	Ch. 5
asymmetric polymerization	Ch. 5, Sec. 1
asymmetric chirogenic polymerization	Ch. 5, Sec. 2
asymmetric enantiomer-differentiating polymerization	Ch. 5 Sec. 3
stereohomosequence	2/2.1.6
stereoregular macromolecule	1/1.22
stereoregular polymer	1/2.20, 2/1.9
stereorepeating unit	1/1.19, 2/1.4
stereoselective polymerization	5/3
stereosequence	2/2.1.4
stereospecific polymerization	2/1.11
steric factor	3/1.20
storage compliance	8/5.16
storage modulus	8/5.12
stored energy function	8/4.1
strain amplitude (of a forced oscillation)	8/5.10
strain tensor	8/1.8
streaming birefringence	3/3.2.9
stress	8/1.2
stress amplitude (of a forced oscillation)	8/5.10
stress relaxation	8/5.7
stress tensor (stress)	8/1.2
stress tensor resulting from orthogonal deformation or flow	8/3.1
stress tensor resulting from a simple shear deformation or flow	8/3.5
stress vector	8/1.1
structural disorder	6/2.10
subchain	1/1.31, 20/1.5
superabsorbent polymer	12/3.27
supercritical drying of a gel	11/5.40
surface disclination line	7/4.9.3.1
surface fractal dimension	11/4.1.32
surface grafting	12/1.21
surface pre-tilt	7/4.3
swallow-tailed mesogen	7/2.11.2.6
swelling	11/5.41
swelling agent	11/3.9
switchboard model	6/4.9

swollen-gel-bead polymer support	12/3.23
syndiotactic macromolecule	1/1.24
syndiotactic polymer	1/2.19, 2/1.8
syneresis	11/5.42
microsyneresis	11/5.42.1
tack	9/1.26
tactic block	2/1.19
tactic block polymer	2/1.22
tacticity	1/1.20, 2/1.6
tactic macromolecule	1/1.21
tactic polymer	1/2.17, 2/1.5
tail-to-tail twin mesogen	7/2.11.2.9
tangent modulus	8/4.7
telechelic molecule	1/1.11
telechelic oligomer	12/2.14
telechelic polymer	12/2.14
telomer	1/2.3
telomerization	1/3.2
tensile compliance	8/4.8
tensile modulus	8/4.7
tensile strain	8/2.4
tensile stress	8/3.2
terpolymer	1/2.5
tetrad	1/1.63, 1/1.64
tetrafunctional	1/1.54, 1/1.55
thermodynamic quality of solvent	3/3.1.4
thermodynamically equivalent sphere	3/1.4
thermolysis	11/5.43, 13/31
thermo-oxidative aging	13/4
thermo-oxidative degradation	13/16
thermo-oxidative stability	13/34
thermoplastic elastomer	9/1.46, 11/4.1.8.1
thermoset	12/2.15
thermosetting polymer	12/2.15
thermostability	13/34
thermotropic liquid-crystalline polymer	12/3.8
thermotropic mesophase	7/2.4.1
theta solvent (θ solvent)	3/3.1.5
theta state (θ state)	3/3.1.5
theta temperature (θ temperature)	3/3.1.6
threaded texture	7/4.9.3
three-point bending	8/6.7
three-point flexure	8/6.7
threshold fields	7/5.12
threshold electric field	7/5.12
threshold magnetic induction	7/5.12
tie molecule	6/4.1
tilted smectic mesophase	7/3.1.5
'time-off' of the electro-optical effect	7/5.20

