Anorganische Verbindungen

1. Ionen

Hydrogencarbonat-Ion	HCO_3^-
Hydronium-Ion	H_3O^+
Carbonat-Ion	CO_3^{2-}
Hydroxid-Ion	OH^-
Hydrogenphosphat-Ion	HPO_4^{2-}
Dihydrogenphosphat-Ion	$H_2PO_4^-$
Nitrat-Ion	NO_3^-
Phosphat-Ion	PO_4^{3-}
Ammonium-Ion	NH_4^+
Permanganat-Ion	MnO_4^-
Chromat-Ion	CrO_4^{2-}
Dichromat-Ion	$Cr_2O_7^{2-}$

2. Komplexionen

Hexaammincobalt(II)-Kation	$[CO(NH_3)_6]^{2+}$
Hexaammincobalt(III)-Kation	$[CO(NH_3)_6]^{3+}$
Tetraamminkupfer(II)-Kation	$[Cu(NH_3)_4]^{2+}$
Diamminailber(I)-Kation	$[Ag(NH_3)_2]^+$
Tetrahydroxozinkat-Anion	$[Zn(OH)_4]^{2-}$
Hexacyanidoferrat(II)-Anion	$[Fe(CN)_6]^{4-}$
Tetrahydroxoaluminat(III)-Anion	$[Al(OH)_4]^-$
Teraaquakupfer(II)-Kation	$[Cu(H_2O)_4]^{2+}$

3. Salze

Magnesiumsulfat	$MgSO_4$
Natriumhydrogencarbonat	$NaHCO_3$
Bariumsulfat	$BaSO_4$
Calciumcarbonat	$CaCO_3$
Calciumoxalat	CaC_2O_4
Natriumcarbonat	Na_2CO_3
Kaliumcarbonat	K_2CO_3
Kaliumcyanid	KCN
Ammoniumchlorid	NH_4Cl
Kaliumnitrat	KNO_3
Natriumnitrat	$NaNO_3$
Silbernitrat	$AgNO_3$
Natriumdihydrogenphosphat	NaH_2PO_4
Dinatriumhydrogenphosphat	Na_2HPO_4
Natriumphosphat	Na_3PO_4
Kaliumdihydrogenphosphat	KH_2PO_4
Dikaliumhydrogenphosphat	K_2HPO_4
Tri-Kaliumphosphat	K_3PO_4

Calciumphosphat	$Ca_3(PO_4)_2$
Natriumsulfat	Na_2SO_4
Natriumsulfit	Na_2SO_3
Natriumchlorid	NaCl
Natriumiodid	NaI
Kaliumbromid	KBr
Calciumfluorid	CaF_2
Calciumchlorid	$CaCl_2$
Bariumchlori	$BaCl_2$
Silberchlorid	AgCl
Eisen(III)chlorid	$FeCl_3$
Eisen(II)sulfat	$FeSO_4$
Zinksulfat	$ZnSO_4$
Kupfer(II)sulfat	$CuSO_4$
Calciumsulfat	$CaSO_4$

4. Säuren

Oxalsäure	$C_2H_2O_4$
Kohlensäure	H_2CO_3
Salpetersäure	HNO_3
Blausäure	HCN
Phosphorsäure	H_3PO_4
Schwefelwasserstoff	H_2S
Schwefelsäure	H_2SO_4
schweflige Säure	H_2SO_3
Chlorwasserstoff	HCl
Perchlorsäure	$HClO_4$

5. Basen

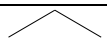
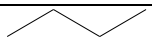
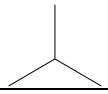
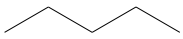
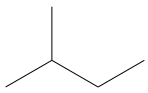
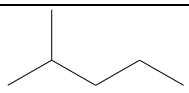
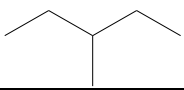
Natriumhydroxid (nur nach Arrhenius)	NaOH
Kaliumhydroxid (nur nach Arrhenius)	KOH
Calciumhydroxid (nur nach Arrhenius)	$Ca(OH)_2$
Magnesiumhydroxid (nur nach Arrhenius)	$Mg(OH)_2$
Ammoniak	NH_3

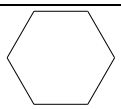
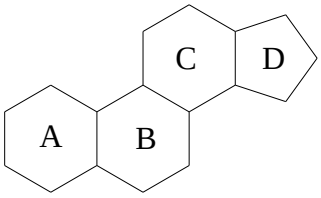
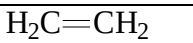
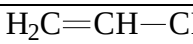
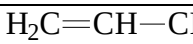
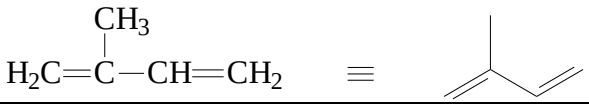
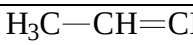
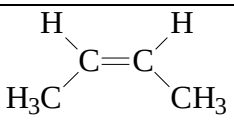
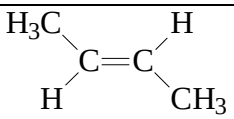
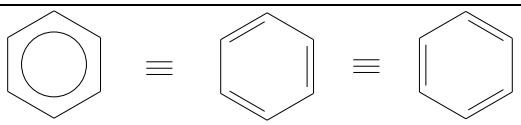
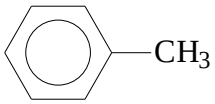
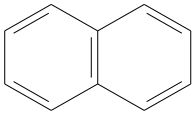
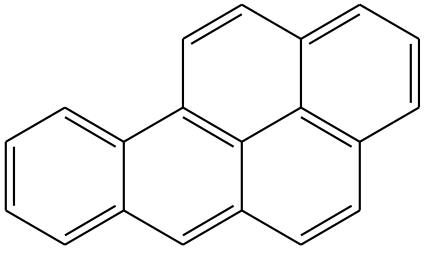
6. Molekülverbindung

