

Solvent

Abbreviation	Chemical Name	Molecular Formula	Structure
ACN	Acetonitrile	C2H3N	H ₃ C—C≡N
AcOH	Acetic acid	C2H4O2	
t-BuOH	Tert-Butyl alcohol	C4H10O	
DCM	Dichloromethane	CH2Cl2	
DMA	Dimethylacetamide	C4H9NO	
DMF	Dimethylformamide	C3H7NO	
DMPU	1,3-Dimethyl-3,4,5,6-tetrahydro-2(1H)-pyrimidinone	C6H12N2O	
DMSO	Dimethyl sulfoxide	C2H6OS	
EtOH	Ethanol	C2H6O	
HMPT	Hexamethylphosphoramide	C6H18N3OP	
MeOH	Methanol	CH4O	
MTBE, TMBE	Methyl tert-butyl ether	C5H12O	
PEG-r	Polyethylene glycol repeating unit	C2H4O	 (NOTE: This is the FULL PEG molecule.)
TFA	Trifluoroacetic acid	C2HF3O2	
THF	Tetrahydrofuran	C4H8O	

Reagents

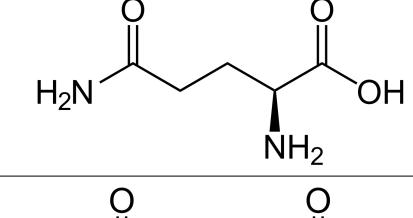
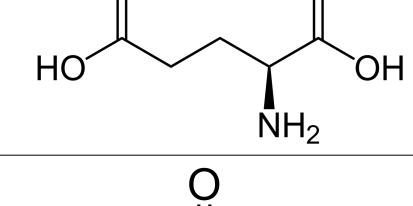
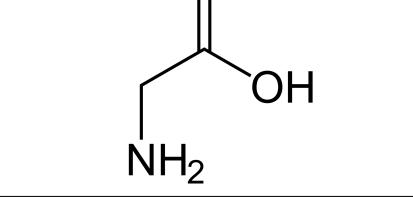
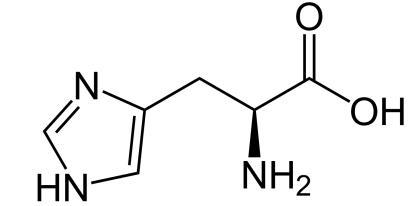
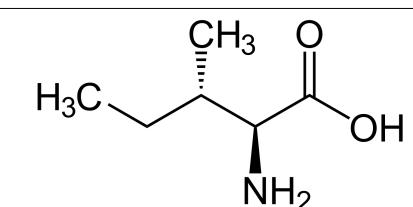
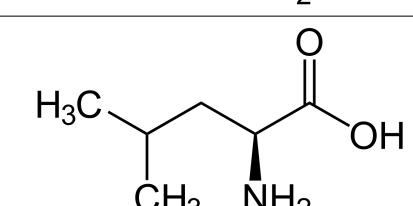
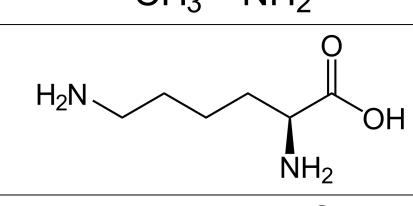
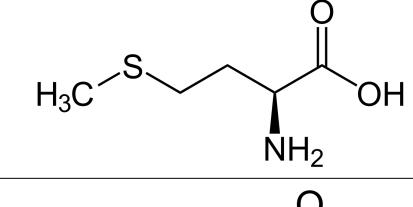
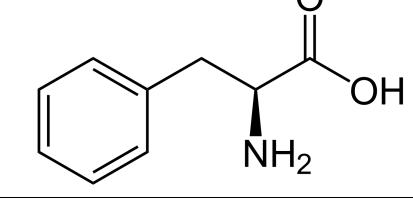
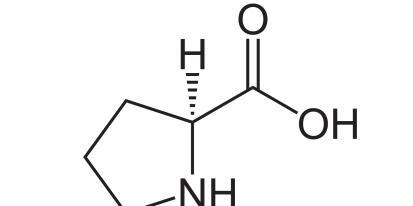
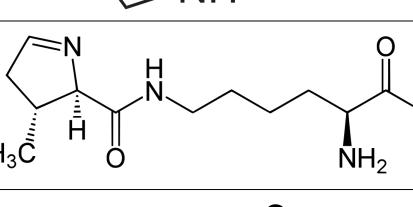
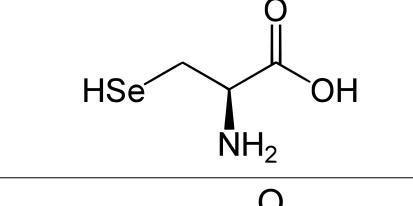
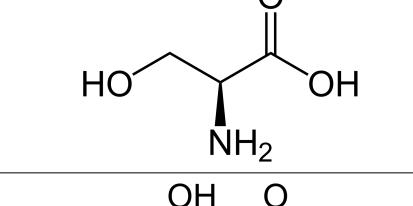
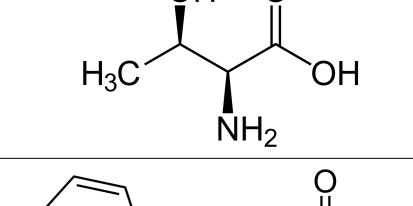
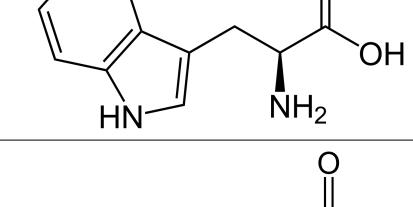
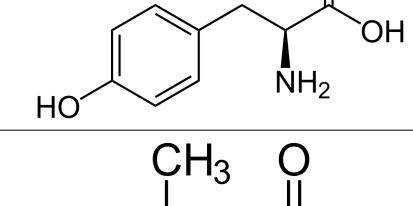
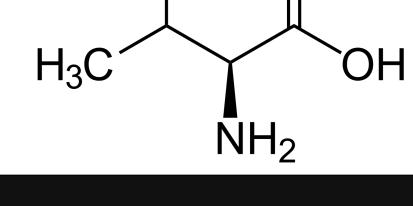
Abbreviation	Chemical Name	Molecular Formula	Structure
