

Ketone

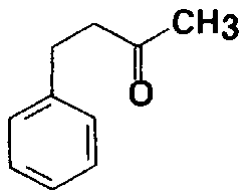
1 Aliphatische und araliphatische Ketone

Unverzweigte Alkanone

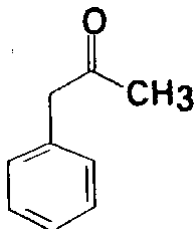
| | | | |
|---------------|--|---------------------------------|-----------------------------------|
| Propanon | $\text{CH}_3\text{-CO-CH}_3$ | <i>Dimethylketon, Aceton</i> | F.-95°C, Kp.56,1°C, D.0,795 |
| Butan-2-on | $\text{CH}_3\text{-CO-CH}_2\text{-CH}_3$ | <i>Methyläthylketon</i> | F.-86°C, Kp.79,6°C, D.0,805 |
| Pentan-2-on | $\text{CH}_3\text{-CO-(CH}_2)_2\text{-CH}_3$ | <i>Methyl-n-propylketon</i> | F.-83,5°C, Kp.102°C, D.0,812 |
| Pentan-3-on | $\text{CH}_3\text{-CH}_2\text{-CO-CH}_2\text{-CH}_3$ | <i>Diethylketon, Propion</i> | F.-42°C, Kp.101,7°C, D.0,816 |
| Hexan-2-on | $\text{CH}_3\text{-CO-(CH}_2)_3\text{-CH}_3$ | <i>Methyl-n-butylketon</i> | F.-56,9°C, Kp.127°C, D.0,830(0°C) |
| Hexan-3-on | $\text{CH}_3\text{-CH}_2\text{-CO-(CH}_2)_2\text{-CH}_3$ | <i>Ethyl-n-propylketon</i> | Kp.123°C, D.0,815 |
| Heptan-2-on | $\text{CH}_3\text{-CO-(CH}_2)_4\text{-CH}_3$ | <i>Methyl-n-amylketon</i> | F.-35°C, Kp.149°C, D.0,820 |
| Heptan-3-on | $\text{CH}_3\text{-CH}_2\text{-CO-(CH}_2)_3\text{-CH}_3$ | <i>Ethylbutylketon</i> | F.-39°C, Kp.148°C, D.0,818 |
| Heptan-4-on | $\text{CH}_3\text{-(CH}_2)_2\text{-CO-(CH}_2)_2\text{-CH}_3$ | <i>Di-n-propylketon</i> | F.-34°C, Kp.144°C, D.0,817 |
| Octan-2-on | $\text{CH}_3\text{-CO-(CH}_2)_5\text{-CH}_3$ | <i>Methylhexylketon</i> | F.-16°C, Kp.173°C, D.0,818 |
| Octan-3-on | $\text{CH}_3\text{-(CH}_2)_4\text{-CO-CH}_2\text{-CH}_3$ | <i>Amylethylketon</i> | Kp.167°C, D.0,822 |
| Nonan-2-on | $\text{CH}_3\text{-CO-(CH}_2)_6\text{-CH}_3$ | <i>Methylheptylketon</i> | F.-8,2°C, Kp.195°C, D.0,825 |
| Nonan-3-on | $\text{CH}_3\text{-(CH}_2)_5\text{-CO-CH}_2\text{-CH}_3$ | <i>Ethylhexylketon</i> | Kp.187°C, D.0,821 |
| Nonan-5-on | $\text{CH}_3\text{-(CH}_2)_3\text{-CO-(CH}_2)_3\text{-CH}_3$ | <i>Di-n-butylketon, Valeron</i> | F.-50°C, Kp.186°C, D.0,826 |
| Decan-2-on | $\text{CH}_3\text{-CO-(CH}_2)_7\text{-CH}_3$ | <i>Methyloctylketon</i> | F.3,5°C, Kp.211°C, D.0,825 |
| Decan-3-on | $\text{CH}_3\text{-(CH}_2)_6\text{-CO-CH}_2\text{-CH}_3$ | <i>Ethylheptylketon</i> | F.-3,8°C, Kp.204°C, D.0,825 |
| Decan-4-on | $\text{CH}_3\text{-(CH}_2)_2\text{-CO-(CH}_2)_5\text{-CH}_3$ | <i>Hexylpropylketon</i> | Kp.206°C, D.0,824 |
| Undecan-2-on | $\text{CH}_3\text{-CO-(CH}_2)_8\text{-CH}_3$ | <i>Methylnonylketon</i> | F.12°C, Kp.231°C, D.0,825 |
| Undecan-6-on | $\text{CH}_3\text{-(CH}_2)_4\text{-CO-(CH}_2)_4\text{-CH}_3$ | <i>Di-n-amylketon</i> | |
| Tridecan-7-on | $\text{CH}_3\text{-(CH}_2)_5\text{-CO-(CH}_2)_5\text{-CH}_3$ | <i>Di-n-hexylketon</i> | F.33°C, Kp.264°C |