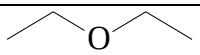
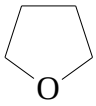
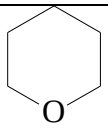
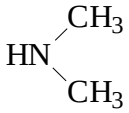
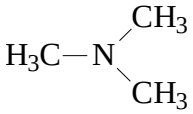
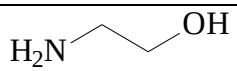
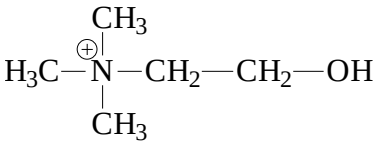
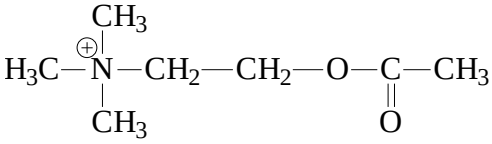
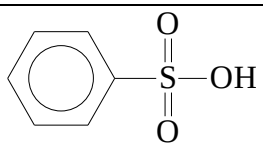
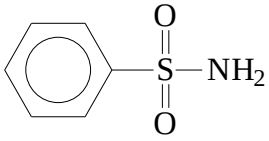
Wasser	H_2O
Sauerstoff	O_2
Ozon	O_3
Wasserstoff	H_2
Wasserstoffperoxid	H_2O_2
Fluorwasserstoff	HF
Iodwasserstoff	HI
Kohlendioxid	CO_2
Kohlenmonoxid	CO
Stickstoff Stickstoffmonoxid Distickstoffmonoxid	N_2 NO N_2O
Schwefeldioxid	SO_2
Chlor	Cl_2
Brom	Br_2
Iod	I_2
Eisensulfid	FeS

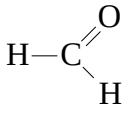
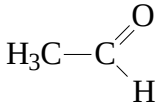
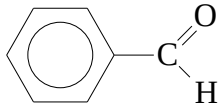
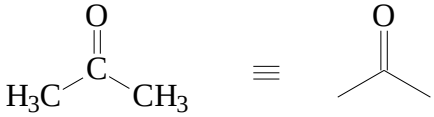
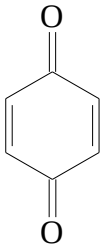
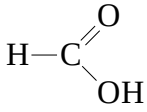
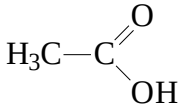
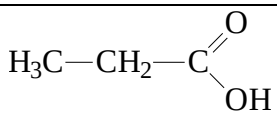
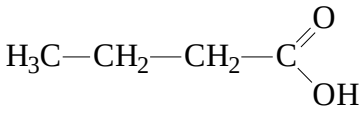
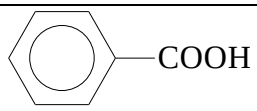
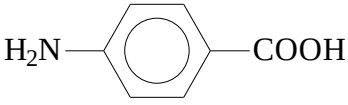
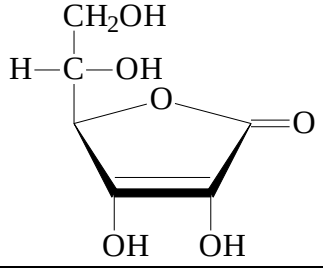
Organische Verbindungen

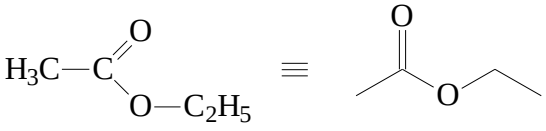
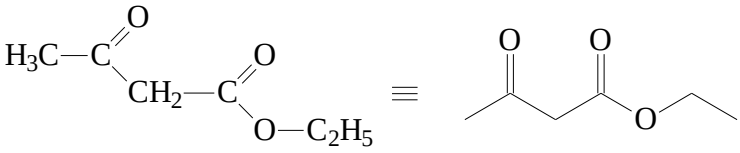
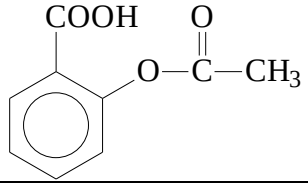
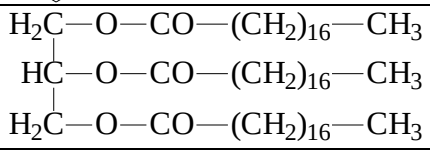
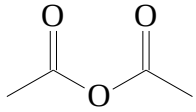
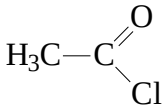
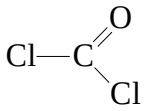
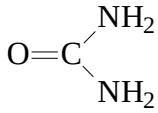
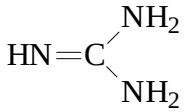
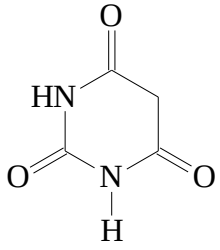
1. Kohlenwasserstoffe