9-BBN	9-Borabicyclo(3.3.1)nonane	C16H30B2	
ACAC	Acetylacetone	C5H8O2	
AIBN	Azobisisobutyronitrile	C8H12N4	
BTI	(Bis(trifluoroacetoxy)iodo)benzene	C10H5F6IO4	
BuLi	N-Butyllithium	C4H9Li	
BOP	BOP reagent	C12H22F6N6OP2	
CDI	Carbonyldiimidazole	C7H6N4O	
COD	1,5-Cyclooctadiene	C8H12	
COT	Cyclooctatetraene	C8H8	
CPD	Cyclopentadiene	C5H6	
CSA	Camphorsulfonic acid	C10H16O4S	 Another one:

DABCO	1,4-diazabicyclo[2.2.2]octane	C6H12N2	
DADO	Dimethylglyoxime	C4H8N2O2	
DIBAH, DIBAL, DIBAL-H	Diisobutylaluminium hydride	C16H38Al2	
DBU	1,8-Diazabicycloundec-7-ene	C9H16N2	
DBN	1,5-Diazabicyclo(4.3.0)non-5-ene	C7H12N2	
DBPO, BPO	Benzoyl peroxide	C14H10O4	
DCC	N,N'-Dicyclohexylcarbodiimide	C13H22N2	
DIC	N,N'-Diisopropylcarbodiimide	C7H14N2	
DEAD	Diethyl azodicarboxylate	C6H10N2O4	
DIAD	Diisopropyl azodicarboxylate	C8H14N2O4	
DMAP	4-Dimethylaminopyridine	C7H10N2	
DNPH	2,4-Dinitrophenylhydrazine	C6H6N4O4	
EDC	1-Ethyl-3-(3-dimethylaminopropyl)carbodiimide	C8H17N3	
HATU	1-[Bis(dimethylamino)methylene]-1H-1,2,3-triazolo[4,5-b]pyridinium 3-oxid hexafluorophosphate	C10H15F6N6OP	
HexLi	Hexyllithium	C6H13Li	
HMDS	Bis(trimethylsilyl)amine	C6H19NSi2	
HOBt	Hydroxybenzotriazole	C6H5N3O	
IDCP	Iodonium di-sym-collidine perchlorate	C16H22N2O4ICl	
LAH	Lithium aluminium hydride	LiAlH4	
LDA	Lithium diisopropylamide	C6H14LiN	
mCPBA	meta-Chloroperoxybenzoic acid	C7H5ClO3	
MeLi	Methylolithium	CH3Li	