Verzweigte Alkanone

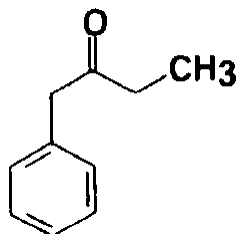
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|--------------------------|--|-----------------------------|----------------------------------|
| 3,3-Dimethylbutan-2-on | $\text{H}_3\text{C-C(CH}_3)_2\text{-CO-CH}_3$ | <i>Pinakon</i> | F.-52,5°C Kp.106°C D.0,800 |
| 3-Methylbutan-2-on | $\text{H}_3\text{C-CH(CH}_3\text{)-CO-CH}_3$ | <i>Methylisopropylketon</i> | F.-92°C, Kp.94°C, D.0,803, LW6 |
| 4-Methylpentan-2-on | $\text{H}_3\text{C-CH(CH}_3\text{)-CH}_2\text{-CO-CH}_3$ | <i>iso-Butylmethylketon</i> | F.-84°C, Kp.116°C, D.0,801, LW19 |
| 2,4-Dimethylpentan-3-on | $\text{H}_3\text{C-CH(CH}_3\text{)-CO-CH(CH}_3\text{)-CH}_3$ | <i>Diisopropylketon</i> | F.-34°C, Kp.125°C, D.0,803 |
| 2-Methylheptan-3-on | $\text{H}_3\text{C-(CH}_2)_3\text{-CO-CH(CH}_3\text{)-CH}_3$ | <i>Butylisopropylketon</i> | D.0,814 |
| 5-Methylheptan-3-on | $\text{H}_3\text{C-CH}_2\text{-CH(CH}_3\text{)-CH}_2\text{-CO-CH}_2\text{-CH}_3$ | <i>iso-Amyläthylketon</i> | Kp.160°C, D.0,821, LW3 |
| 2,6-Dimethyl-heptan-4-on | $\text{H}_3\text{C-CH(CH}_3\text{)-CH}_2\text{-CO-CH}_2\text{-CH(CH}_3\text{)-CH}_3$ | <i>Diisobutylketon</i> | F.-46°C, Kp.168°C, D.0,808 |



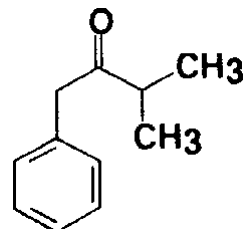
4-Phenylbutan-2-on
Benzylacetone
Kp.235°C, D.0,987



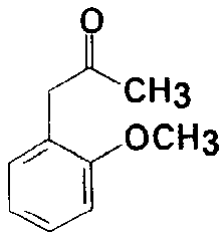
1-Phenylpropan-2-on
Benzylmethylketone
D.1,003



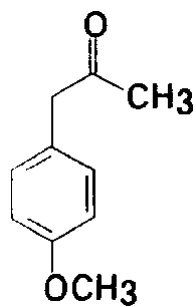
1-Phenylbutan-2-on
Benzyläthylketone
D.0,992