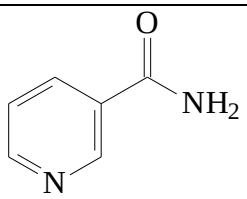
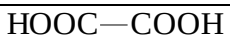
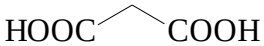
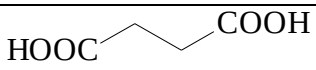
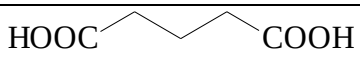
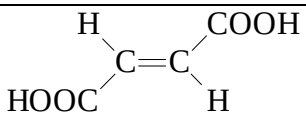
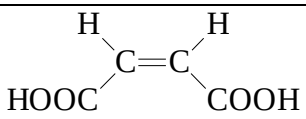
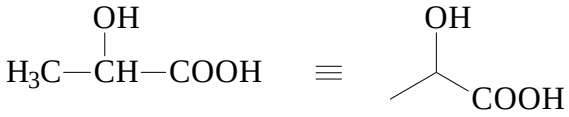
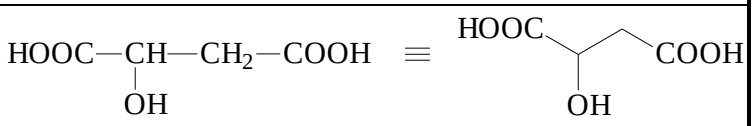
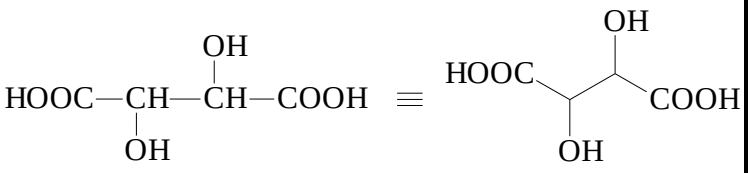
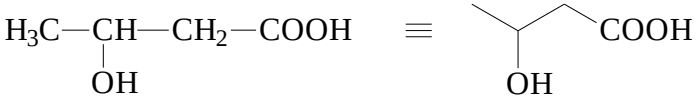
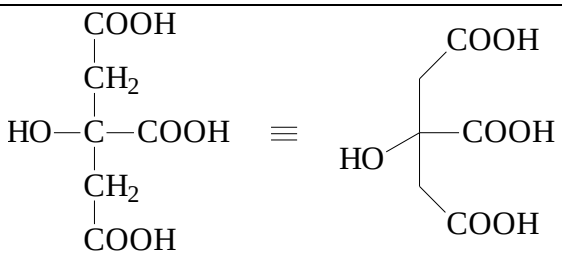
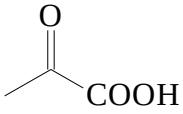
Alkane	
Methan	CH_4
Ethan	$H_3C—CH_3$
Propan	$H_3C—CH_2—CH_3$ ≡ 
n-Butan	$H_3C—CH_2—CH_2—CH_3$ ≡ 
2-Methyl-propan ≡ Isobutan	$H_3C—\underset{\displaystyle CH_3}{\underset{\vert}{CH}}—CH_3$ ≡ 
n-Pentan	$H_3C—CH_2—CH_2—CH_2—CH_3$ ≡ 
2-Methyl-butan ≡ Isopentan	$H_3C—\underset{\displaystyle CH_3}{\underset{\vert}{CH}}—CH_2—CH_3$ ≡ 
2,2-Dimethyl-propan ≡ Neopentan	$H_3C—\underset{\displaystyle CH_3}{\underset{\vert}{\overset{\displaystyle CH_3}{\overset{\vert}{C}}}}—CH_3$ ≡ 
n-Hexan	$H_3C—CH_2—CH_2—CH_2—CH_2—CH_3$
2-Methyl-pentan ≡ Isohexan	$H_3C—\underset{\displaystyle CH_3}{\underset{\vert}{CH}}—CH_2—CH_2—CH_3$ ≡ 
3-Methyl-pentan	$H_3C—CH_2—\underset{\displaystyle CH_3}{\underset{\vert}{CH}}—CH_2—CH_3$ ≡ 

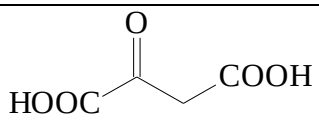
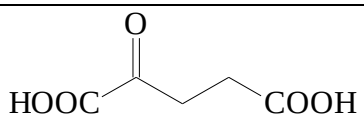
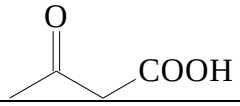
Cyclopropan	
Cyclobutan	
Cyclopentan	
Cyclohexan	
Steran (Gonan)	
Alkene	
Ethen	
Propen	
Buta-1,3-dien (1,3-Butadien)	
Isopren ≡ 2-Methyl-buta-1,3-dien	
But-2-en	
cis-Buten (Z-But-2-en)	
trans-Buten (E-But-2-en)	
Aromaten	
Benzen (Benzol)	
Toluen (Toluol)	
Naphthalin	
Benzo(a)pyren	

Halogenkohlenwasserstoffe	
Chloroform ≡ Trichlormethan	$CHCl_3$
Tetrachlorkohlenstoff	CCl_4
Methyliodid ≡ Iodmethan	CH_3I
Thiole (Mercaptane)	
Ethanthiol	$H_3C—CH_2—SH$
Ether	
Diethylether	$H_3C—CH_2—O—CH_2—CH_3$ ≡ 
Tetrahydrofuran	
Tetrahydropyran	
Amine	
Methylamin	$H_3C—NH_2$
Dimethylamin	
Trimethylamin	
Ethanolamin	$H_2N—CH_2—CH_2—OH$ ≡ 
Cholin	
Acetylcholin	
Sulfonsäuren	
Benzolsulfonsäure	
Sulfonsäureamide (z.B. Benzolsulfonsäureamid)	

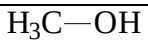
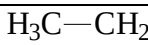
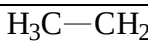
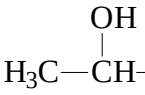
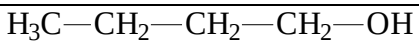
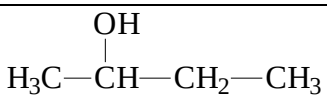
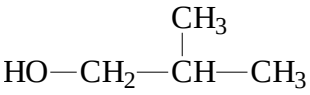
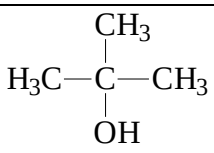
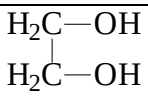
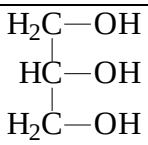
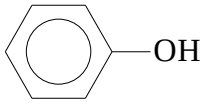
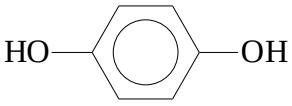
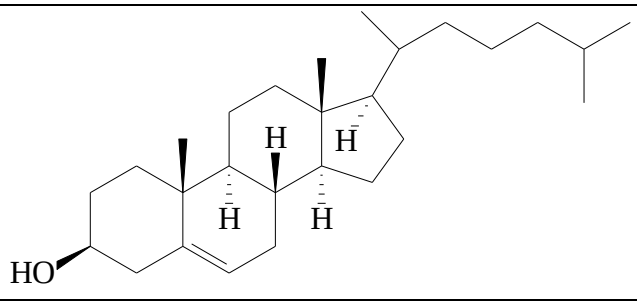
Aldehyde, Ketone	
Formaldehyd	
Acetaldehyd	
Benzaldehyd	
Aceton	
Chinone	
p-Benzochinon	
Carbonsäuren (Anion)	
Ameisensäure (Formiat)	
Essigsäure (Acetat)	
Propionsäure (Propionat) ≡ Propansäure	
n-Buttersäure (Butyrat) ≡ Butansäure	
Benzoesäure (Benzoat) (FS)	
p-Aminobenzoesäure [PABS]	
Ascorbinsäure (Vitamin C)	