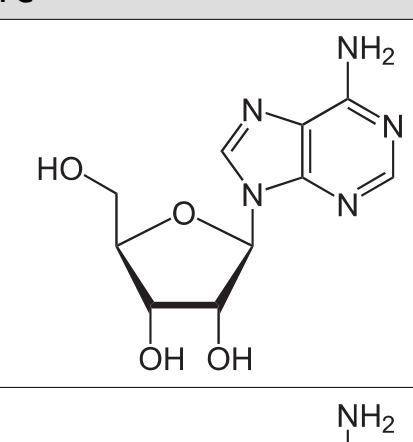
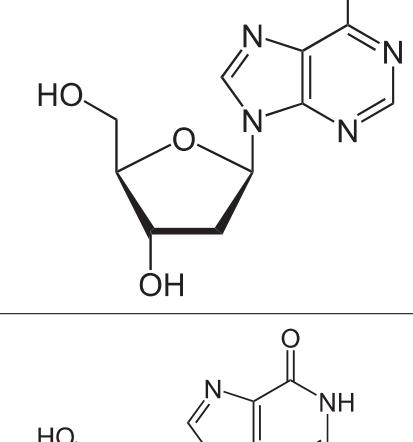
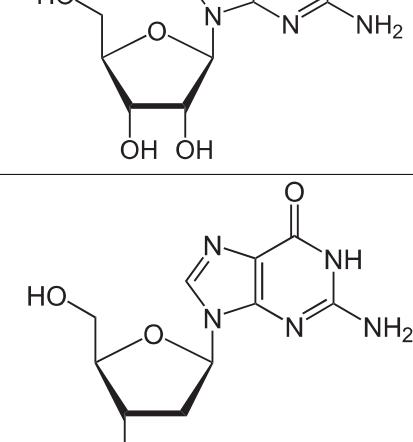
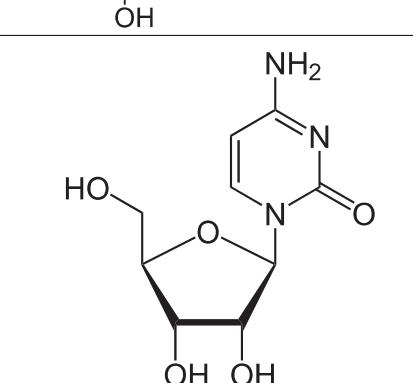
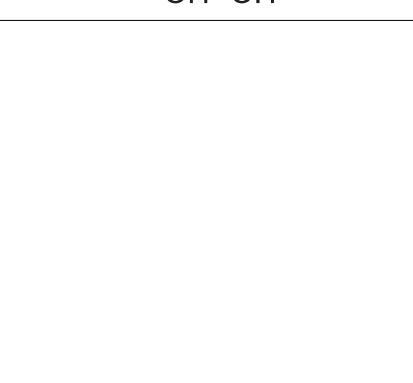
MoOPD	Oxodiperoxomolybdenum (Pyridin) (Dimethylpropylphosphorsäuretriamid)	C11H17O6N3Mo	
MoOPH	Oxodiperoxomolybdenum (Pyridin) (Hexamethylphosphorsäuretriamid)	C11H23MoN3O6P	
NBS	N-Bromosuccinimide	C4H4BrNO2	
NCS	N-Chlorosuccinimide	C4H4ClNO2	
NHS	N-Hydroxysuccinimide	C4H5NO3	
PCC	Pyridinium chlorochromate	C5H5NHClCrO3	
PIFA	(Bis(trifluoroacetoxy)iodo)benzene	C10H5F6IO4	
PyBOP	benzotriazol-1-yl-oxytritypyrrolidinophosphonium hexafluorophosphate	C18H28F6N6OP2	
sec-BuLi	sec-Butyllithium	C4H9Li	
TADDOL	$\alpha,\alpha,\alpha',\alpha'$ -Tetraaryl-1,3-dioxolan-4,5-dimethanol	C31H30O4	
TBTU	O-(Benzotriazol-1-yl)-N,N,N',N'-tetramethyluronium tetrafluoroborat	C11H16N5OBF4	
TEMPO	2,2,6,6-Tetramethylpiperidin-1-yl)oxy, or (2,2,6,6-tetramethylpiperidin-1-yl)oxidanyl	C9H18NO	
tert-BuLi, t-BuLi	tert-Butyllithium	LiC4H9	
TESOTf	Triethylsilyl-O-Trifluoracetat	C8H15O2F3Si	
TMEDA	Tetramethylethylenediamine	C6H16N2	
TosMIC	Toluenesulfonylmethyl isocyanide	C9H9NO2S	

