CRYSTALS COMPONENTS

LN & (MgO)LN
Sapphire
Nd:YAG
Yb:YAG
Cr:YAG
CaF2
MgF2
ZnSe
Ge

Cr:YAG

Orientation:	[111] or [100] within 5°
Scratch & Dig:	40/20~20/10
Flatness:	λ/8
parallelism:	30 arc Sec
Coating:	AR/AR@1064nm,R<0.25%

Cr4+:YAG provides a large absorption cross section in the 0.9-1.2 micrometer spectral region, which makes it an attractive choic a passive Q-switch for Nd-doped lasers. The resulting devices are solid-state, compact and low-cost. Cr:YAG has high damage threshold, good thermal conductivity, good chemical stability, resists ultraviolet radiation, and is easily machinable. It is replacing more traditional Q-switching materials like lithium fluoride and organic dyes. The dopant levels used range between 0.5 and 3 percent (molar). Cr:YAG can be used for passive Q-switching of lasers that operate at wavelengths between 1000 and 1200 nm, such as those based on Nd:YAG, Nd:YLF, Nd:YVO4, and Yb:YAG.Cr:YAG can be also used as a laser gain medium itself, producing tunable lasers with outputs adjustable between 1350 and 1550 nm. The Cr:YAG laser can generate ultrashort pulses (the femtoseconds range) when it is pumped at 1064 nm by a Nd:YAG laser.