1-Phenyl-3-methylbutan-2-on
Benzylisopropylketone
Kp.237°C, D.0,969



1-(2-Methoxyphenyl)-propan-2-on
D.1,065



1-(4-Methoxyphenyl)-propan-2-on
D.1,065

2

Aliphatische Ketone mit weiteren Substituenten

Halogenierte Alkanone (halogenierte Ketone)

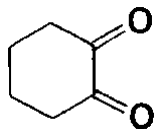
| | | | |
|---------------------------|---|--------------------------------|------------------------------------|
| Brompropan-2-on | $\text{BrCH}_2\text{-CO-CH}_3$ | <i>Bromaceton</i> | F. -54°C, Kp. 138°C (Z.), D. 1,622 |
| Chlorpropan-2-on | $\text{ClCH}_2\text{-CO-CH}_3$ | <i>Chloraceton</i> | F. -44,5°C, Kp. 120°C, D. 1,162 |
| 1,1-Dichlorpropan-2-on | $\text{HCCl}_2\text{-CO-CH}_3$ | <i>Dichloraceton</i> | F. -45°C, Kp. 120°C, D. 1,236 |
| 1,3-Dichlorpropan-2-on | $\text{ClCH}_2\text{-CO-CH}_2\text{Cl}$ | <i>1,3-Dichloraceton</i> | F. 40°C, Kp. 172°C, LW. 28 |
| 1,1,1-Tribrompropan-2-on | $\text{Br}_3\text{C-CO-CH}_3$ | <i>1,1,1-Tribromaceton</i> | |
| 1,1,3-Trichlorpropan-2-on | $\text{CH}_2\text{Cl-CO-CHCl}_2$ | <i>1,1,3-Trichloraceton</i> | F. 9°C, D. 1,531 |
| Hexachlorpropan-2-on | $\text{CCl}_3\text{-CO-CCl}_3$ | <i>Hexachloraceton</i> | F. -3°C, Kp. 204°C, D. 1,741 |
| 3-Chlorbutan-2-on | $\text{CH}_3\text{-CHCl-CO-CH}_3$ | <i>1-Chloräthylmethylketon</i> | Kp. 116°C, D. 1,056 |

Hydroxyalkanone (Hydroxyketone)

| | | | |
|-------------------------------|---|------------------------|-------------------------------|
| 1-Hydroxypropan-2-on | $\text{CH}_3\text{-CO-CH}_2\text{OH}$ | <i>Acetol</i> | F. -17°C, Kp. 145°C, D. 1,082 |
| 3-Hydroxybutan-2-on | $\text{CH}_3\text{-CH(OH)-CO-CH}_3$ | <i>Acetoin</i> | Kp. 148°C |
| 4-Hydroxybutan-2-on | $\text{CH}_2\text{OH-CH}_2\text{-CO-CH}_3$ | | |
| 4-Hydroxy-4-methylpentan-2-on | $\text{CH}_3\text{-C(CH}_3\text{)(OH)-CH}_2\text{-CO-CH}_3$ | | F. -47°C, Kp. 166°C, D. 0,937 |
| 1,3-Dihydroxypropan-2-on | $\text{CH}_2\text{OH-CO-CH}_2\text{OH}$ | <i>Dihydroxyaceton</i> | F. 80°C |