INDEX - Terminology

'time-on' of the electro-optical effect	7/5.19
torsion pendulum	8/6.2
traction (stress vector)	8/1.1
transesterification	12/1.7
transitional entropy	7/2.8
transition temperature	7/2.5
transtactic polymer	2/1.17
triad	1/1.63, 1/1.64
trifunctional	1/1.54, 1/1.55
trimethylsilylation	12/1.17
triphasic catalyst	12/2.7
tritactic polymer	2/1.13
true stress	8/1.2
Tung distribution	3/2.19
turbidimetric titration	3/3.3.16
turbidity	3/3.3.9
turn-off time	7/5.19
turn-on time	7/5.18
twin mesogen	7/2.11.2.9
twist alignment	7/4.6
twist deformation	7/5.2.3
twisted-nematic cell	7/5.18
twist grain-boundary mesophase	7/3.6
twist grain-boundary A* mesophase	7/3.6.1
twist grain-boundary C* mesophase	7/3.6.2
twist viscosity	7/5.6
undecad	1/1.63, 1/1.64
underground aging	13/4
uniaxial compliance	8/4.8
uniaxial strain (engineering strain)	8/2.4
(uniaxial) compressive strain	8/2.4
(uniaxial) tensile strain	8/2.4
uniaxial deformation of an elastic solid	8/2.2
uniaxial deformation or flow of an incompressible viscoelastic liquid or solid	8/2.11
uniaxial deformation ratio	8/2.3
uniaxial mesophase anisotropy	7/5.8.1
uniaxial nematic mesophase	7/3.1.1
uniaxial orthogonal deformation or flow	8/3.1
uniaxial pressing	11/5.44
uniform planar alignment	7/4.5
uniform polymer (monodisperse polymer)	1/2.13, 3/2.3
unit cell	6/1.6
universal calibration	3/3.4.10
unperturbed dimensions	3/1.7
unzipping	1/3.25
upper critical solution temperature	9/2.14
variegated star macromolecule	1/1.51
virial coefficients of the chemical potential	3/3.1.7
virtual transition temperature	7/2.7

viscoelasticity	8/5.1
viscosity	8/4.12
viscosity-average degree of polymerization	3/2.12
viscosity-average molar mass	3/2.10
viscosity-average molecular weight	3/2.10
viscosity-average relative molecular mass	3/2.10
viscosity function	3/3.2.24
viscosity number	3/3.2.19
viscosity ratio	3/3.2.17
viscous flow sintering	11/5.45
viscous sintering	11/5.46
Voigt-Kelvin model (Voigt-Kelvin element, Voigt model, Voigt element)	8/5.4
volume compression	8/2.9
vorticity tensor	8/1.13
vulcanization	11/5.47, 12/1.22
weak link	13/37
wear	13/38
abrasive wear	13/38
weatherability	13/39
weathering	13/39
accelerated weathering	13/39
artificial weathering	13/39
weight-average degree of polymerization	3/2.12
weight-average molecular weight	3/2.7
weight-distribution function	3/2.15
wetting	9/1.23
width of the resonance curve	8/6.13
Williams domains	7/5.14
worm-like chain	3/1.21
Young's modulus	8/4.7
z-average degree of polymerization	3/2.12
z-average molar mass	3/2.8
z-average molecular weight	3/2.8
z-average relative molecular mass	3/2.8
(z + 1)-average degree of polymerization	3/2.12
(z + 1)-average molar mass	3/2.9
(z + 1)-average molecular weight	3/2.9
(z + 1)-average relative molecular mass	3/2.9
zero-shear viscosity	8/4.12
Zimm plot	3/3.3.11
zwitterionic polymer	10/34
α -scission	12/1.8
β -scission	12/1.8
π -line disclination	7/4.9.2.2
2π -line disclination	7/4.9.2.2
χ interaction parameter (χ parameter)	3/3.1.12, 9/2.4

