

3photon



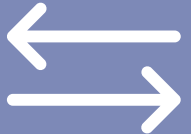
2021



40 employees in group of companies



Optical coating facility with 6 PVD machines + 2 new IBS machines



Wide dielectric coating range 193 nm (UV) – 12 500 nm (IR)



Common, hard or soft, hygroscopic and fragile crystals polishing



Advices, simulations & technical consultations

Laser and Q-switch crystals



IR Q-switch: Cr:ZnSe |
Cr:CdSe | Cr:ZnS | Fe:ZnSe |
Fe:ZnS

Laser crystals: Ti:Sapphire |
Alexandrite | Nd:YVO₄ | *:YAG
| *:YLF |

Q-Switch: Cr:YAG | Co:MALO

Custom coatings



Infrared: 2 μm | 3-5 μm | 4-6
 μm | 8-10 μm | 8-12 μm | 7-
9.5 μm

HIGH LIDT coatings

Coatings on hygroscopic, soft
and fragile crystals

Non-linear optical crystals



IR NLO crystals: AgGaSe |
AgGaS₂ | GaSe | CdSe |
ZnGeP₂

NLO crystals: BBO, LBO,
DKDP, PPKTP, ...

Raman crystals: BaMoO₄,
SrMoO₄, SrWO₄, BaWO₄, ...

Laser optics



Beam-splitters | dichroic
separators | harmonic
separators

Broadband mirrors | gaussian
mirrors | metallic mirrors ...

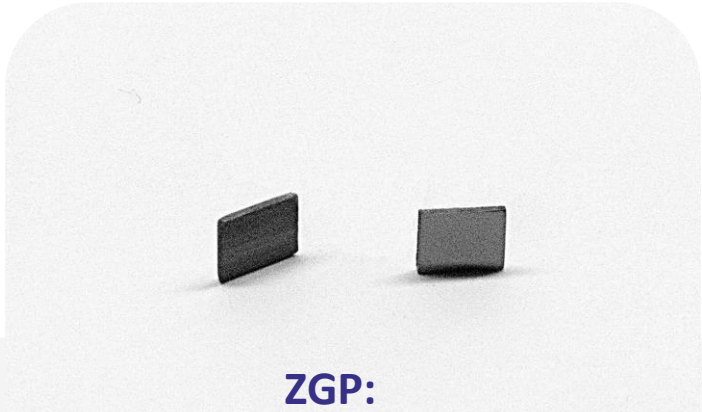
High LIDT metallic optics

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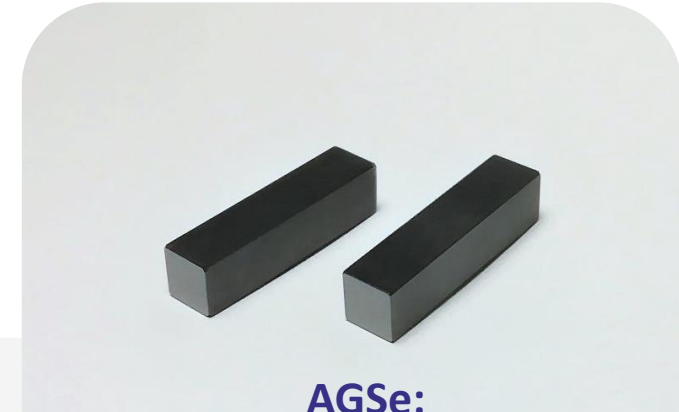
TOP PRODUCTS

Infrared coatings



ZGP:

AR @ 2.0-2.1 μm + AR @ 3.7-4.7 μm , AOI=0°



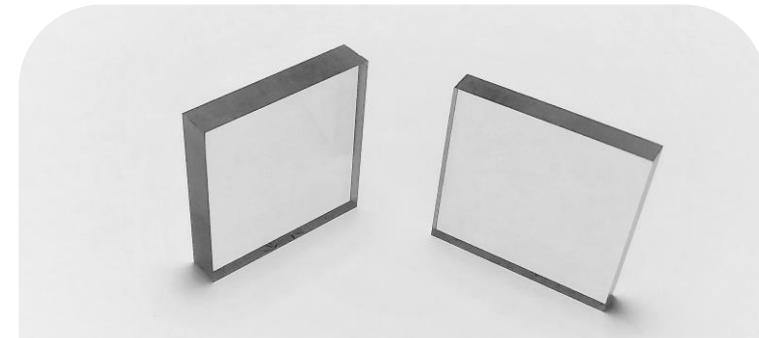
AGSe:

AR @ 1.5-2.0 μm + AR @ 6.0-10.0 μm , AOI=0°



Si and Ge windows:

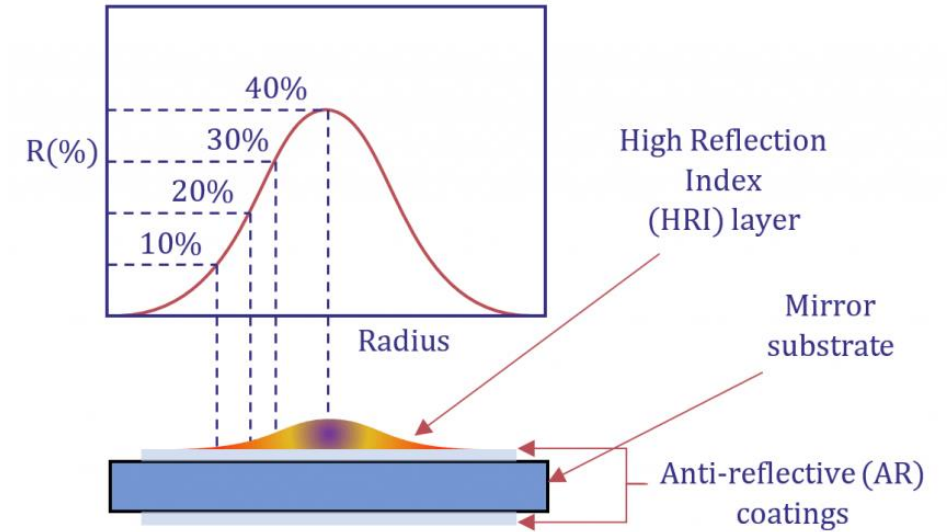
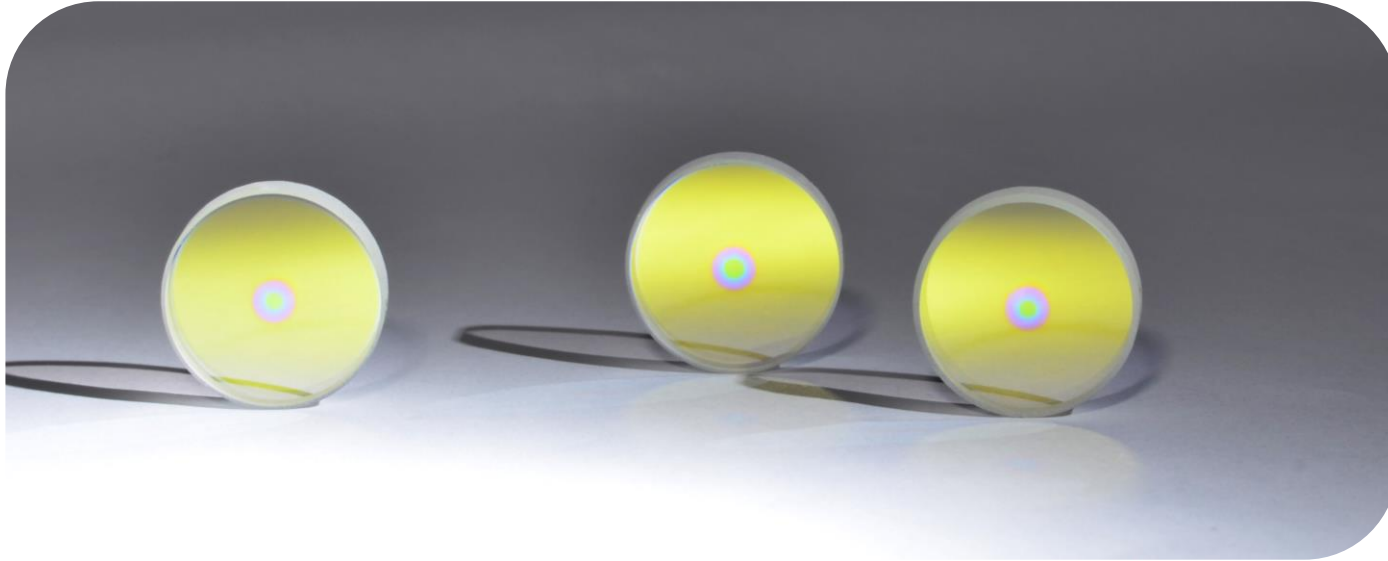
AR @ 3.0-5.0 μm , AOI = 0°