Carbonsäureester	
Essigsäureethylester	
Acetessigsäureethylester	
Acetylsalicylsäure	
Tristearin	
Säureanhydride	
Acetanhydrid	
Säurechloride	
Acetylchlorid	
Phosgen -erkennen-	
Säureamide	
Harnstoff	
Guanidin	
Barbitursäure	

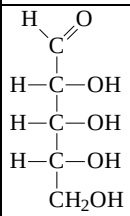
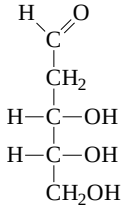
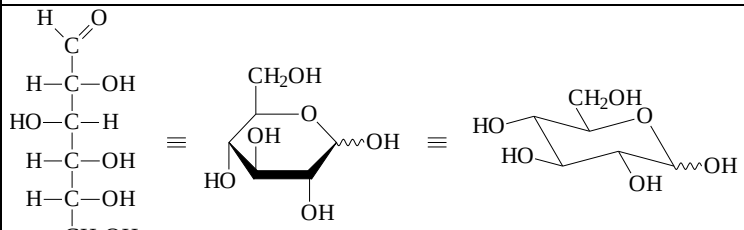
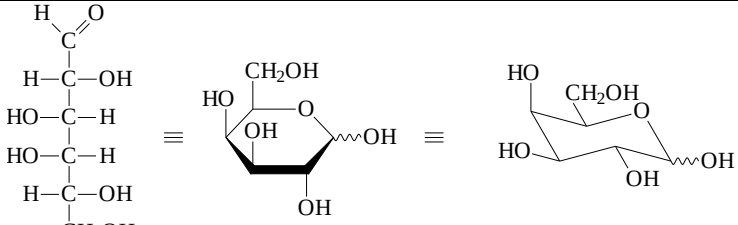
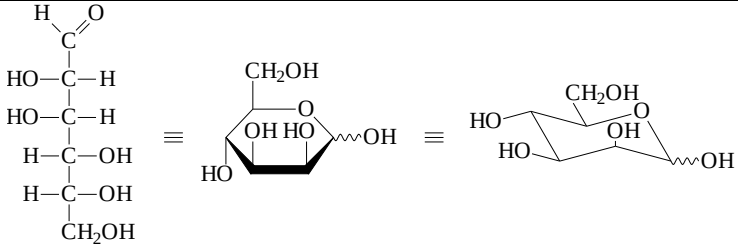
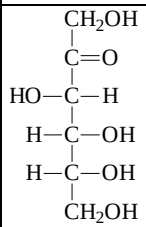
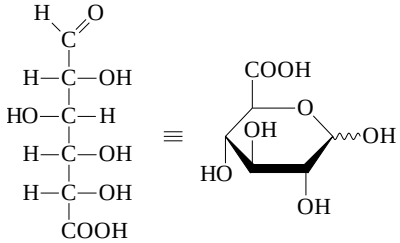
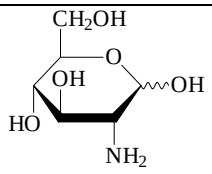
Nikotinsäureamid	
Dicarbonsäuren (Anion)	
Oxalsäure (Oxalat)	
Malonsäure (Malonat)	
Bernsteinsäure (Succinat)	
Glutarsäure (Glutarat)	
Fumarsäure (Fumarat)	
Maleinsäure (Maleat)	
Hydroxy- und Ketocarbonsäuren (Anion)	
Milchsäure (Lactat)	Zitronensäure 
Äpfelsäure (Malat)	
Weinsäure (Tartrat)	
3-Hydroxybuttersäure (3-Hydroxybutyrat)	
Zitronensäure (Citrat)	
Brenztraubensäure (Pyruvat)	

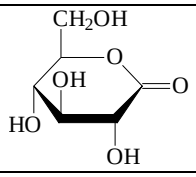
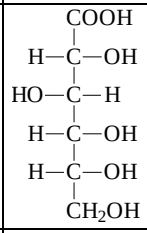
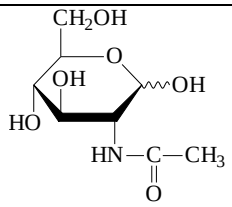
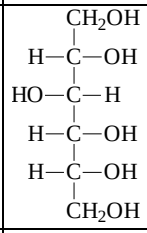
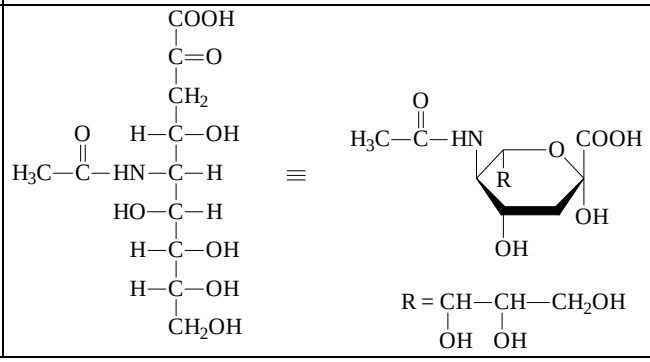
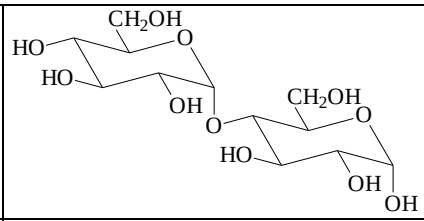
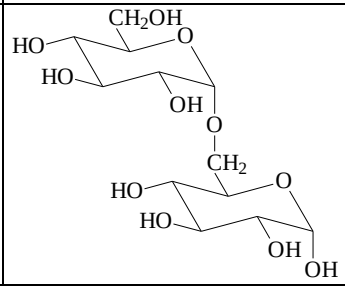
Oxalessigsäure	
α-Ketoglutarsäure	
Acetessigsäure	

