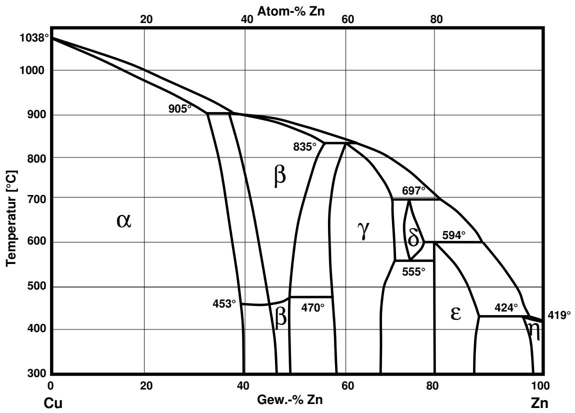
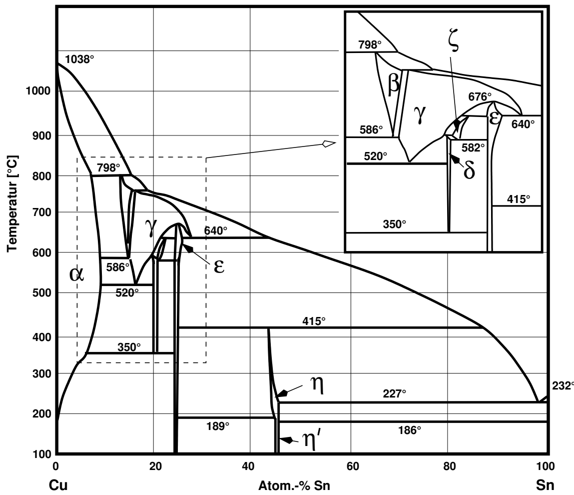
3.3.3. Hume-Rothery-Phasen (A2-B1)

	α-Phase	β-Phase	γ-Phase	ϵ-Phase
Struktur	f.c.c.	b.c.c.	kompl. kubisch (s.u.)	h.c.p.
VEC (n. Hume-Rothery)	-	$\frac{3}{2} = \frac{21}{14}$=1.5	$\frac{21}{13}$=1.615	$\frac{7}{4} = 1.75$
Maximale Löslichkeit	1.362	1.48	1.538	
Experimentelle Werte				
Cu-Zn	1.284	CuZn (1.48)	Cu_5Zn_8 (1.58-1.66)	$CuZn_3$
Cu-Sn	1.270	Cu_5Sn (1.49)	$Cu_{31}Sn_8$ (1.67)	Cu_3Sn
Cu-Al	1.408	Cu_3Al (1.48)	Cu_9Al_4 (1.62-1.77)	-
Co-Zn		$CoZn_3$	Co_5Zn_{21}	-
Cu-In		Cu_3In	Cu_9In_4	-
Rh-Zn		-	Rh_5Zn_{21}	-

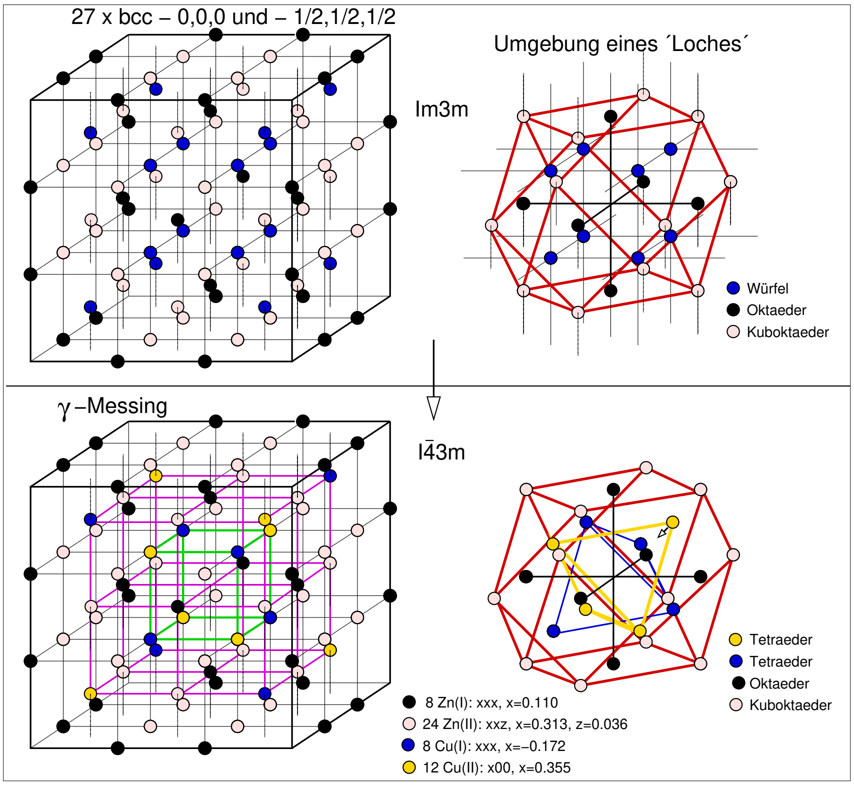
Übersicht Hume-Rothery-Phasen



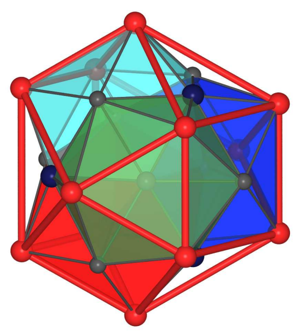
Phasendiagramm Cu-Zn (Messing)



Phasendiagramm Cu-Sn (Bronze)



Struktur von γ-Messing



Cluster aus vier Ikosaedern