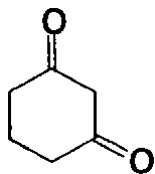
3

Alicyclische Ketone



1,2-Cyclohexandion

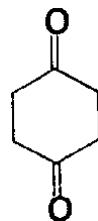
F.36°C



1,3-Cyclohexandion

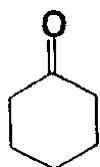
Dihydroresorcin

F.102°C



1,4-Cyclohexandion

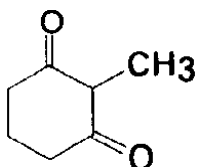
F.77°C



Cyclohexanon

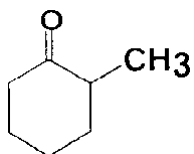
F.~-30°C. Kp.155°C

LW.80, D.0,946



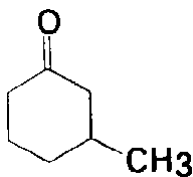
2-Methylcyclohexan-1,3-dion

F.207°C



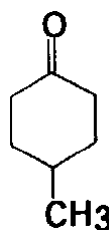
2-Methylcyclohexanon

F.-14°C, Kp.164°C, D.0,925



3-Methylcyclohexanon

F.-73°C, Kp.169°C, D.0,915

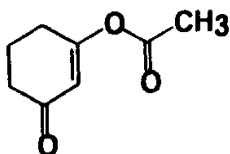


4-Methylcyclohexanon

Kp.170°C, D.0,916

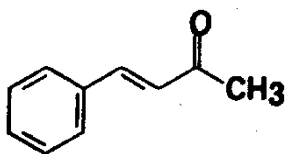
4 alpha, beta-ungesättigte Ketone

| | | | |
|----------------------------------|--|-------------------------|------------------------------|
| But-3-en-2-on | $\text{H}_3\text{C}-\text{CO}-\text{CH}=\text{CH}_2$ | <i>Methylvinylketon</i> | Kp.81°C, D.0,853 |
| 4-Methylpent-3-en-2-on | $\text{H}_3\text{C}-\text{C}(\text{CH}_3)=\text{CH}-\text{CO}-\text{CH}_3$ | <i>Mesityloxid</i> | |
| 6-Methyl-hept-5-en-2-on | $\text{H}_3\text{C}-\text{C}(\text{CH}_3)=\text{CH}-(\text{CH}_2)_2-\text{CO}-\text{CH}_3$ | | F.-67,1°C, Kp.173°C, D.0,860 |
| 2,6-Dimethyl-hepta-2,5-dien-4-on | $\text{H}_3\text{C}-\text{C}(\text{CH}_3)=\text{CH}-\text{CO}-\text{CH}=\text{C}(\text{CH}_3)-\text{CH}_3$ | <i>Phoron</i> | F.28°C, Kp.197°C |



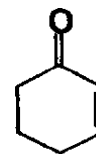
3-Acetoxy-cyclohex-2-en-1-on

D.1,136



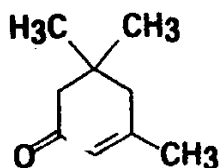
4-Phenyl-but-3-en-2-on

Benzylidenacetone
F.40°C, Kp.261°C



Cyclohex-2-en-1-on

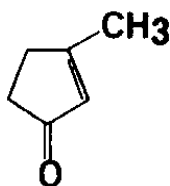
F.-53°C, Kp.168°C, D.0,995



3,5,5-Trimethyl-cyclohex-2-en-1-on

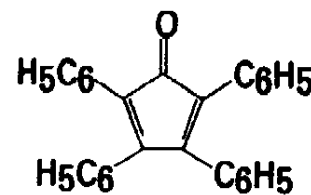
Isophoron

Kp.215°C, D.0,921, LW.12



3-Methyl-cyclopent-2-en-1-on

D.0,980

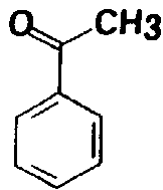


Tetraphenyl-cyclopenta-2,4-dien-1-on

Tetracyclon

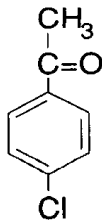
F.221°C

Acetophenone mit unsubstituierter Seitenkette



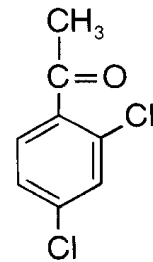
Ethanoylbenzen
Acetophenon

F.19°C, Kp.202°C, D.1,026, LW.5,5



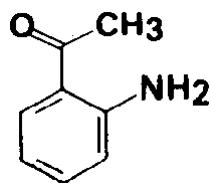
4-Chloracetophenon
p-Chlorphenylmethylketon

