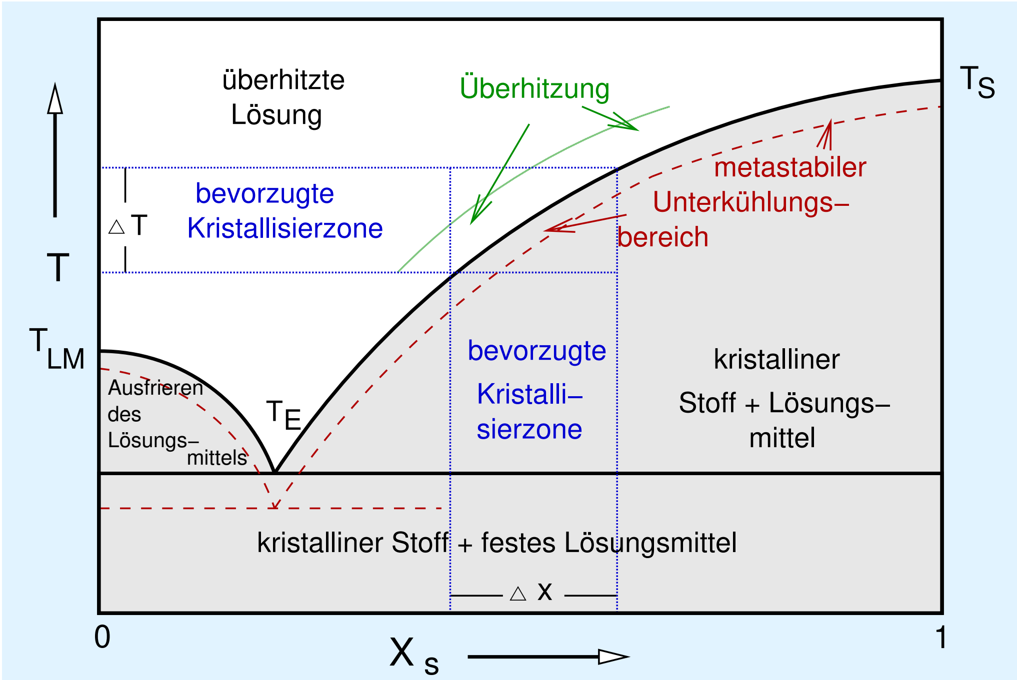
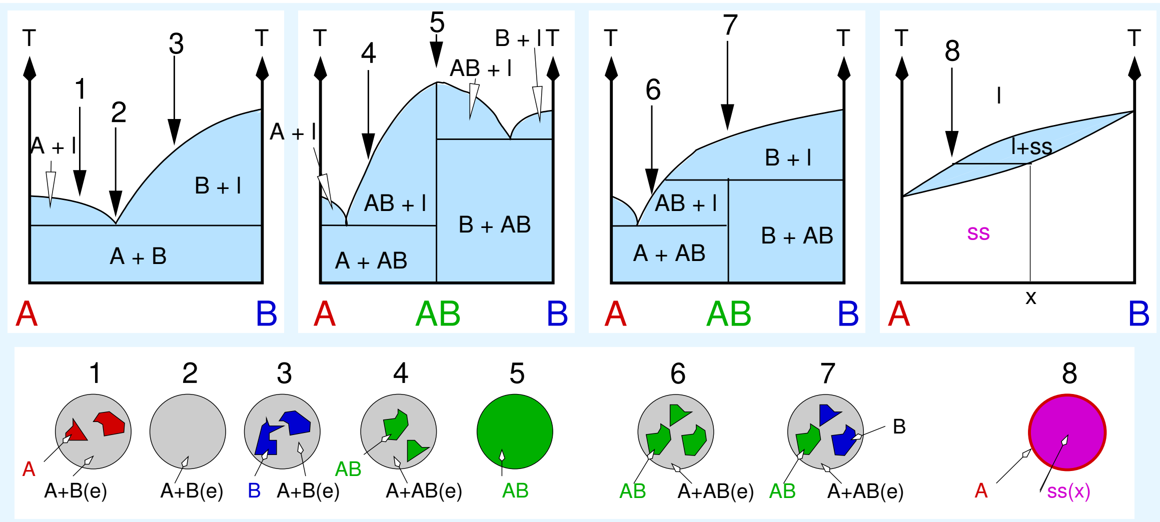
2.4. Reaktionen/Synthesen von Festkörpern (Forts.)

2.4.3. Kristallisation aus Lösungen und Schmelzen



Kristallisation aus Lösungen



Kristallisation aus Schmelzen

2.4.4. Chemische Transportreaktionen

Prod.	Reaktionsgleichung	T [° C]	Bezeichnung
Ni	$Ni(s) + 4CO(g) \rightleftharpoons Ni(CO)_4$	50→190	Mond-V.
Zr	$Zr + I_2 \rightleftharpoons ZrI_4$	200→1300	v.-Arkel-de-Boer-V.
Cu_2O	$Cu_2O(s) + 2HCl(g) \rightleftharpoons \frac{2}{3}CuCl_3(g) + H_2O(g)$	600 → 900	
TiO_2	$TiO_2(s) + 4HCl(g) \rightleftharpoons TiCl_4(g) + 2H_2O(g)$	1000→T_1	
TiN	$TiN + 3HCl \rightleftharpoons TiCl_3(g) + 1.5H_2 + 0.5N_2$	1590→1450	
Au	$Au + 1.5Cl_2 \rightleftharpoons 0.5Au_2Cl_6(g)$	320→450	Transport mit um-
	$Au + 0.5Cl_2 \rightleftharpoons 0.5Au_2Cl_2(g)$	800→500	kehrbarer Tr.-Richtung
FeI_2	$FeI_2 + 0.5I_2 \rightleftharpoons FeI_3$	180(I_2)/520(Fe)	Synthesen im Temperatur-Gefälle
$NiCr_2O_4$	$Cr_2O_3(s) + \frac{3}{2}O_2 \rightleftharpoons 2CrO_3(g)$	1100→T_2	Rkt-Beschleunigung
	$2CrO_3(g) + NiO(s) \rightarrow NiCr_2O_4 + \frac{3}{2}O_2$		durch chem. Transport