Nomenclature

Abbreviations for names of polymeric substances	Ch. 22
backbone	1/1.34, 15/2.5, 20/1.4
Biopolymer-related IUPAC-IUB nomenclature	
recommendations, bibliography of	Appendix
branch (side-chain, pendant chain)	1/1.53, 20/1.6
branched chain	1/1.33, 20/1.3
branch point	1/1.54, 11/4.2.2, 20/1.8
branch unit	1/1.55, 20/1.7
chain	1/1.30, 20/1.1
comb macromolecule	1/1.52, 20/1.13
constitutional repeating unit	1/1.15, 15/2.4, 16/2.3
constitutional unit	1/1.14, 15/2.3, 16/2.2
Copolymers, source-based nomenclature for	Ch. 19
preamble	
basic concept	
classification and definition of copolymers	
copolymers with an unspecified arrangement of monomeric units	Ch. 19, Sec. 1
statistical copolymers	Ch. 19, Sec. 2
alternating copolymers	Ch. 19, Sec. 3
other types of periodic copolymers	Ch. 19, Sec. 4
block copolymers	Ch. 19, Sec. 5
graft copolymers	Ch. 19, Sec. 6
copolymers made by condensation polymerization or related polymerization	Ch. 19, Sec. 7
specification with regard to mass fractions, mole fractions, molar masses and degrees of polymerization	Ch. 19, Sec. 8
appendix: alternative nomenclature for copolymers	
references	
crosslink	1/1.59, 11/4.2.4, 20/1.9
Double-strand (ladder and spiro) organic polymers	Ch. 16
introduction	Ch. 16, Sec. 1
definitions	Ch. 16, Sec. 2
structure-based nomenclature	Ch. 16, Sec. 3
fundamental principles	Ch. 16, Sec. 3.1
identification of the preferred constitutional repeating unit	Ch. 16, Sec. 3.2
orientation of the constitutional repeating unit	Ch. 16, Sec. 3.3
naming of the preferred constitutional unit	Ch. 16, Sec. 3.4
naming of the polymer	Ch. 16, Sec. 3.5
polymers constituted of repeatedly fused or spiro carbocycles	Ch. 16, Sec. 3.6
polymers constituted of repeatedly fused or spiro carbocyclic systems	Ch. 16, Sec. 3.7

polymers constituted of repeatedly fused or spiro heterocycles	Ch. 16, Sec. 3.8
polymers constituted of repeatedly fused or spiro heterocyclic systems	Ch. 16, Sec. 3.9
substituents	Ch. 16, Sec.3.10
end-groups	Ch. 16, Sec. 3.11
sourced-based nomenclature	Ch. 16, Sec. 4
acknowledgement	Ch. 16, Sec. 5
references	Ch. 16, Sec. 6
double-strand polymer	1/2.30, 16/2.6
end-group	1/1.35, 15/2.6
Generic source-based nomenclature for polymers	Ch. 21
introduction	Ch. 21, Sec. 1
source-based nomenclature for homopolymers	Ch. 21, Sec. 2
generic nomenclature	Ch. 21, Sec. 3
fundamental principles	Ch. 21, Sec. 3.1
general rules	Ch. 21, Sec. 3.2
further applications of generic names	Ch. 21, Sec. 4
references	Ch. 21, Sec. 5
Graphic representations (chemical formulae) of macromolecules	Ch. 18
preamble	
general rules	Ch. 18, Sec. 1
regular polymers	Ch. 18, Sec. 2
irregular polymers	Ch. 18, Sec. 3
copolymers	Ch. 18, Sec. 4
references	
interpenetrating polymer network	1/2.43, 9/1.9, 11/4.1.21.3.6, 20/1.18
Introduction to polymer nomenclature	Ch. 14
preamble	Ch. 14, Sec. 1
the principles of source-based nomenclature	Ch. 14, Sec. 1.1
the principles of structure-based nomenclature	Ch. 14, Sec. 1.2
IUPAC nomenclature	Ch. 14, Sec. 2
source-based nomenclature	Ch. 14, Sec. 2.1
homopolymers	Ch. 14, Sec. 2.1.1
copolymers	Ch. 14, Sec. 2.1.2
structure-based nomenclature	Ch. 14, Sec. 2.2
regular single-strand organic polymers	Ch. 14, Sec. 2.2.1
inorganic and coordination polymers	Ch. 14, Sec. 2.2.2
stereochemical definitions and notations	Ch. 14, Sec. 2.2.3
regular double-strand (ladder and spiro) organic polymers	Ch. 14, Sec. 2.2.4
irregular single-strand organic polymers	Ch. 14, Sec. 2.2.5
trade names and abbreviations	Ch. 14, Sec. 3
references	Ch. 14, Sec. 4
Irregular single-strand organic polymers, structure-based nomenclature	Ch. 17
preamble	
basic principles	

