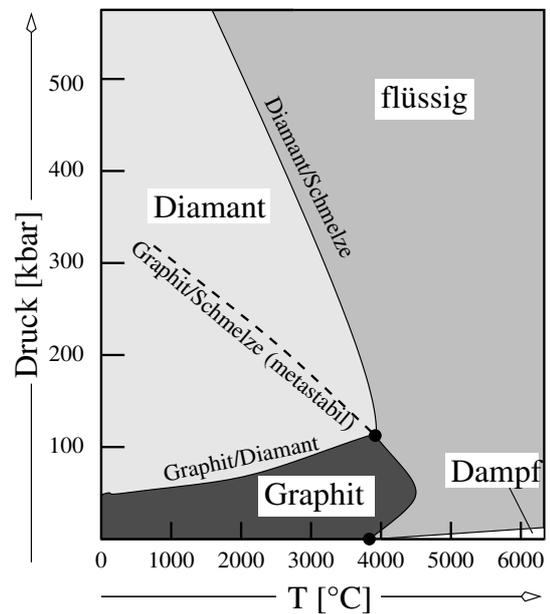
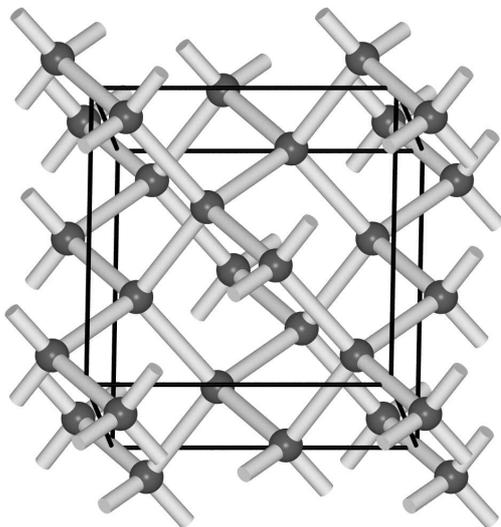


Künstliche Edelsteine

1. Übersicht

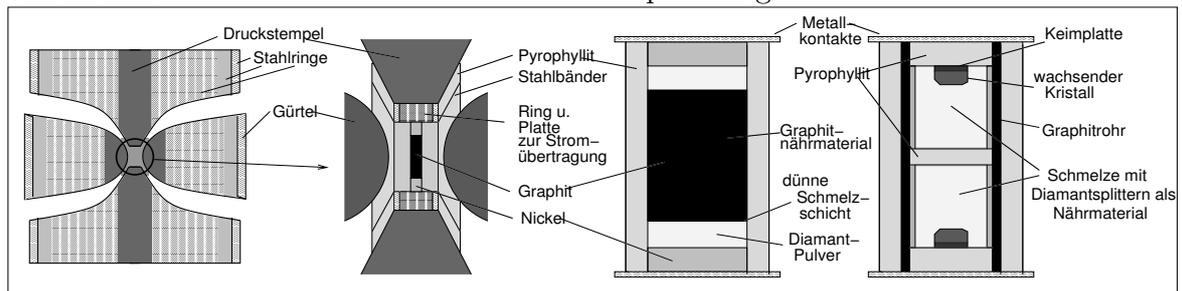
Edelstein	chem. Formel	Härte (Mohs)	n_D	ρ [g/cm ³]
Diamant	C	10	2.42	3.52
Korund (Saphir, Rubin)	Al ₂ O ₃	9	1.77	4.00
Spinell	MgAl ₂ O ₄	8	1.73	
Beryll (Smaragd, Aquamarin)	Be ₃ Al ₂ Si ₆ O ₁₆	7.5	1.58	2.69
Chrysoberyll (Alexandrit)	BeAl ₂ O ₄	8.5	1.75	3.72
Quarz (Amethyst, Citrin)	SiO ₂	7	1.55	2.66
Rutil	TiO ₂	6	2.75	4.26
Zirkonoxid	ZrO ₂	8	2.16	6.00
Gd-Ga-Granat (GGG)	Gd ₃ Ga ₅ O ₁₂	7.5	2.02	7.02
Y-Al-Granat (YAG)	Y ₃ Al ₅ O ₁₂	8	1.83	4.55

2. Hochdruck-Synthese ↦ Diamant



Struktur von Diamant

p-T-Diagramm



Belt-Apparatur zur Diamantsynthese