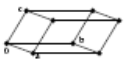
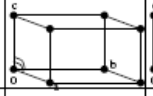
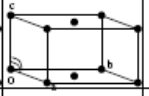
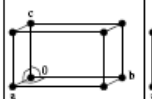
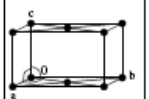
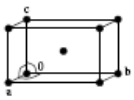
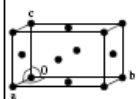
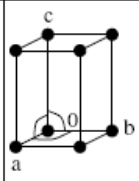
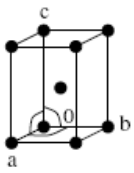
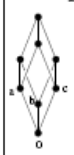
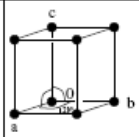
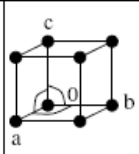
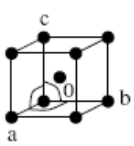
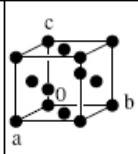
Die 230 Raumgruppen (mit Kristallsystemen, Punktgruppen, Bravaisgittertypen)

Kristallsystem	Punktgruppe	Gitterkonstanten	Bravaisgittertypen P	C	I	F	Blickrichtung 1.	2.	3.	Raumgruppen
			x,y,z	x,y,z $x+\frac{1}{2},y+\frac{1}{2},z$	x,y,z $x+\frac{1}{2},y+\frac{1}{2},z+\frac{1}{2}$	x,y,z $x+\frac{1}{2},y+\frac{1}{2},z$ $x+\frac{1}{2},y,z+\frac{1}{2}$ $x,y+\frac{1}{2},z+\frac{1}{2}$				
triklin	1	$a \neq b \neq c$					-	-	-	P1
	$\bar{1}$	$\alpha \neq \beta \neq \gamma \neq 90$								$P\bar{1}$
monoklin	2	$a \neq b \neq c$					[010]	-	-	P2, $P2_1$, C2
	m	$\alpha = \gamma = 90^o$								Pm, Pc, Cm, Cc
	2/m	$\beta \neq 90^o$								P2/m, $P2_1/m$, C2/m, P2/c, $P2_1/c$, C2/c
orthorhombisch	222	$a \neq b \neq c$					[100]	[010]	[001]	P222, $P222_1$, $P2_12_12$, $P2_12_12_1$,
	mm2	$\alpha = \beta = \gamma = 90$								C222, $C222_1$, F222, I222, $I2_12_12_1$, Pmm2, $Pmc2_1$, Pcc2, $Pma2_1$, $Pca2_1$, $Pnc2_1$, $Pmn2_1$, Pba2, $Pna2_1$, Pnn2, $Cmm2$, $Cmc2_1$, Ccc2, Amm2, Abma, Ama2, Aba2, Fmm2, Fdd2, Imm2, Iba2, Ima2
	mmm									Pmmm, Pnnm, Pccm, Pban, Pmma, Pnna, Pmna, Pcca, Pbam, Pccn, Pbcm, Pnnm, Pmmn, Pbcn, Pbca, Pnma, Cmcm, Cmca, Cmmm, Cccm, Cmma, Ccca, Fmmm, Fddd, Immm, Ibam ,Ibca, Imma
tetragonal	4	$a = b \neq c$					[001]	[100]	[110]	P4, $P4_1$, $P4_2$, $P4_3$, I4, $I4_1$
	4	$\alpha = \beta = \gamma = 90$						[010]	[1$\bar{1}$0]	$P\bar{4}$, I$\bar{4}$
	4/m									P4/m, $P4_2/m$, P4/n, $P4_2/n$, I4/m, $I4_1/a$
