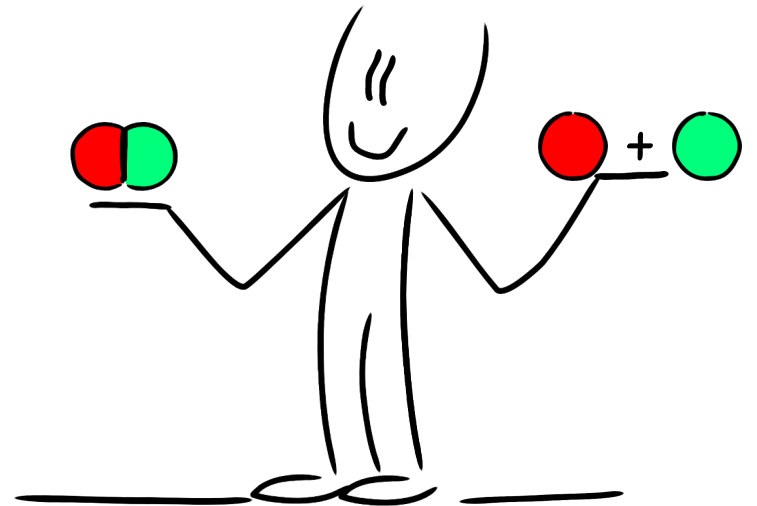


TYPEN VON REAKTIONEN



WELCHE HÄUFIGEN REAKTIONSTYPEN GIBT ES?

Grundtypen

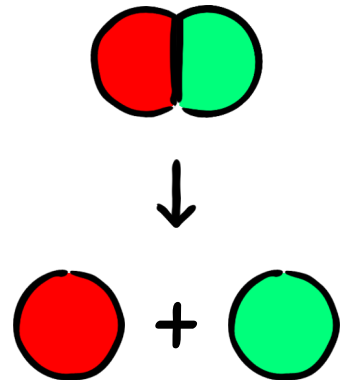
- Analyse
- Synthese

Stoffumgruppierungen / Umsetzungen

- Einfache Umsetzung
- Doppelte Umsetzung

WAS IST EINE ANALYSE?

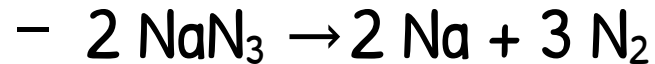
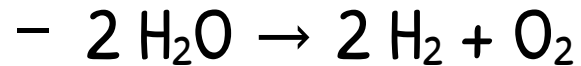
- Zerlegung
- Verbindungen werden in einfachere Stoff zerlegt.
- Anwendung:
 - Analyse: Woraus besteht das Edukt?
 - Herstellung von Reinstoffen
- Schema: $AB \rightarrow A + B$



ANALYSE

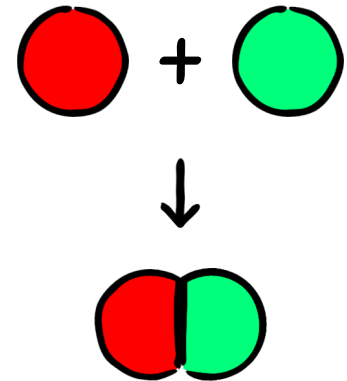
- Schema: $AB \rightarrow A + B$

- Beispiele:



WAS IST EINE SYNTHESE?

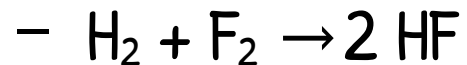
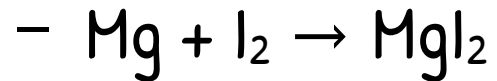
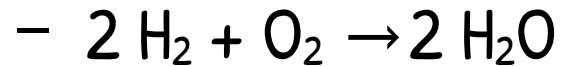
- Stoffvereinigung
- Zwei oder mehr Elemente reagieren zu einer Verbindung.
- Anwendung:
 - Herstellung eines Stoffes
- Schema: $A + B \rightarrow AB$



SYNTHESE

- Schema: $A + B \rightarrow AB$

- Beispiele:

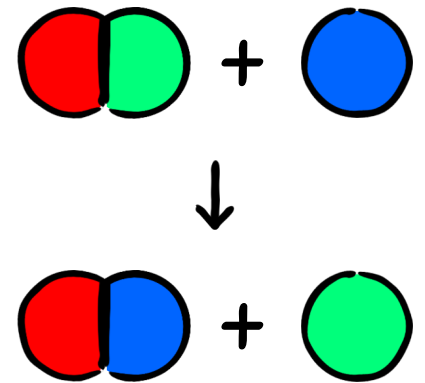


STOFFUMGRUPPIERUNGEN / UMSETZUNG

EINFACHE UMLAGERUNG

- Ein Element oder Molekülrest ersetzt ein anderes Element bzw. Molekülrest in einer Verbindung.

- Schema: $AB + C \rightarrow AC + B$



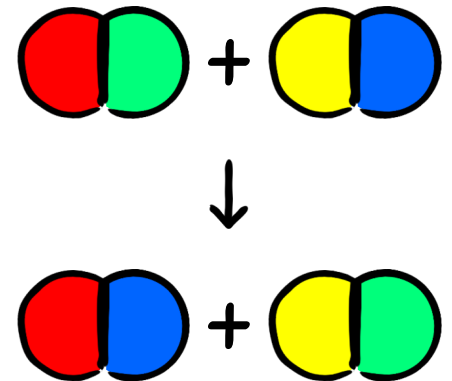
EINFACHE UMLAGERUNG

- Schema: $AB + C \rightarrow AC + B$
- Beispiel:
 - $2 \text{ NaI} + \text{Cl}_2 \rightarrow 2 \text{ NaCl} + \text{I}_2$

DOPPELTE UMLAGERUNG

- Zwei Verbindungen reagieren miteinander, so dass zwei neue Verbindungen entstehen.
- Zwei verschiedene Atome in unterschiedlichen Verbindungen wechseln die Plätze

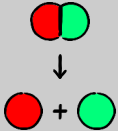
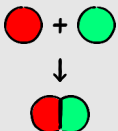
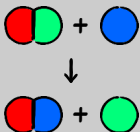
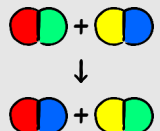
• Schema: $AB + CD \rightarrow AD + CB$



DOPPELTE UMLAGERUNG

- Schema: $AB + CD \rightarrow AD + CB$
- Beispiele:
 - $MgI_2 + PbCl_2 \rightarrow MgCl_2 + PbI_2$
 - $AgNO_3 + NaCl \rightarrow AgCl + NaNO_3$

ÜBERSICHT

NAME	SCHEMA	VISUALISIERUNG
Analyse	$AB \rightarrow A + B$	 The diagram shows a molecule consisting of two overlapping circles, one red and one green. An arrow points down to the products, which are two separate circles, one red and one green, with a plus sign between them.
Synthese	$A + B \rightarrow AB$	 The diagram shows two separate circles, one red and one green, with a plus sign between them. An arrow points down to the product, which is a molecule consisting of two overlapping circles, one red and one green.
einfache Umlagerung	$AB + C \rightarrow AC + B$	 The diagram shows a molecule of two overlapping red and green circles plus a single blue circle. An arrow points down to the products, which are a molecule of two overlapping red and blue circles plus a single green circle.
doppelte Umlagerung	$AB + CD \rightarrow AD + CB$	 The diagram shows a molecule of two overlapping red and green circles plus a molecule of two overlapping yellow and blue circles. An arrow points down to the products, which are a molecule of two overlapping red and blue circles plus a molecule of two overlapping yellow and green circles.