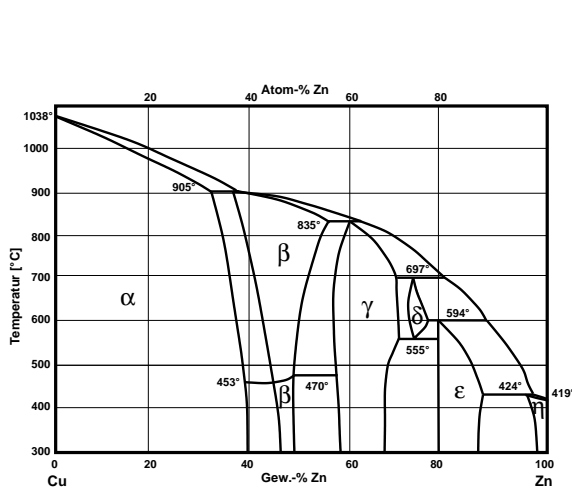


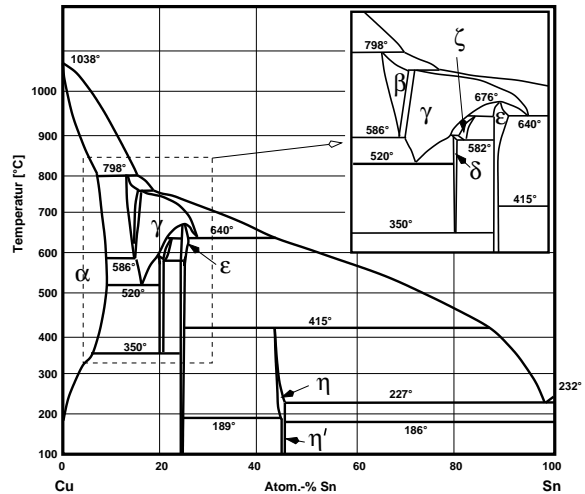
3.3.3. Hume-Rothery-Phasen (A2-B1)

	α -Phase	β -Phase	γ -Phase	ϵ -Phase
Struktur	fcc	bcc	kompl. kubisch (s.u.)	hcp
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 ₅ Zn ₈ (1.58-1.66)	CuZn ₃
Cu-Sn	1.270	Cu ₅ Sn (1.49)	Cu ₃₁ Sn ₈ (1.67)	Cu ₃ Sn
Cu-Al	1.408	Cu ₃ Al (1.48)	Cu ₉ Al ₄ (1.62-1.77)	-
Co-Zn		CoZn ₃	Co ₅ Zn ₂₁	-
Cu-In		Cu ₃ In	Cu ₉ In ₄	-
Rh-Zn		-	Rh ₅ Zn ₂₁	-

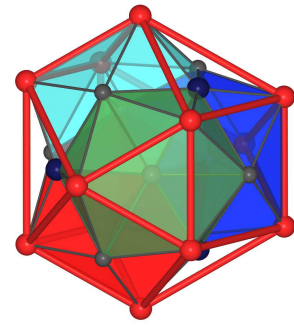
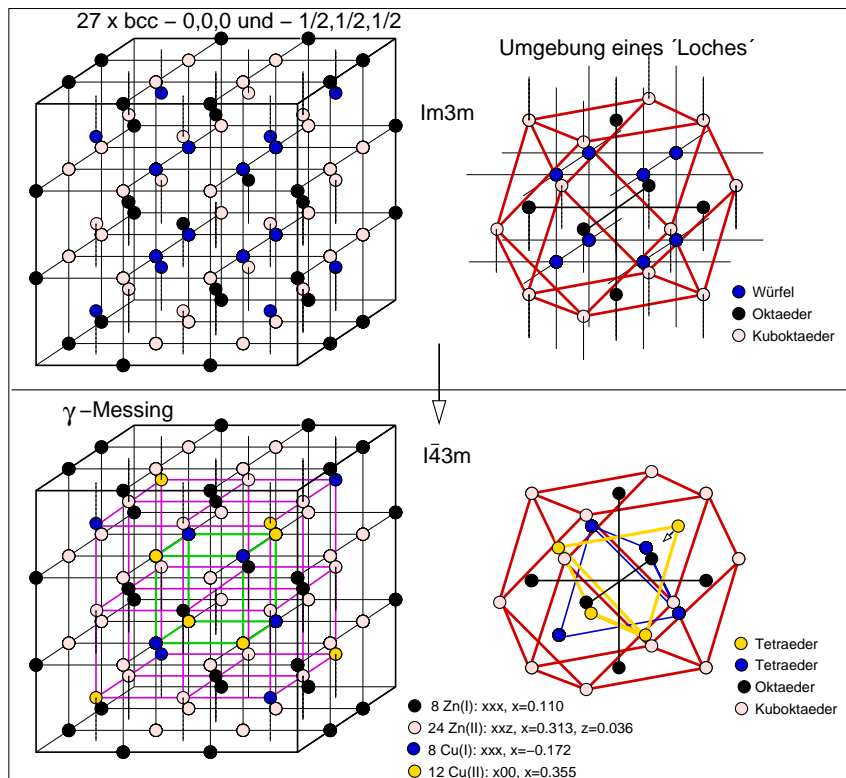
Übersicht Hume-Rothery-Phasen



Phasendiagramm Cu-Zn (Messing)



Phasendiagramm Cu-Sn (Bronze)



Cluster aus vier Ikosaedern

Struktur von γ-Messing