CALOMEL

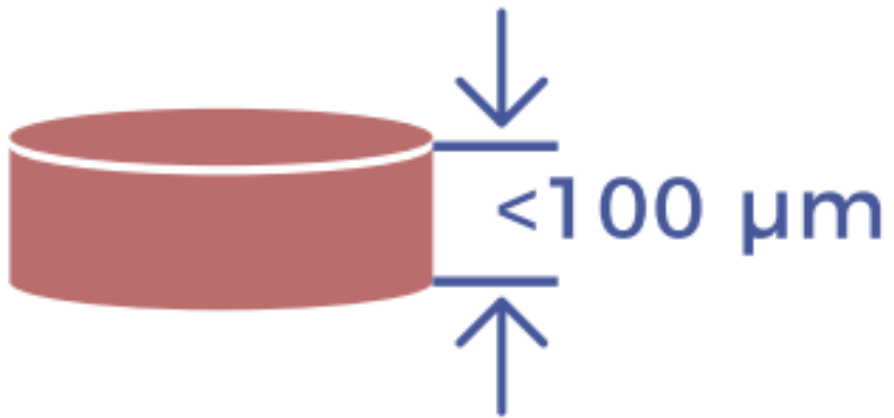
Side2: AR @ 8.0-10.0 μm , AOI = 0°

Gaussian Mirrors – for unstable resonators



$$R(r) = R_0 \exp \left[- \left(\frac{r}{w} \right)^k \right] \text{ or } R(r) = R_0 \exp \left[-2 \left(\frac{r}{w} \right)^k \right]$$

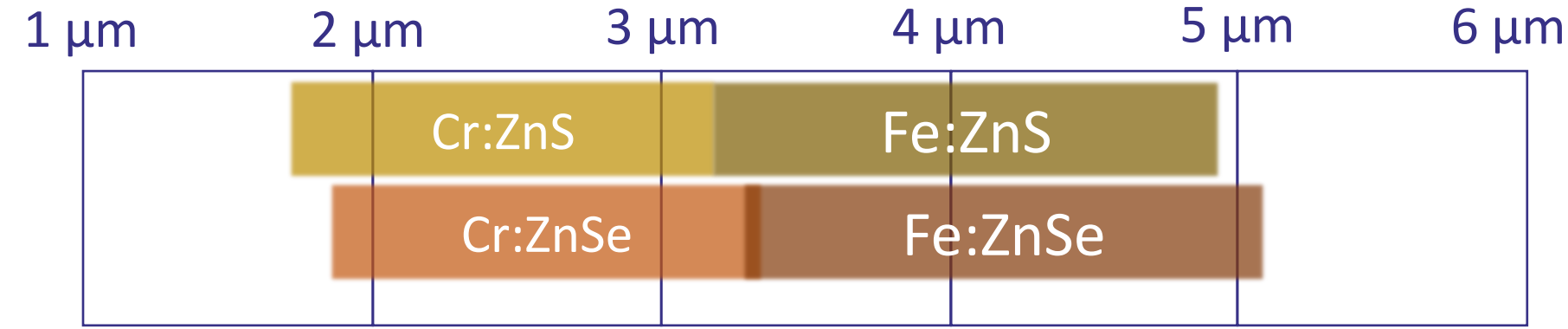
Thin laser crystal discs



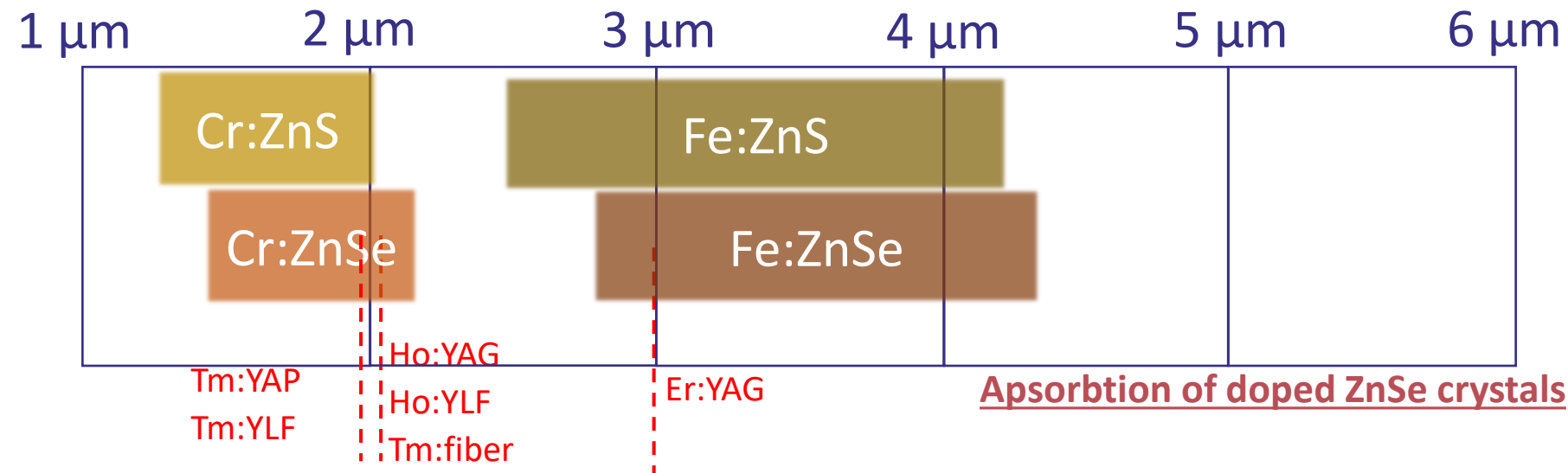
TWFD: $\lambda/10$ @ 632.8 nm
Polishing quality: 10-5 S-D