F.13°C, D.1,192



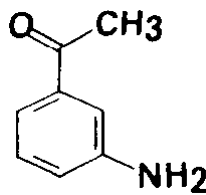
2,4-Dichloracetophenon
2,4-Dichlorphenylmethylketon

F.27°C, D.1,31



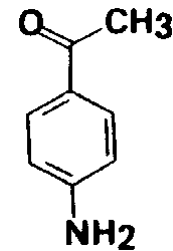
2-Aminoacetophenon

F.20°C, D.1,117



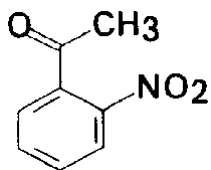
3-Aminoacetophenon

F.95°C, Kp.290°C



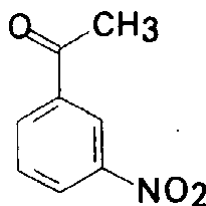
4-Aminoacetophenon

F.105°C, Kp.293°C



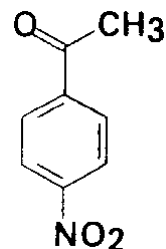
2-Nitroacetophenon

F.23°C, D.1,240



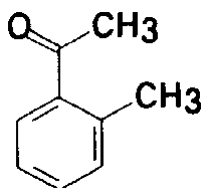
3-Nitroacetophenon

F.77°C, Kp.202°C



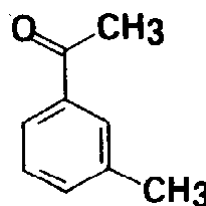
4-Nitroacetophenon

F.75°C, Kp.202°C



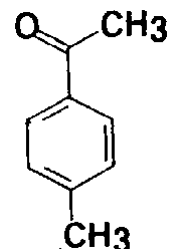
2-Methylacetophenon
Methyl-o-tolylketon

Kp.214°C, D.1,014



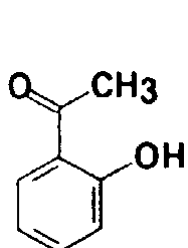
3-Methylacetophenon
Methyl-m-tolylketon

F.-9°C, Kp.219°C, D.1,007



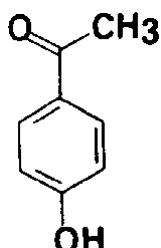
4-Methylacetophenon
Methyl-p-tolylketon

F.-19°C, Kp.226°C, D.1,004



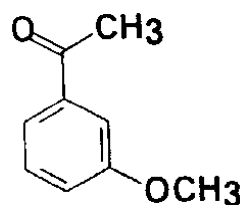
2-Hydroxyacetophenon
2-Acetylphenol

F.-5°C, D.1,132



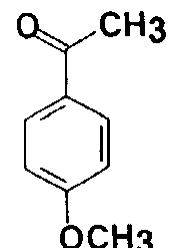
4-Hydroxyacetophenon
4-Acetylphenol

F.106°C, LW.10



3-Methoxyacetophenon
3-Acetylanisol

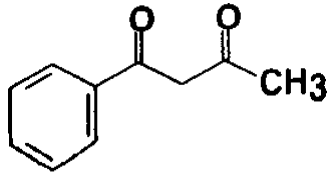
F.-7°C, D.1,094



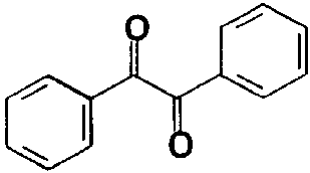
4-Methoxyacetophenon
4-Acetylanisol

F.37°C, Kp.265°C

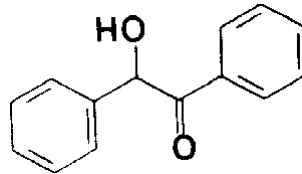
Acetophenone mit substituierter Seitenkette



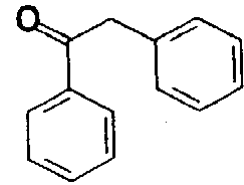
1-Phenylbutan-1,3-dion
Benzoylacetone
F.56°C