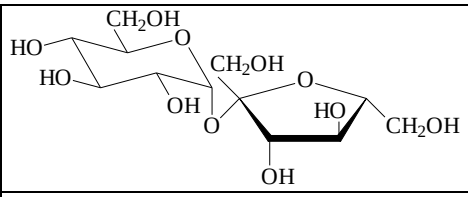
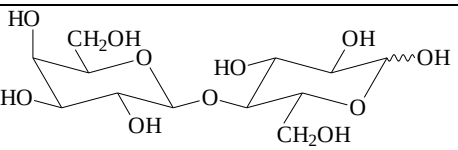
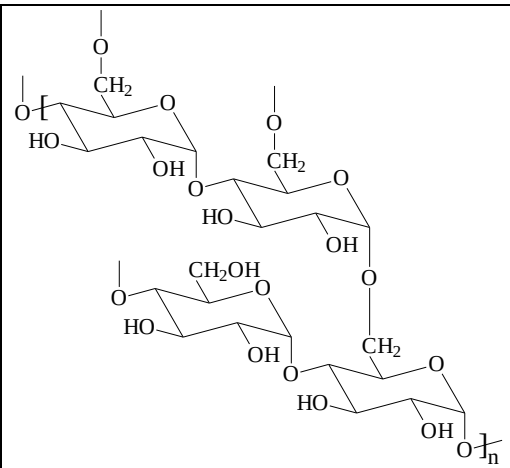
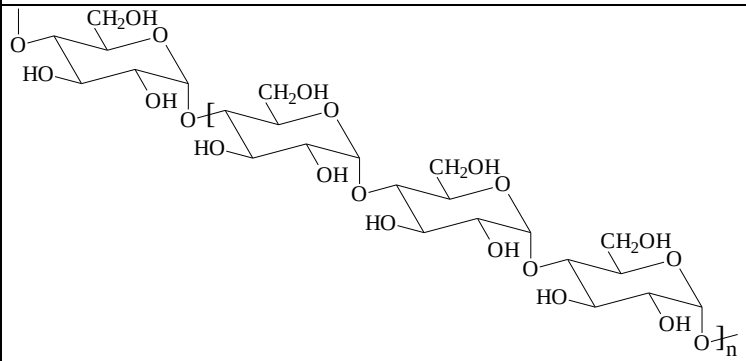
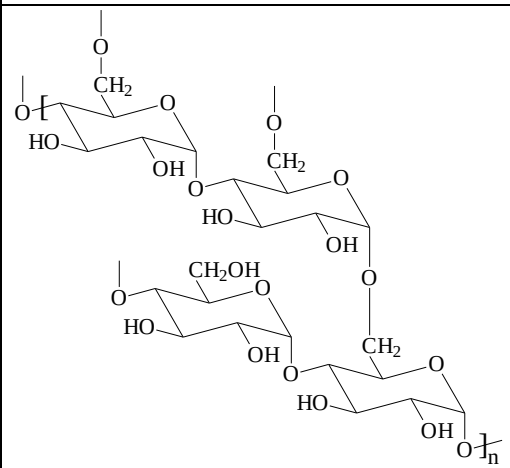
2. Alkohole/Phenole

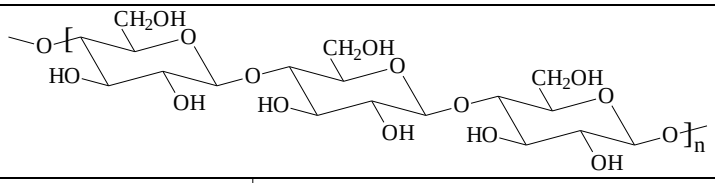
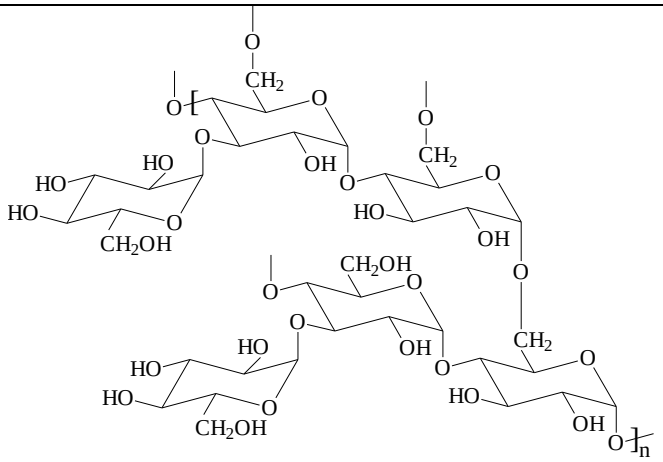
Methanol	
Ethanol	
Propan-1-ol ≡ n-Propanol	
Propan-2-ol (iso-Propanol)	
Butan-1-ol ≡ n-Butanol	
Butan-2-ol (2-Butanol)	
2-Methyl-propan-1-ol (2-Methyl-1-propanol) ≡ Isobutylalkohol	
2-Methyl-propan-2-ol (2-Methyl-2-propanol)	
Glykol ≡ Ethan-1,2-diol	
Glycerin (Glycerol) ≡ Propan-1,2,3-triol	
Phenol	
Hydrochinon	
Cholesterin (Cholesterol)? -nur erkennen-	

