

Diffraction for SCIENTIFIC LASER

Most of the applications in the field of high power research laser require **homogenization** of pumping and/or power beam to improve the amplification yield.

SILIOS Technologies proposes customized Diffraction Optical Elements (DOE) for applications using laser sources like **Nd: Yag, Ti:Sapphire,...**

Examples:

Titanium Sapphire crystal pumping

SILIOS' DOE homogenizes and shapes in **Top Hat** the doubled Yag laser beam to pump the Ti: Sapphire crystal with higher fluence while preventing the crystal from breaking.

Intra cavity laser beam shaping

SILIOS manufactures intra cavity Phase Mirror to homogenize and shape in **square** the preamplifier beam (LIL - Laser MegaJoule project).

Femtosecond laser beam shaping

SILIOS' DOE homogenizes the Ti:Sapphire laser beam to optimize non linear effect generation.

Technical specifications:

Optic type:	plate or mirror
Material:	fused silica
Beam diameter :	up to 4" diameter
Damage threshold :	ultra hard energy coating available
Efficiency:	up to 95%