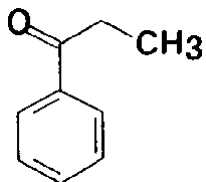
Benzil
Dibenzoyl
F.94°C, Z.346°C, LW.0,5



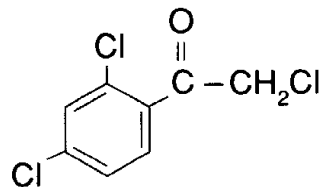
Benzoin
F.133°C, Kp.344°C



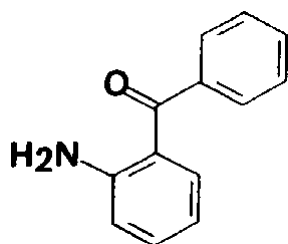
2-Phenylacetophenon
Desoxybenzoin
F.53°C, Kp.320°C



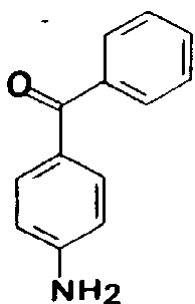
1-Phenylpropan-1-on
Propiophenon
F.18°C, Kp.218°C, D.1,009



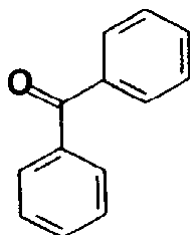
2-Chlorethanoyl-2,4-dichlor-benzen
2,4-Dichlorophenacylchlorid
F.53°C



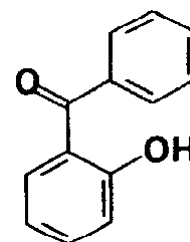
2-Aminobenzophenon
2-Benzoylanilin
F.105°C, Kp.280°C



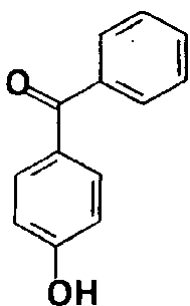
4-Aminobenzophenon
4-Benzoylanilin
F.119°C



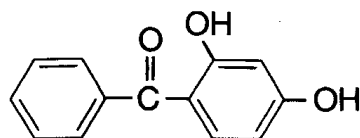
Benzophenon
Diphenylketon
F.48°C, Kp.305°C



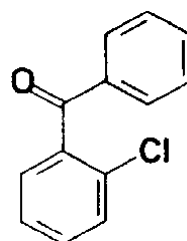
2-Hydroxybenzophenon
o-Benzoylphenol
F.35°C



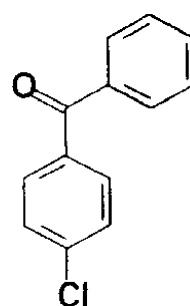
4-Hydroxybenzophenon
p-Benzoylphenol
F.132°C