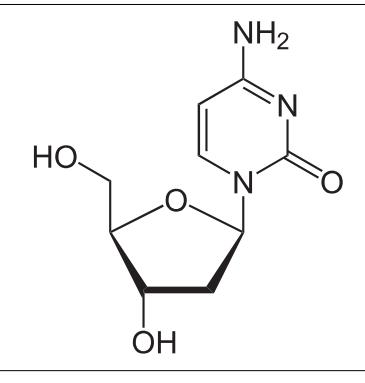
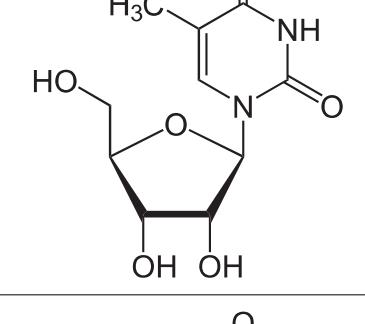
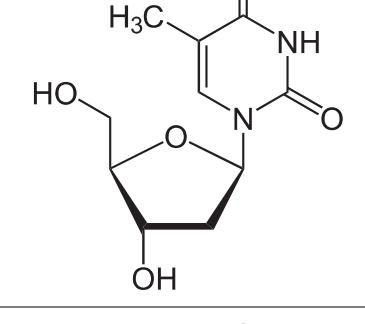
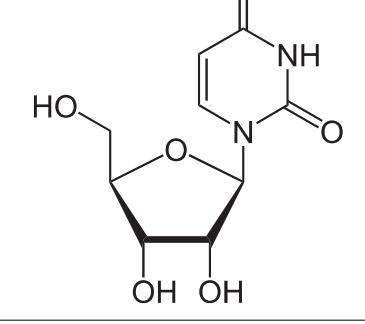
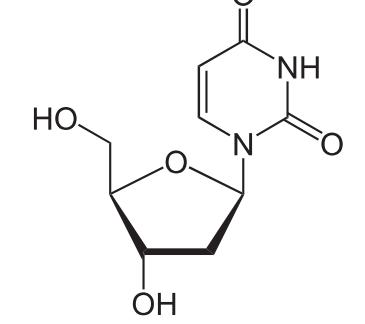
Compounds - Amino acids

Abbreviation	Chemical Name	Molecular Formula	Structure
Ala	Alanine	C3H7NO2	
Arg	Arginine	C6H14N4O2	
Asn	Asparagine	C4H8N2O3	
Asp	Aspartic acid	C4H7NO4	
Cys	Cysteine	C3H7NO2S	