INDEX - Nomenclature

- rules for naming irregular polymers
 - additional examples
 - references
- linear chain 1/1.32, 20/1.2
- locant 15/2.10
- macrocycle 1/1.57, 20/1.12
- main chain (backbone) 1/1.34, 15/2.5, 20/1.4
- micronetwork 1/1.60, 11/4.1.21.3.7, 20/1.11
- network 1/1.58, 11/4.1.21, 20/1.10
- network polymer 1/2.41, 11/4.1.21.3, 11/4.1.21.2, 20/1.17
- Non-linear macromolecules and macromolecular assemblies,
 - source-based nomenclature Ch. 20
 - preamble
 - definitions Ch. 20, Sec. 1
 - general principles Ch. 20, Sec. 2
 - non-linear homopolymer molecules Ch. 20, Sec. 3
 - non-linear copolymer molecules Ch. 20, Sec. 4
 - copolymer molecules comprising a single species of linear chain Ch. 20, Sec. 4.1
 - copolymer molecules comprising a variety of species of chains Ch. 20, Sec. 4.2
 - macromolecular assemblies Ch. 20, Sec. 5
 - quantitative specifications Ch. 20, Sec. 6
 - references Ch. 20, Sec. 7
 - path length 15/2.8
 - pendant chain 1/1.53, 20/1.6
 - polymer blend 1/2.40, 9/1.1, 11/4.1.27, 20/1.15
 - polymer-polymer complex 1/2.44, 9/1.6, 20/1.19
 - regular polymer 1/2.15, 15/2.1, 16/2.1
- Regular single-strand organic polymers, nomenclature of Ch. 15
 - preamble Ch. 15, Sec 1
 - definitions Ch. 15, Sec 2
 - fundamental principles Ch. 15, Sec 3
 - seniority of subunits Ch. 15, Sec 4
 - heterocyclic rings and ring systems Ch. 15, Sec 4.1
 - heteroatom chains Ch. 15, Sec 4.2
 - carbocyclic rings and ring systems Ch. 15, Sec 4.3
 - acyclic carbon chains Ch. 15, Sec 4.4
 - selection of the preferred constitutional repeating unit (CRU) Ch. 15, Sec 5
 - simple CRUs Ch. 15, Sec 5.1
 - complex CRUs Ch. 15, Sec 5.2
 - naming the preferred constitutional repeating unit (CRU) Ch. 15, Sec 6

naming subunits	Ch. 15, Sec 6.1
naming the preferred CRU	Ch. 15, Sec 6.2
naming the polymer	Ch. 15, Sec 7
polymer chain as a substituent	Ch. 15, Sec 8
examples of polymer names	Ch. 15, Sec 9
references	Ch. 15, Sec 10
appendix	Ch. 15, Sec 11
list of names of common subunits	Ch. 15, Sec 11.1
structure- and source-based names for common polymers	Ch. 15, Sec 11.2
ring	16/2.4
ring system	16/2.5
semi-interpenetrating polymer network	1/2.42, 9/1.10, 11/4.1.21.3.14, 20/1.16
seniority	15/2.9
side-chain (branch, pendant chain)	1/1.53, 20/1.6
single-strand polymer	1/2.29, 15/2.2
star macromolecule	1/1.51, 20/1.14
subchain	1/1.31, 20/1.5
subunit	15/2.7