Experience with YAG and LuAG
Custom mirror coating

Doped ZnSe and ZnS (single) crystals



Emission of doped ZnSe crystals



Apsorbtion of doped ZnSe crystals

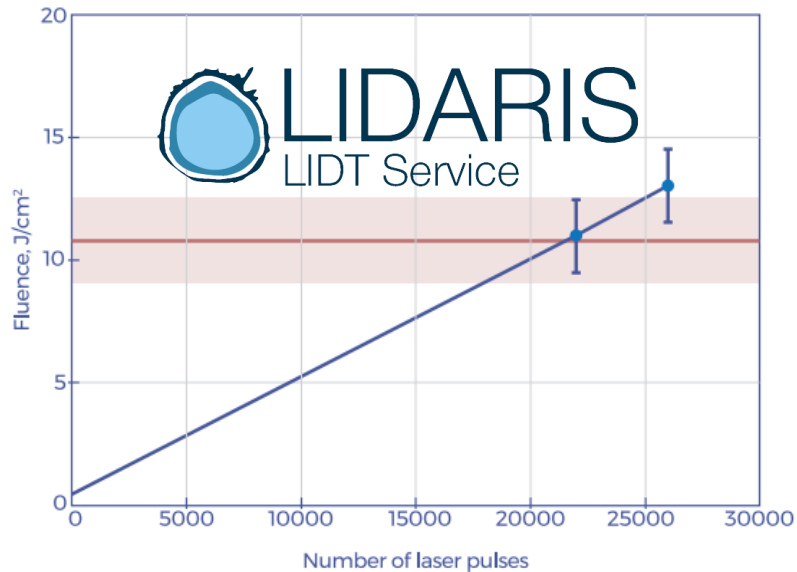


SINGLE-PASS CONFIGURATION

LBO for THG

S1: AR @ 1064 +532 nm; S2: AR @ 355 nm;

LIDT > 10 J/cm² @ 355 nm

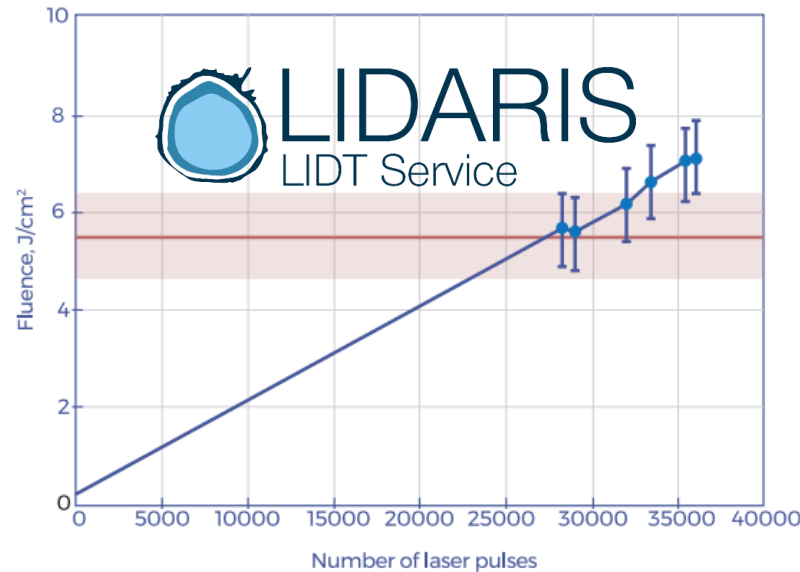


MULTI-PASS CONFIGURATION

LBO for THG

S1&S2: AR @ 355+532+1064 nm;

LIDT > 5.5 J/cm² @ 355 nm



Simulations for
your applications

Re-polishing and
re-coating

On demand
shipping



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