3. Kohlenhydrate

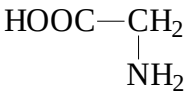
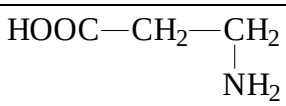
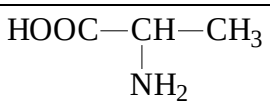
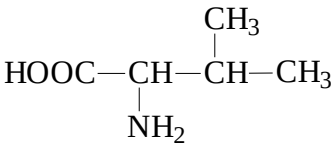
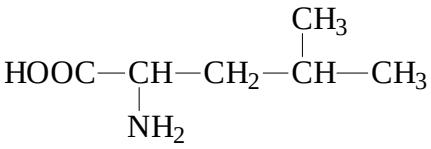
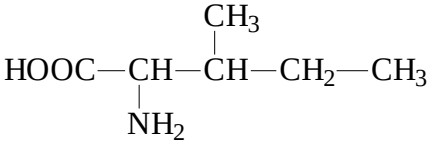
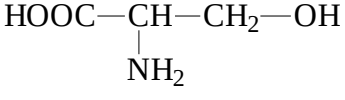
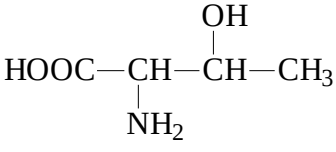
Monosaccharide	
D-Ribose	
D-Desoxyribose	
D-Glucose (Glc)	
D-Galactose(Gal)	
D-Mannose	
D-Fructose (Fru)	
Glucuronsäure	
Glucosamin	

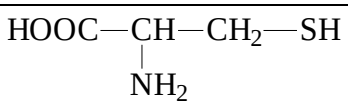
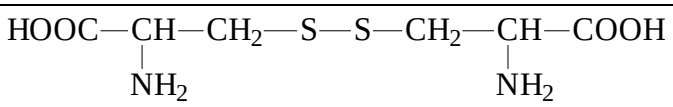
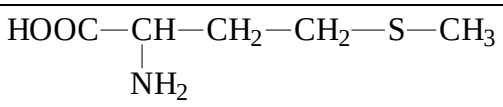
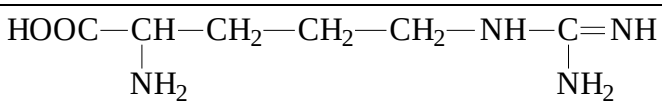
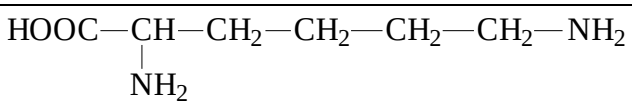
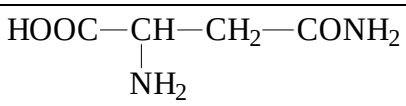
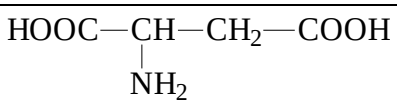
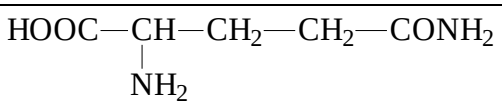
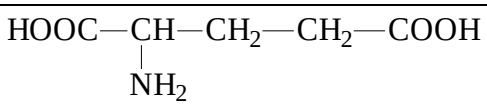
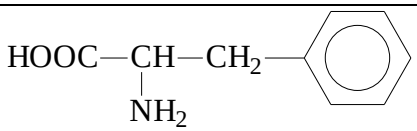
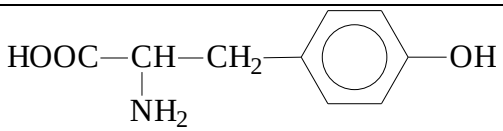
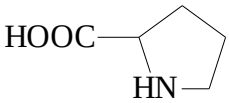
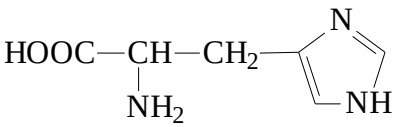
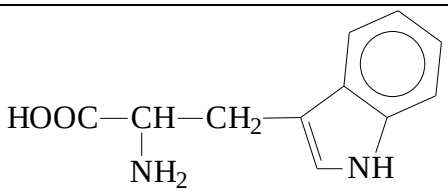
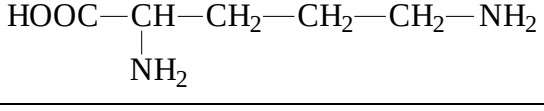
Gluconolacton -nur erkennen-	
Gluconsäure	
N-Acetyl-glucosamin	
Sorbit	
N-Acetylneuraminsäure -nur erkennen-	
Disaccharide	
Maltose (α-Glc-1,4-Glc) -Verknüpfung und Bausteine merken-	
Isomaltose (α-Glc-1,6-Glc) -Verknüpfung und Bausteine merken-	

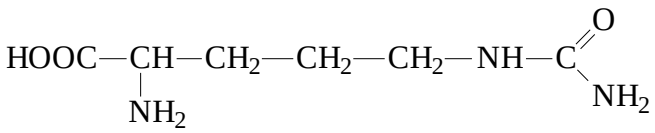
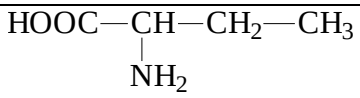
Saccharose (α-Glc-1,2-β-Fru)	
Lactose (β-Gal-1,4-Glc)	
Polysaccharide -nur Bausteine und Verknüpfung-	
Glykogen (Glc α-1,4 und α-1,6) (stärker verzweigt als Amylopektin, sehr hohe Molmasse) M: 5-15 Mill. (auf 8-16 gleiche Bausteine eine verzweigte Stelle)	
Stärke (Amylose und Amylopektin)	
Amylose (Glc α-1,4) M: 50000-160000	
Amylopektin (Glc α-1,4 und α-1,6) (auf 18-27 Monosaccharid-Bausteine eine Verzweigungsstelle) M: 400000	

Cellulose (Glc β-1,4)	
Dextran (Glc α-1,3, α-1,4 und α-1,6)	
Inulin (Fru β-glykosidisch)	

