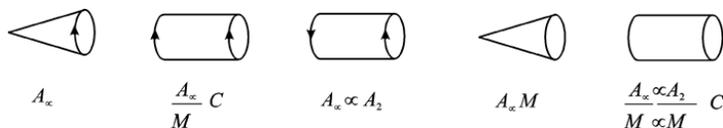


## 6.3: Cylindrical system

The cylindrical system contains non-crystallographic point groups with one axis of revolution (or isotropy axis). There are five groups in the spherical system:

Hermann-Mauguin symbol	Short Hermann-Mauguin symbol	Schönflies symbol	order of the group	general form
$A_\infty$	$\infty$	$C_\infty$	$\infty$	rotating cone
$\frac{A_\infty}{M} C$	$\bar{\infty}$	$C_{\infty h} \equiv S_\infty \equiv C_{\infty i}$	$\infty$	rotating finite cylinder
$A_\infty \infty A_2$	$\infty 2$	$D_\infty$	$\infty$	finite cylinder submitted to equal and opposite torques
$A_\infty M$	$\infty m$	$C_{\infty v}$	$\infty$	stationary cone
$\frac{A_\infty}{M} \frac{\infty A_2}{\infty M} C$	$\bar{\infty} m \equiv \bar{\infty} \frac{2}{m}$	$D_{\infty h} \equiv D_{\infty d}$	$\infty$	stationary finite cylinder



Note that  $A_\infty M$  represents the symmetry of a force, or of an electric field and that  $\frac{A_\infty}{M} C$  represents the symmetry of a magnetic field (Curie 1894), while  $\frac{A_\infty}{M} \frac{\infty A_2}{\infty M} C$  represents the symmetry of a uniaxial compression.

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