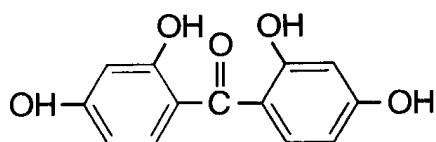
2,4-Dihydroxybenzophenon
LA.460



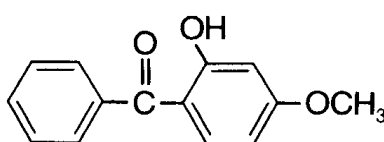
2-Chlorobenzophenon
F.46°C, Kp.330°C



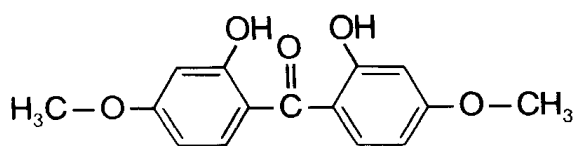
4-Chlorobenzophenon
F.74°C, Kp.331°C



2,2',4,4'-Tetrahydroxybenzophenon
LW.1, LA.400

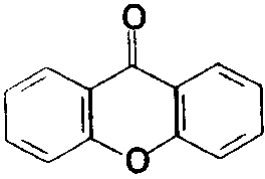


2-Hydroxy-4-methoxybenzophenon
LA.40

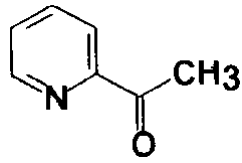


2,2'-Dihydroxy-4,4'-dimethoxybenzophenon
LA.10, LW.0

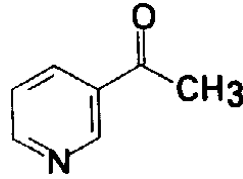
8 Heterocyclische Ketone



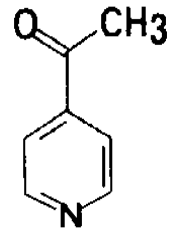
9-Xanthenon
Xanthon
F.175°C



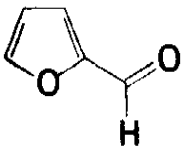
Methyl-2-pyridylketon
2-Acetylpyridin
Kp.188°C, LW.170



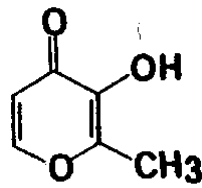
Methyl-3-pyridylketon
3-Acetylpyridin
Kp.224°C



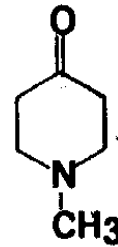
Methyl-4-pyridylketon
4-Acetylpyridin
F.15°C, Kp.212°C



2-Furylmethylketon
2-Acetylfuran
F.28°C



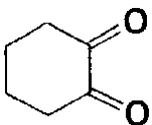
3-Hydroxy-2-methyl-4-pyranon
F.161°C



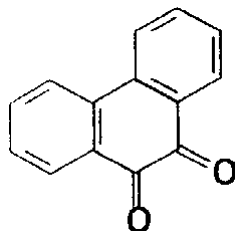
1-Methyl-4-piperidinon

9 1,2-Dicarbonylverbindungen

| | | | |
|--------------------|---|--------------------------|---------------------------|
| Butandion | $\text{CH}_3\text{-CO-CO-CH}_3$ | <i>Diacetyl</i> | F.-3°C, Kp.87°C, D.0,985 |
| Pentan-2,3-dion | $\text{CH}_3\text{-CH}_2\text{-CO-CO-CH}_3$ | | |
| Hexan-2,3-dion | $\text{CH}_3\text{-(CH}_2\text{)}_2\text{-CO-CO-CH}_3$ | | |
| Hexan-3,4-dion | $\text{CH}_3\text{-CH}_2\text{-CO-CO-CH}_2\text{-CH}_3$ | <i>Dipropionyl</i> | Kp.124°C, D.0,939 |
| 2-Oxopropansäure | $\text{H}_3\text{C-CO-COOH}$ | <i>Brenztraubensäure</i> | F.11°C, Kp.165°C, D.1,264 |
| 2-Oxopropandisäure | HOOC-CO-COOH | <i>Mesoxalsäure</i> | |



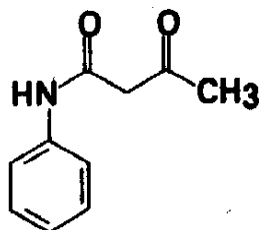
1,2-Cyclohexandion
F.37°C



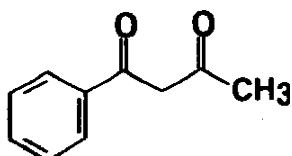
9,10-Phenanthrenchinon
F.204°C

10 1,3-Dicarbonylverbindungen

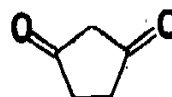
| | | | |
|-------------------------|--|---------------------------------|------------------------------|
| Pentan-2,4-dion | $\text{CH}_3\text{-CO-CH}_2\text{-CO-CH}_3$ | <i>Acetylaceton</i> | F.-23,2°C, Kp.138°C, D.0,977 |
| 3-Chlor-pentan-2,4-dion | $\text{CH}_3\text{-CO-CHCl-CO-CH}_3$ | <i>3-Chloracetylaceton</i> | Kp.156°C, D.1,185 |
| Allylacetacetat | $\text{H}_3\text{C-CO-CH}_2\text{-CO-O-CH}_2\text{-CH=CH}_2$ | <i>Acetessigsäureallylester</i> | D.1,037 |