	422									P422, $P42_12$, $P4_122$, $P4_12_12$, $P4_222$, $P4_22_12$, $P4_322$, $P4_32_12$, I422, $I4_122$
	4mm									P4mm, P4bm, $P4_2cm$, $P4_2nm$, P4cc, P4nc, $P4_2mc$, $P4_2bc$, I4mm, I4cm, $I4_1md$, $I4_1cd$
	4m									$P\bar{4}2m$, $P\bar{4}2c$, $P\bar{4}2_1m$, $P\bar{4}2_1c$, $P\bar{4}m2$, $P\bar{4}c2$, $P\bar{4}b2$, $P\bar{4}n2$, $I\bar{4}m2$, $I\bar{4}c2$, $I\bar{4}2m$, $I\bar{4}2d$
	4/mmm									P4/mmm, P4/mcc, P4/nbm, P4/nnc, P4/mbm, P4/mnc, P4/nmm, P4/ncc, $P4_2/mmc$, $P4_2/mcm$, $P4_2/nbc$, $P4_2/nnm$, $P4_2/mbc$, $P4_2/mnm$, $P4_2/nmc$, $P4_2/ncm$, I4/mmm, I4/mcm, $I4_1/amd$, $I4_1/acd$
trigonal	3	$a = b = c$	R				[111]	[1$\bar{1}$0]	-	P3, $P3_1$, $P3_2$, R3
	$\bar{3}$	$\alpha = \beta = \gamma \neq 90$						[01$\bar{1}$]		$P\bar{3}$, $R\bar{3}$
	32							[$\bar{1}$01]		P312, P321, $P3_112$, $P3_121$, $P3_212$, $P3_221$, R32
	3m									P3m1, P31m, P3c1, P31c, R3m, R3c
	$\bar{3}$m									P$\bar{3}$1m, P$\bar{3}$1c, P$\bar{3}$m1, P$\bar{3}$c1, R$\bar{3}$m, R$\bar{3}$c
hexagonal	6	$a = b \neq c$					[001]	[100]	[1$\bar{1}$0]	P6, $P6_1$, $P6_5$, $P6_3$, $P6_2$, $P6_4$
	$\bar{6}$	$\alpha = \beta = 90$						[010]	[120]	$P\bar{6}$
	6/m	$\gamma = 120$						[1$\bar{1}$0]	[2$\bar{1}$0]	P6/m, $P6_3/m$
	622									P622, $P6_122$, $P6_522$, $P6_222$, $P6_422$, $P6_322$
	6mm									P6mm, P6cc, $P6_3cm$, $P6_3mc$
	6m									P$\bar{6}$m2, P$\bar{6}$c2, P$\bar{6}$2m, P$\bar{6}$2c
	6/mmm									P6/mmm, P6/mcc, $P6_3/mcm$, $P6_3/mmc$
kubisch	23	$a = b = c$					[100]	[111]	[110]	P23, F23, I23, $P2_13$, $I2_13$
	m3	$\alpha = \beta = \gamma = 90$					[010]	[1$\bar{1}$1]	[01$\bar{1}$]	Pm3, Pn3, Fm3, Fd3, Im$\bar{3}$, Pa$\bar{3}$, Ia$\bar{3}$
	432						[001]	[$\bar{1}$1$\bar{1}$]	[$\bar{1}$01]	P432, $P4_232$, F432, $F4_132$, I432, $P4_332$, $P4_132$, $I4_132$
	$\bar{4}$3m							[$\bar{1}\bar{1}$1]	[1$\bar{1}$0]	P$\bar{4}$3m, F$\bar{4}$3m, I$\bar{4}$3m, P$\bar{4}$3n, F$\bar{4}$3c, I$\bar{4}$3d
	m3m								[011]	Pm$\bar{3}$m, Pn$\bar{3}$n, Pm$\bar{3}$n, Pn$\bar{3}$m,
									[101]	Fm$\bar{3}$m, Fm$\bar{3}$c, Fd$\bar{3}$m, Fd$\bar{3}$c, Im$\bar{3}$m, Ia$\bar{3}$d