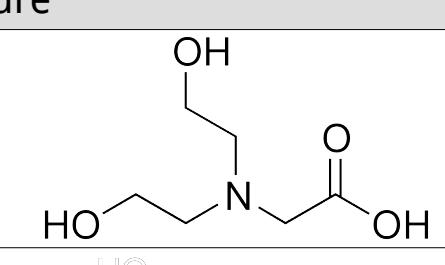
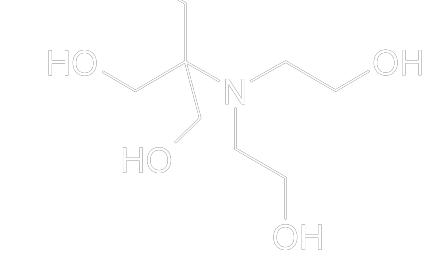
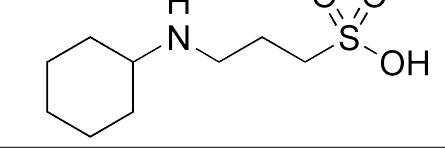
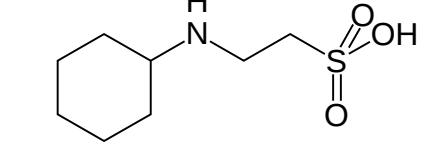
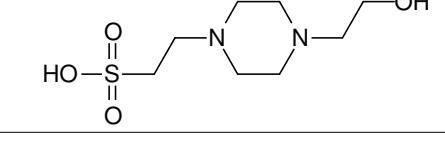
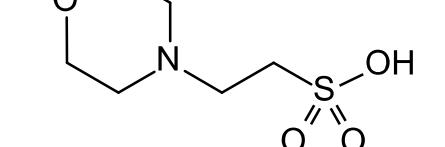
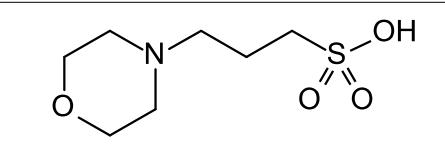
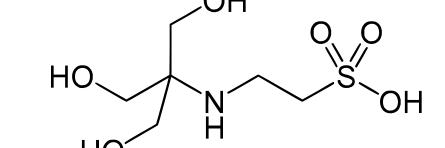
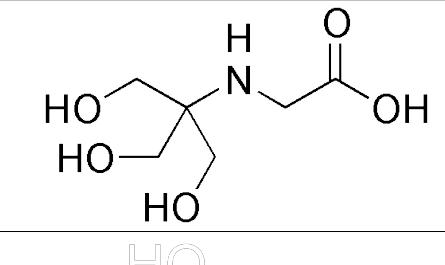
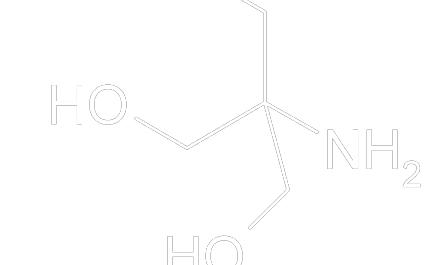
Gln	Glutamine	C5H10N2O3	
Glu	Glutamic acid	C5H9NO4	
Gly	Glycine	C2H5NO2	
His	Histidine	C6H9N3O2	
Ile	Isoleucine	C6H13NO2	
Leu	Leucine	C6H13NO2	
Lys	Lysine	C6H14N2O2	
Met	Methionine	C5H11NO2S	
Phe	Phenylalanine	C9H11NO2	
Pro	Proline	C5H9NO2	
Pyl	Pyrrolysine	C12H21N3O3	
Sec	Selenocysteine	C3H7NO2Se	
Ser	Serine	C3H7NO3	
Thr	Threonine	C4H9NO3	
Trp	Tryptophan	C11H12N2O2	
Tyr	Tyrosine	C9H11NO3	
Val	Valine	C5H11NO2	