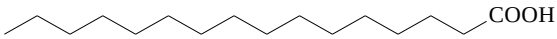
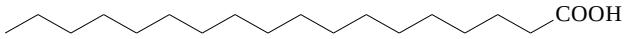
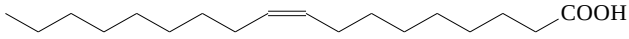
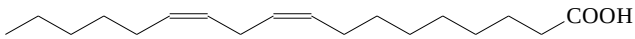
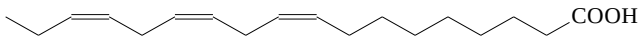
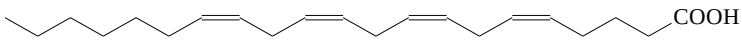
4. Aminosäuren

Glycin (Gly)	
β-Alanin	
Alanin (Ala)	
Valin (Val)	
Leucin (Leu)	
Isoleucin (Ile)	
Serin (Ser)	
Threonin (Thr)	

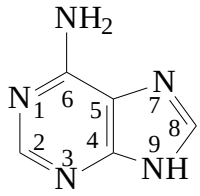
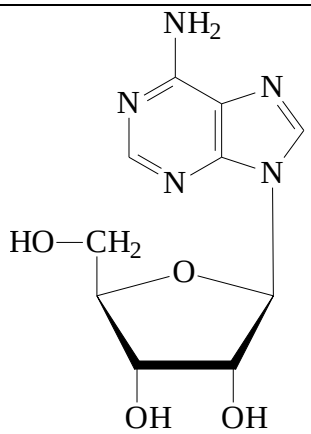
Cystein (Cys)	
Cystin	
Methionin (Met)	
Arginin (Arg)	
Lysin (Lys)	
Asparagin (Asn)	
Asparaginsäure (Asp)	
Glutamin (Gln)	
Glutaminsäure (Glu)	
Phenylalanin (Phe)	
Tyrosin (Tyr)	
Prolin (Pro)	
Histidin (His)	
Tryptophan (Trp)	
Ornithin	

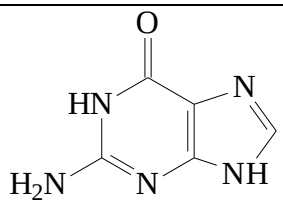
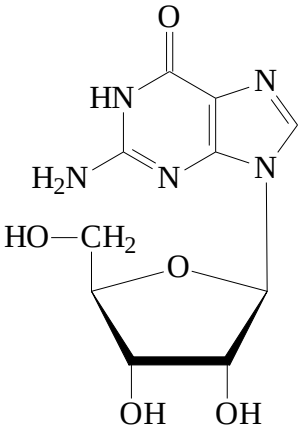
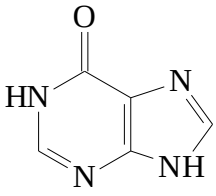
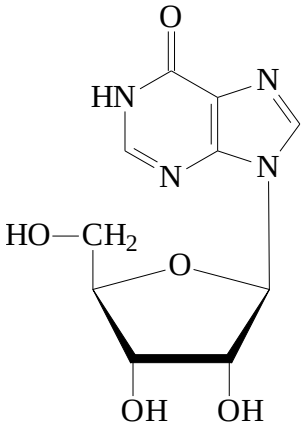
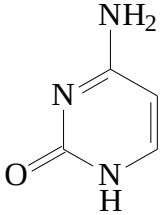
Citrullin	
γ-Aminobuttersäure (GABA)	

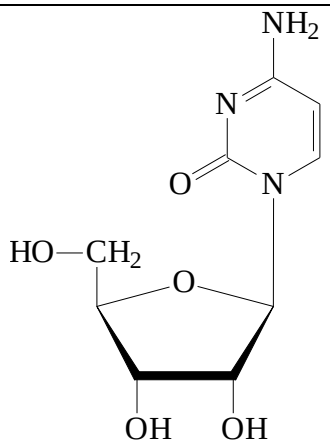
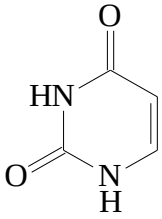
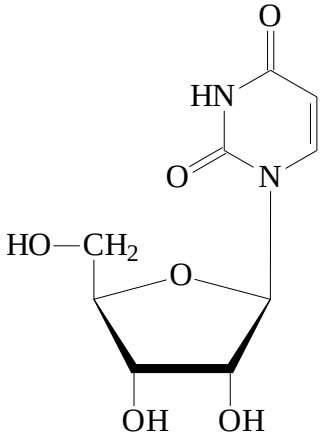
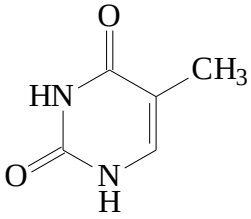
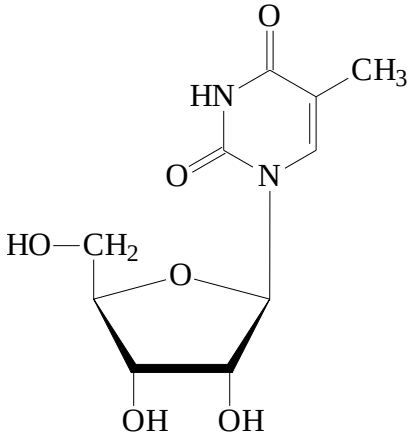
5. Fette/Fettsäuren

Palmitinsäure (Palmitat) ≡ Hexadecansäure(FS)	
Stearinsäure (Stearat) ≡ Octadecansäure(FS)	
Ölsäure (Oleat) ≡ cis-Octadec-9-ensäure ≡ Oleinsäure(FS)	
Linolsäure ≡ Z,Z-Octadec-9,12-diensäure(FS)	
Linolensäure ≡ Z,Z,Z-Octadeca-9,12,15-triensäure(FS)	
Arachidonsäure ≡ Z,Z,Z,Z-Eicosa-5,8,11,14-tetraensäure(FS)	

