

3.26: Serial reflection conditions

The serial reflection conditions are the general reflection conditions due to the presence of screw axes. The resulting conditions apply only to one-dimensional sets of reflections, *i.e.* reciprocal-lattice rows containing the origin (such as $h00$, $0k0$, $00l$). For instance, for a screw axis parallel to $[001]$, the reflection conditions are:

type of reflection	reflection condition	screw vector	screw axis
00l	$l = 2n$	$c/2$	$2_1; 4_2$
	$l = 4n$	$c/4$	$4_1; 4_3$
000l	$l = 2n$	$c/2$	6_3
	$l = 3n$	$c/3$	$4_1; 3_1; 3_2; 6_2; 6_4$
	$l = 6n$	$c/6$	$6_1; 6_5$

The serial reflection conditions are listed in Table 2.2.13.2 of *International Tables of Crystallography, Volume A*.

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