

Next Steps in L^AT_EX: Intermediate Techniques

Mhchem - Chemische Elemente & Co.

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<https://www.latex-kurs.de/kurse/kurse.html>

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Mhchem

Paket

mhchem

Einbinden

```
\usepackage{mhchem}
```

```
\usepackage[version=4]{mhchem}
```

```
\usepackage[version=4,arrows=pgf]{mhchem}
```

benutzt folgende Pakete

amsmath, calc, graphics, ifthen, keyval, pdf-texcmds, twoopt

Befehle

Elemente, Aggregatzustand, Isotope ...

Elemente & Co.

Elemente & Co.

Ag und H_2SO_4

Ag und H_2SO_4

Ladungen

Ag^+ und HSO_4^-

SO_4^{2-} und SO_4^{2-}

Aggregat Zustand

$\text{H}_2\text{SO}_{4(\text{aq})}$

$\text{H}_2\text{SO}_{4(\text{aq})}$

Oxidationsstufe

$\text{Fe}^{\text{II}}\text{Fe}^{\text{III}}_2\text{O}_4$

Isotope

Isotope

$\text{\ce{^{32}_{16}S}}$ und $\text{\ce{^{34}_{16}S}}$
 $^{32}_{16}\text{S}$ und $^{34}_{16}\text{S}$

Mit Ladung

$\text{\ce{^{32}_{16}S+}}$ und $\text{\ce{^{34}_{16+}S}}$
 $^{32}_{16}\text{S}^+$ und $^{34}_{16}\text{S}^+$

ohne

$\text{\ce{^{0}_{-1}n^{-}}}$ und $\text{\ce{^{0}_{-1}n-}}$
 $^0_{-1}\text{n}^-$ und $^0_{-1}\text{n}^-$

Bindungen

Bindungen

`\ce{A - B = C#D}` $A - B = C \equiv D$

Mit Punkten

`\ce{A\bond{~}B\bond{~-}C}` und

`\ce{A\bond{~-}B\bond{~=}C\bond{-~-}D}`

$A \cdots B \equiv C$ und $A \equiv B \equiv C \equiv D$

`\ce{A\bond{...}B\bond{....}C}` $A \cdots B \cdots C$

Mit Pfeilen

`\ce{A\bond{->}B\bond{<-}C}` $A \rightarrow B \leftarrow C$

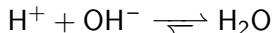
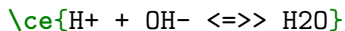
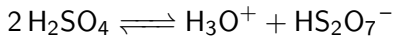
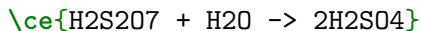
Aussehen

`\sffamily\bfseries\ce{A - B = C#D}`

$A - B = C \equiv D$

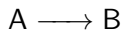
Reaktionen

Reaktionen

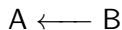


Reaktionspfeile

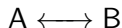
`\ce{A -> B}`



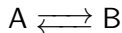
`\ce{A <- B}`



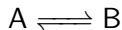
`\ce{A <-> B}`



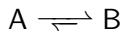
`\ce{A <--> B}`



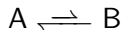
`\ce{A <=> B}`



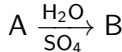
`\ce{A <=>> B}`



`\ce{A <<=> B}`

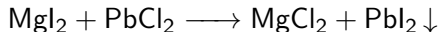
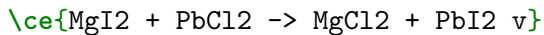


`\ce{A ->[H2O][SO4] B}`

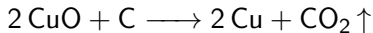
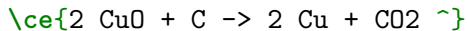


Fällung und Ausgasen

Fällung



Ausgasung



Chemie in Text & Mathe

Elemente & Co.

`\ce{Ag}` und `\ce{H2SO4}` Ag und H₂SO₄

`$\ce{Ag}$` und `$\ce{H2SO4}$` Ag und H₂SO₄

Schrift ändern

`\mhchemoptions{textfontcommand=\sffamily}`

`\mhchemoptions{mathfontcommand=\mathsf}`

Elemente & Co.

`\ce{Ag}` und `\ce{H2SO4}` Ag und H₂SO₄

`$\ce{Ag}$` und `$\ce{H2SO4}$` Ag und H₂SO₄