

### 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	<i>P</i> <i>R</i> (rhombohedral axes)
$h + k = 2n$	<i>C</i> -face centered	<i>C</i>
$k + l = 2n$	<i>A</i> -face centered	<i>A</i>
$l + h = 2n$	<i>B</i> -face centered	<i>B</i>
$h + k + l = 2n$	body centered	<i>I</i>
$h + k, h + l$ and $k + l = 2n$ or: $h, k, l$ all odd or all even ('unmixed')	all-face centered	<i>F</i>
$-h + k + l = 3n$	rhomboidally centered, reverse setting	<i>R</i> (hexagonal axes)
$h - k + l = 3n$	rhomboidally centered, obverse setting (standard)	
$h - k = 3n$	hexagonally centered	<i>H</i>

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