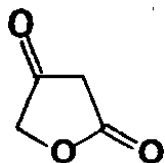
Acetessigsäureanilid
Acetoacetanilid
F.83°C, LW.5



1-Phenyl-butan-1,3-dion
Benzoylaceton
F.57°C



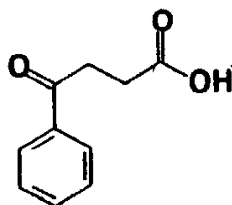
Cyclopentan-1,3-dion
F.151°C



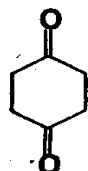
Tetrahydrofuran-2,4-dion
2,4-Dioxotetrahydrofuran
F.139°C

11 1,4-Dicarbonylverbindungen

| | | | |
|----------------|--|-----------------------|---------------------------|
| Hexan-2,5-dion | $\text{CH}_3\text{-CO-(CH}_2\text{)}_2\text{-CO-CH}_3$ | <i>Acetonylaceton</i> | F.-9°C, Kp.194°C, D.0,970 |
|----------------|--|-----------------------|---------------------------|

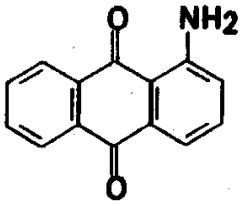


4-Oxo-4-phenylbutansäure
3-Benzoylpropionsäure
F.115°C

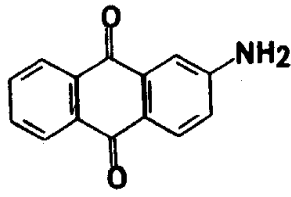


1,4-Cyclohexandion
F.77°C

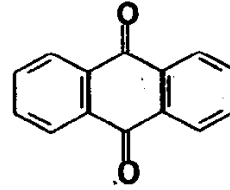
12 Chinone



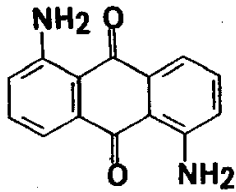
1-Aminoanthrachinon
F.253°C



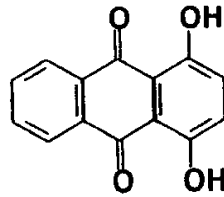
2-Aminoanthrachinon
F.293°C



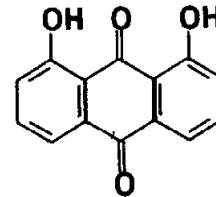
Anthrachinon
F.283°C, Kp.380°C



1,5-Diaminoanthrachinon
F.314°C



1,4-Dihydroxyanthrachinon
Chinizarin
F.197°C, Kp.450°C

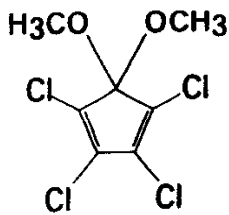


1,8-Dihydroxyanthrachinon
Chryszazin
F.191°C

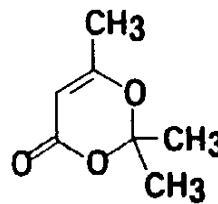
13 Ketale

2,2-Diethoxypropan $\text{CH}_3\text{-CH}_2\text{-O-C(CH}_3)_2\text{-O-CH}_2\text{-CH}_3$
2,2-Dimethoxypropan $\text{CH}_3\text{-O-C(CH}_3)_2\text{-O-CH}_3$

Acetondiäthylacetal D.0,829
Acetondimethylacetal F.-47°C, Kp.83°C



1,2,3,4-Tetrachlor-5,5-dimethoxycyclopentadien



2,2,6-Trimethyl-1,3-dioxin-4-on
F.12°C, D.1,082