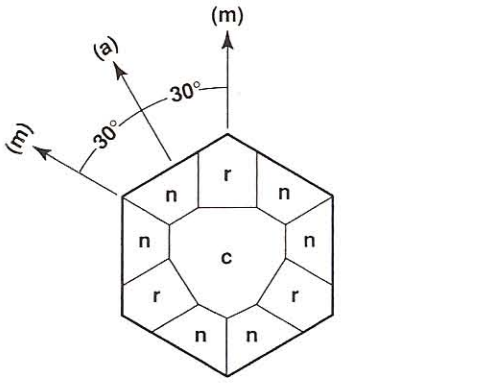

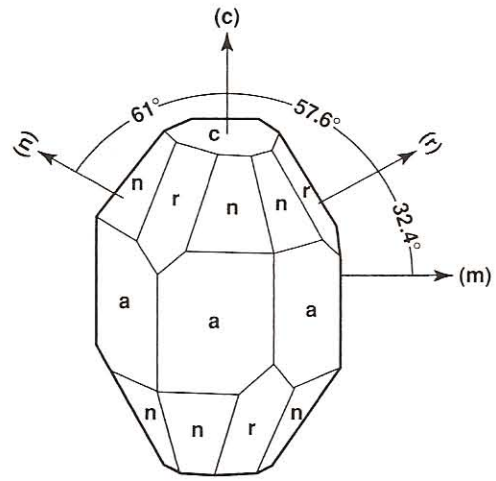

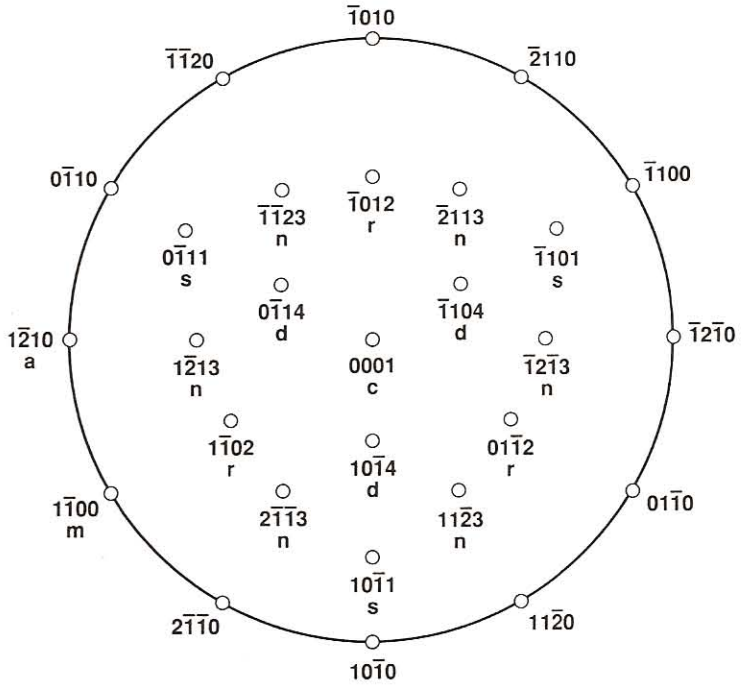

Common Crystalographic Planes in Sapphire

Plane "name"	Miller Index	d Spacing
a	$(11\bar{2}0)$	2.379 Å
m	$(10\bar{1}0)$	1.375 Å
c	(0001)	2.165 Å
r	$(1\bar{1}02)$	1.964 Å
n	$(11\bar{2}3)$	1.147 Å
s	$(10\bar{1}1)$	1.961 Å

Angles Between Common Planes

$(0001) \wedge (1\bar{1}02)$	57° 35'
$(0001) \wedge (11\bar{2}3)$	61° 11'
$(0001) \wedge (10\bar{1}1)$	72° 23'
$(0001) \wedge (11\bar{2}1)$	79° 37'
$(0001) \wedge (11\bar{2}0)$	90° 00'
$(0001) \wedge (10\bar{1}0)$	90° 00'
$(11\bar{2}0) \wedge (10\bar{1}0)$	30° 00'

Figure 10. Representation of Sapphire ($\propto Al_2O_3$) Crystal Structures and Important Orientation Planes

NOTES

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