

## 1.12: Bravais-Miller indices

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The Bravais-Miller indices are used in the case of hexagonal lattices. In that case, one uses four axes,  $\mathbf{a}_1$ ,  $\mathbf{a}_2$ ,  $\mathbf{a}_3$ ,  $\mathbf{c}$  and four Miller indices,  $(hkil)$ , where  $h$ ,  $k$ ,  $i$ ,  $l$  are prime integers inversely proportional to the intercepts  $OP$ ,  $OQ$ ,  $OS$ ,  $OR$  of a plane of the family with the four axes. The indices  $h$ ,  $k$ ,  $i$  are cyclically permutable and related by  $h + k + i = 0$

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