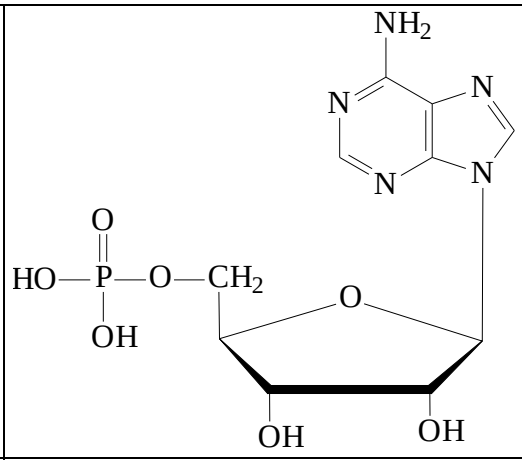
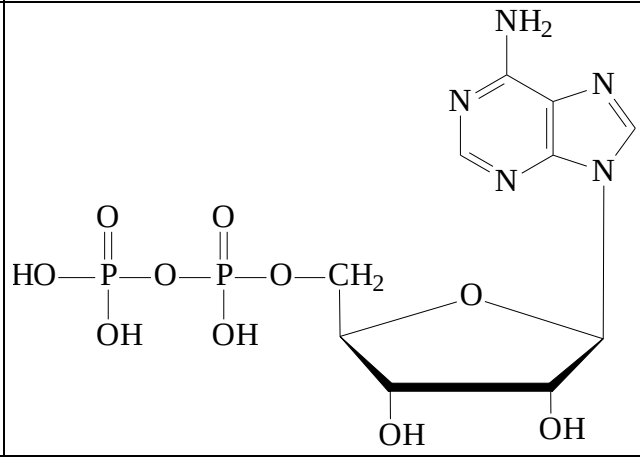
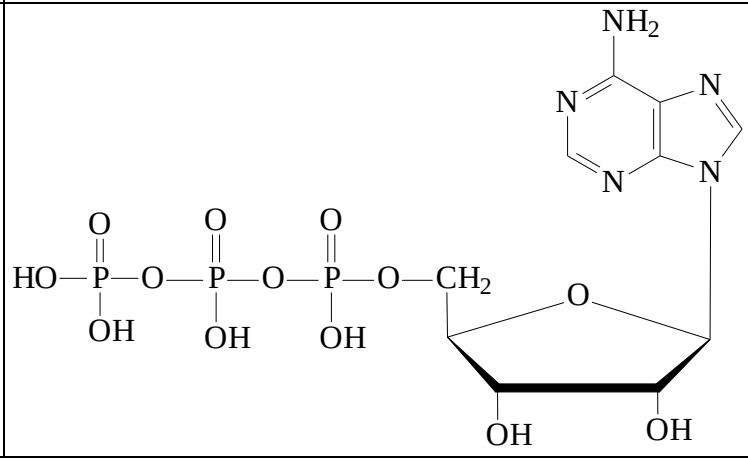
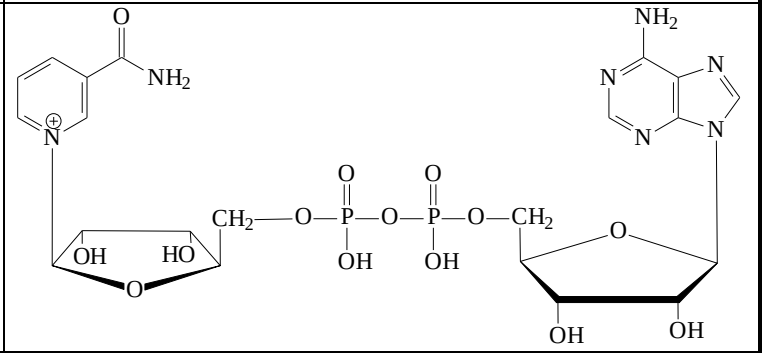
6.1 Nucleoside -Strukturen erkennen-

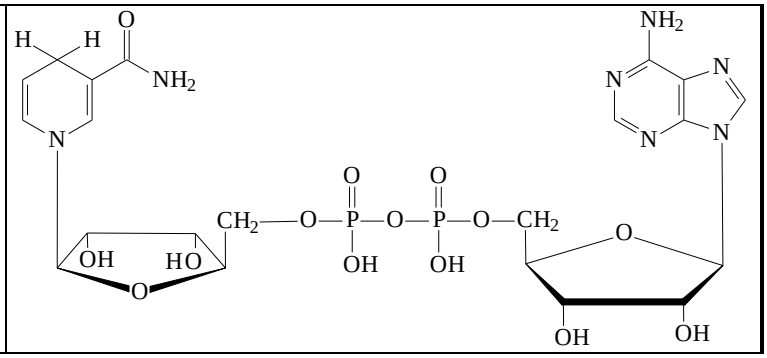
Purin-Derivate	
Adenin (Ade)	
Adenosin (A)	

Guanin (Gua)	
Guanosin (G)	
Hypoxanthin (Hyp)	
Inosin (I)	
Pyrimidin-Derivate -Strukturen erkennen-	
Cytosin (Cyt)	

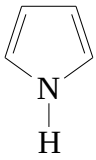
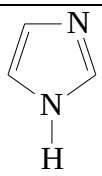
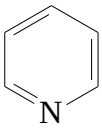
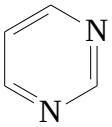
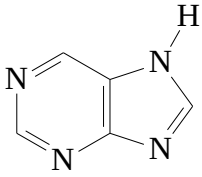
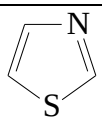
Cytidin (C)	
Uracil (Ura)	
Uridin (U)	
Thymin (Thy)	
Thymidin (dT)	

6.2 Nucleotide -Strukturen erkennen, Bausteine u. deren Verknüpfung kennen-

Adenosinmonophosphat (AMP)	
Adenosindiphosphat (ADP)	
Adenosintriphosphat (ATP)	
Nicotinamidadenindinucleotid (NAD^+)	

NADH	

7. Heterocyclen -nur erkennen-

Pyrrol	
Imidazol	
Pyridin	
Pyrimidin	
7*H*-Purin	
Thiazol	
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