

3.16: Integral reflection conditions

The integral reflections are the general reflection conditions due to the centering of cells. They are given in the table below:

Integral reflection conditions for centered lattices.

Reflection condition	Centering type of cell	Centering symbol
None	Primitive	P R (rhombohedral axes)
$h + k = 2n$	C-face centered	C
$k + l = 2n$	A-face centered	A
$l + h = 2n$	B-face centered	B
$h + k + l = 2n$	body centered	I
$h + k, h + l$ and $k + l = 2n$ or: h, k, l all odd or all even ('unmixed')	all-face centered	F
$-h + k + l = 3n$	rhomboidally centered, reverse setting	R (hexagonal axes)
$h - k + l = 3n$	rhomboidally centered, obverse setting (standard)	
$h - k = 3n$	hexagonally centered	

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