Compounds - Nucleoside

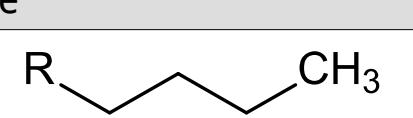
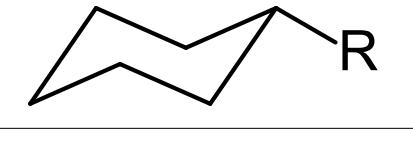
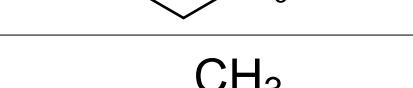
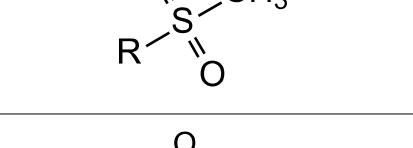
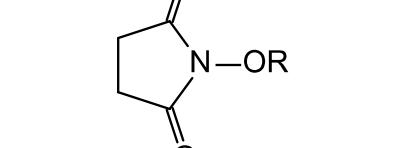
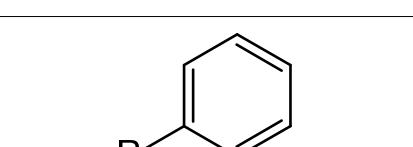
Abbreviation	Chemical Name	Molecular Formula	Structure
A	Adenosine	C10H13N5O4	
dA	Deoxyadenosine	C10H13N5O3	
G	Guanosine	C10H13N5O5	
dG	Deoxyguanosine	C10H13N5O4	
C	Cytidine	C9H13N3O5	

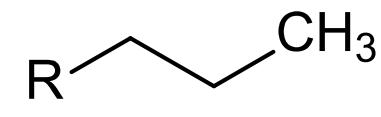
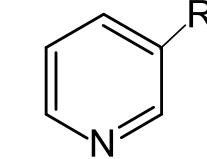
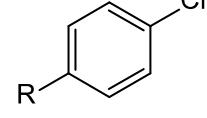
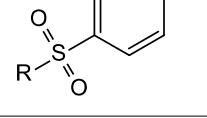
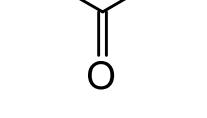
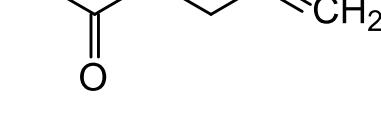
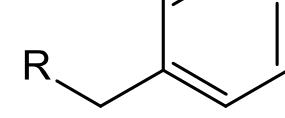
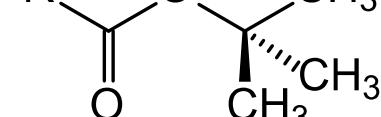
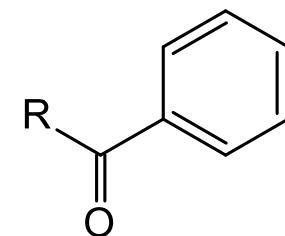
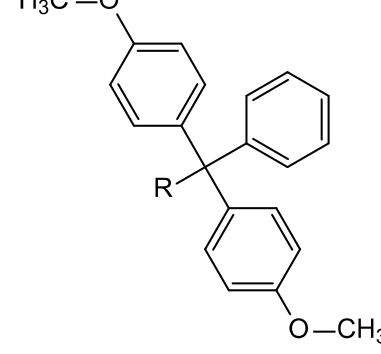
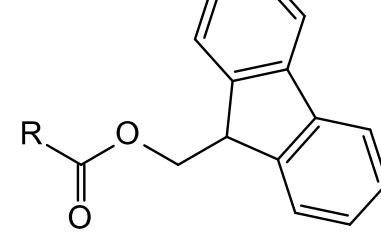
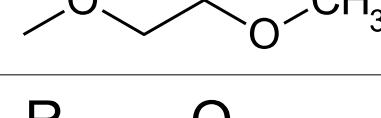
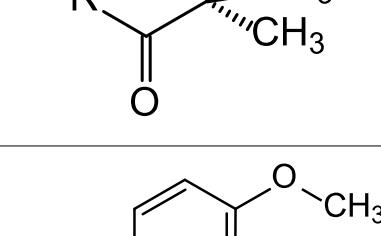
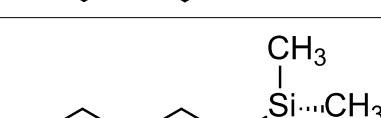
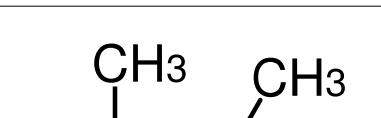
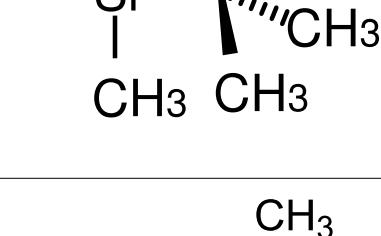
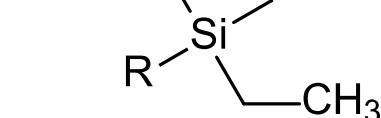
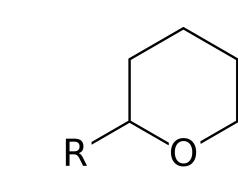
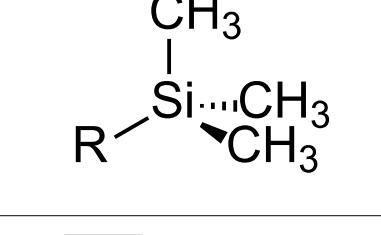
dC	Deoxycytidine	C9H13N3O4	
T	5-Methyluridine	C10H14N2O6	
dT	Thymidine	C10H14N2O5	
U	Uridine	C9H12N2O6	
dU	Deoxyuridine	C9H12N2O5	

