

Symmetry Classification for Serial Crystallography Experiments

Groups with white backgrounds are merohedral and hence data will appear 'twinned'.

Laue Class	Point Groups	Centrosymmetric Space Groups	Non-Centrosymmetric Space Groups
$\bar{1}$	1	$P\bar{1}$	P1
2/m	2 m	P2/m, P2 ₁ /m, C2/m, P2/c, P2 ₁ /c, C2/c	P2, P2 ₁ , C2, Pm, Pc, Cm, Cc
mmm	222 mm2	Pmmm, Pnnn, Pccm, Pban, Pmma, Pnna, Pmna, Pcca, Pbam, Pccn, Pbcm, Pnnm, Pmmn, Pbcn, Pbca, Pnma, Cmcm, Cmce, Cmmm, Cccm, Cmme, Ccce, Fmmm, Fddd, Immm, Ibam, Ibca, Imma	P222, P222 ₁ , P2 ₁ 2 ₁ 2, P2 ₁ 2 ₁ 2 ₁ , C222 ₁ , C222, F222, I222, I2 ₁ 2 ₁ 2 ₁ , Pmm2, Pmc2 ₁ , Pcc2, Pma2, Pca2 ₁ , Pnc2, Pmn2 ₁ , Pba2, Pna2 ₁ , Pnn2, Cmm2, Cmc2 ₁ , Ccc2, Amm2, Aem2, Ama2, Aea2, Fmm2, Fdd2, Imm2, Iba2, Ima2
4/m	4 $\bar{4}$	P4/m, P4 ₂ /m, P4/n, P4 ₂ /n, I4/m, I4 ₁ /a	P4, P4 ₁ , P4 ₂ , P4 ₃ , I4, I4 ₁ , $P\bar{4}$, $I\bar{4}$
4/mmm	422 $\bar{4}2m$ 4mm	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	P422, P42 ₁ 2, P4 ₁ 22, P4 ₁ 2 ₁ 2, P4 ₂ 22, P4 ₂ 2 ₁ 2, P4 ₃ 22, P4 ₃ 2 ₁ 2, I422, I4 ₁ 22, $P\bar{4}2m$, $P\bar{4}2c$, $P\bar{4}2_1m$, $P\bar{4}2_1c$, $P\bar{4}m2$, $P\bar{4}c2$, $P\bar{4}b2$, $P\bar{4}n2$, $I\bar{4}m2$, $I\bar{4}c2$, $I\bar{4}2m$, $I\bar{4}2d$, P4mm, P4bm, P4 ₂ cm, P4 ₂ nm, P4cc, P4nc, P4 ₂ mc, P4 ₂ bc, I4mm, I4cm, I4 ₁ md, I4 ₁ cd
$\bar{3}$	3	$P\bar{3}$, R $\bar{3}$	P3, P3 ₁ , P3 ₂ , R3
$\bar{3}m$	32 3m	$P\bar{3}1m$, $P\bar{3}1c$, $P\bar{3}m1$, $P\bar{3}c1$, R $\bar{3}m$, R $\bar{3}c$	P312, P321, P3 ₁ 12, P3 ₁ 21, P3 ₂ 12, P3 ₂ 21, R32, P3m1, P31m, P3c1, P31c, R3m, R3c
6/m	6 $\bar{6}$	P6/m, P6 ₃ /m	P6, P6 ₁ , P6 ₅ , P6 ₂ , P6 ₄ , P6 ₃ , $P\bar{6}$
6/mmm	622 $\bar{6}2m$ 6mm	P6/mmm, P6/mcc, P6 ₃ /mcm, P6 ₃ /mmc	P622, P6 ₁ 22, P6 ₅ 22, P6 ₂ 22, P6 ₄ 22, P6 ₃ 22, $P\bar{6}m2$, $P\bar{6}c2$, $P\bar{6}2m$, $P\bar{6}2c$, P6mm, P6cc, P6 ₃ cm, P6 ₃ mc
$m\bar{3}$	23	$Pm\bar{3}$, $Pn\bar{3}$, $Fm\bar{3}$, $Fd\bar{3}$, $Im\bar{3}$, $Pa\bar{3}$, $Ia\bar{3}$	P23, F23, I23, P2 ₁ 3, I2 ₁ 3
$m\bar{3}m$	432 $\bar{4}32$	$Pm\bar{3}m$, $Pn\bar{3}n$, $Pm\bar{3}n$, $Pn\bar{3}m$, $Fm\bar{3}m$, $Fm\bar{3}c$, $Fd\bar{3}m$, $Fd\bar{3}c$, $Im\bar{3}m$, $Ia\bar{3}d$	P432, P4 ₂ 32, F432, F4 ₁ 32, I432, P4 ₃ 32, P4 ₁ 32, I4 ₁ 32, $P\bar{4}3m$, $F\bar{4}3m$, $I\bar{4}3m$, $P\bar{4}3n$, $F\bar{4}3c$, $I\bar{4}3d$