

## ABOUT US



 MEGA Materials is a spinoff of Pisa University, devoted to the growth of high-purity fluoride crystals, with application in solid-state lasers, optical cryo-coolers, metrology, energy and communication.





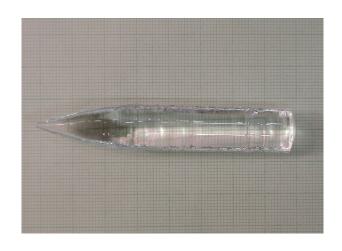
## **ABOUT US**

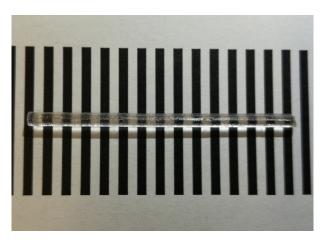
- Established: April 2019
- The founders of MEGA
  Materials are part of the
  Physics Department of Pisa
  University, in the <u>New</u>
  <u>Materials for Laser</u>
  <u>Applications</u> group.
- The group is operating in this research field since 1997, with more than 300 publications.



## **PRODUCTS**

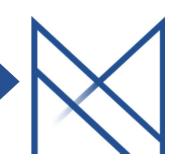






- We produce high-quality single crystals of fluorides via the Czochralski (CZ) tecnique. Our single-crystal boules have high omogeneity, excellent optical quality, and high purity.
- We produce high quality single crystal fibers of rareearth-doped fluorides using the micro pulling down techniques. This method allows to grow fibers with diameters unachievable with mechanical processing of larger boules.

## **PRODUCTS**







Our crystal can be doped with almost all trivalent rare-earth ions:

Pr, Nd, Eu, Tb, Dy, Ho, Er, Tm, Yb

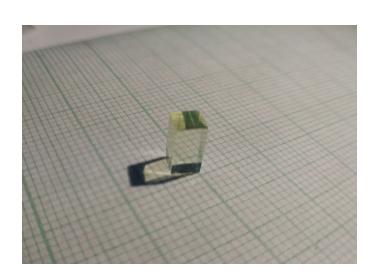
Co-dopings are also possible:

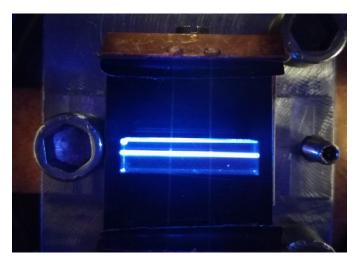
Tm/Ho, Dy/Tb, Pr/Ho, ...

## **SERVICES**

# Our additional services includes:

- Orientation, cut and polishing of crystal sample at laser-grade quality
- UV-VIS-NIR static and dynamic spectroscopy (absorption, fluorescence) from 10 K to room temperature
- Counseling and design on optical materials and systems, lasers and spectroscopy





## PEOPLE





Prof. Mauro TONELLI



Prof. Alberto DI LIETO



Dott. Giovanni CITTADINO



Dott. Eugenio DAMIANO

### CONTACTS



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