Compounds - Biochemical buffer

Abbreviation	Chemical Name	Molecular Formula	Structure
BICINE	2-(Bis(2-hydroxyethyl)amino)acetic acid	C6H13O4N	
BisTris	Bis-tris methane	C8H19NO5	
CAPS	N-cyclohexyl-3-aminopropanesulfonic acid	C9H19NO3S	
CHES	N-Cyclohexyl-2-aminoethanesulfonic acid	C8H17NO3S	
HEPES	4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid	C8H18N2O4S	
MES	2-(N-morpholino)ethanesulfonic acid	C6H13NO4S	
MOPS	3-(N-morpholino)propanesulfonic acid	C7H15NO4S	
TES_fa	2-[[1,3-dihydroxy-2-(hydroxymethyl)propan-2-yl]amino]ethanesulfonic acid	C6H15NO6S	
TRICINE	N-(2-Hydroxy-1,1-bis(hydroxymethyl)ethyl)glycine	C6H13NO5	
TRIS	2-Amino-2-hydroxymethyl-propane-1,3-diol	C4H11NO3	

Functional Groups

Abbreviation	Chemical Name	Molecular Formula	Structure
Bu	n-Butyl	C4H9	
Cy	Cyclohexyl	C6H11	
Et	Ethyl	C2H5	
Me	Methyl	CH3	
Mes	Mesyl (methylsulfonyl)	CH3SO2	
OSu	O-succinimide	C4H4O3N	
Ph	Phenyl	C6H5	

Pr	Propyl	C3H7	
Py	Pyridyl	C5H4N	
Tol	Toloyl	C7H7	
Tos	Tosyl (P-Toluoisulfonyl)	C7H7SO2	
Ac	Acetyl	C2H3O	
Alloc	Allyloxycarbonyl	C4H5O2	
Bn, Bzl	Benzyl	C7H7	
Boc	tert-Butyloxycarbonyl	C5H9O2	
Bz	Benzoyl	C7H5O	
DMT	Dimethoxytrityl	C21H19O2	
Fmoc	Fluorenyloxycarbonyl	C15H11O2	
MEM	2-Methoxyethoxymethyl	C4H9O2	
MOM	Methoxymethyl	C2H5O	
Piv	Pivaloyl	C5H9O	
PMB	p-Methoxybenzyl	C8H9O	
SEM	β -(Trimethylsilyl)ethoxymethyl	C6H15OSi	
TBDMS, TBS	tert-Butyldimethylsilyl	C6H15Si	
TES	Triethylsilyl	C6H15Si	
THP	Tetrahydropyranyl	C5H9O	
TMS	Trimethylsilyl	C3H9Si	
Tr, Trt	Trityl (Triphenylmethyl)	C19H15	