

# **DIVERSIFIED ADVANCED TECHNOLOGIES**

## **ADVANCED INORGANIC CHEMISTRY & MATERIALS SCIENCE**

- **THE COMPANY SPECIALIZES WITH ULTRA-HIGH TEMPERATURE TECHNOLOGIES FOR THE DEVELOPMENT AND PRODUCTION OF ADVANCED SYNTHETIC MATERIALS & INORGANIC COMPOUNDS**
  - **FROM Aluminum Boride ( $\text{AlB}_{12}$ ) to Zirconium Nitride ( $\text{ZrN}$ )**
  - **Ultra-High Temperature Compounds for Rockets and Reactors**
  - **High Purity Nanopowders for Anti-Counterfeiting Pigments**
  - **Ultra-Hard Materials for Cutting Tools, Ballistics, and Armor**
  - **Luminescent Materials for Lasers, Detectors, Converters, and Filters**
  - **Synthesis of Specialty Catalysts, Refractories, Electromagnetics**

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**MAIN BUILDING**

# **DIVERSIFIED ADVANCED TECHNOLOGIES**

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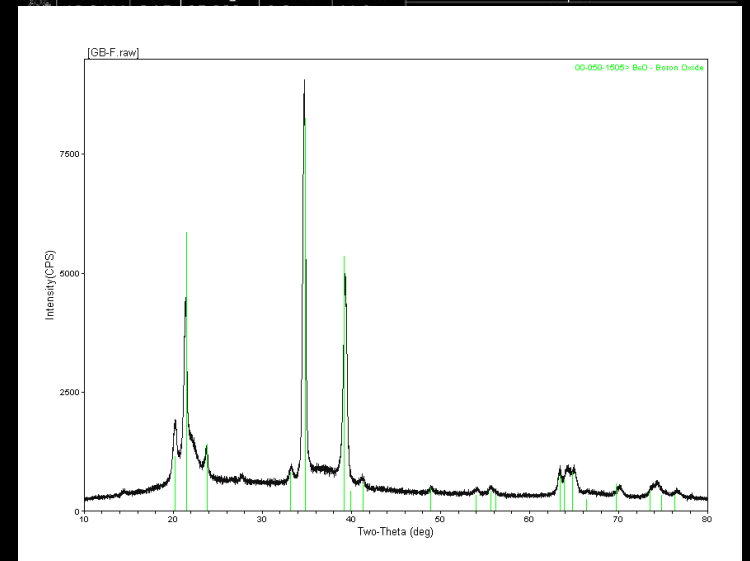
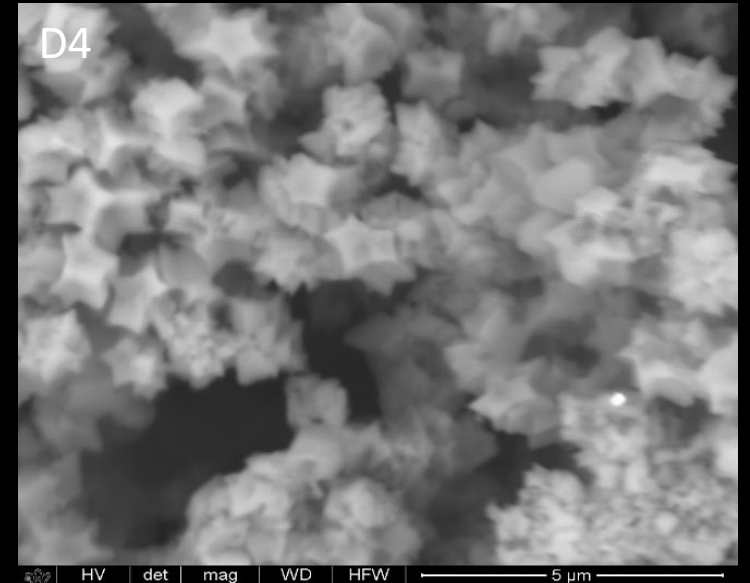
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# DIVERSIFIED ADVANCED TECHNOLOGIES

## ADVANCED INORGANIC CHEMISTRY & MATERIALS SCIENCE

### OPTICAL AND PHOTONIC MATERIALS

PURE & DOPED POWDERS, FUSED, CRYSTALS

#### FLUORIDES



#### OXIDES



Doped and complex compounds and mixtures



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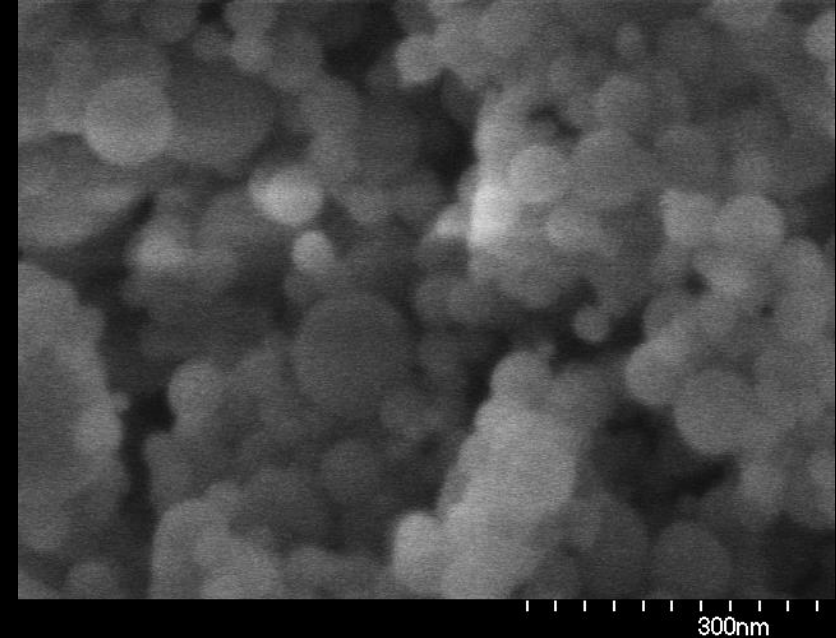


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Nanopowders

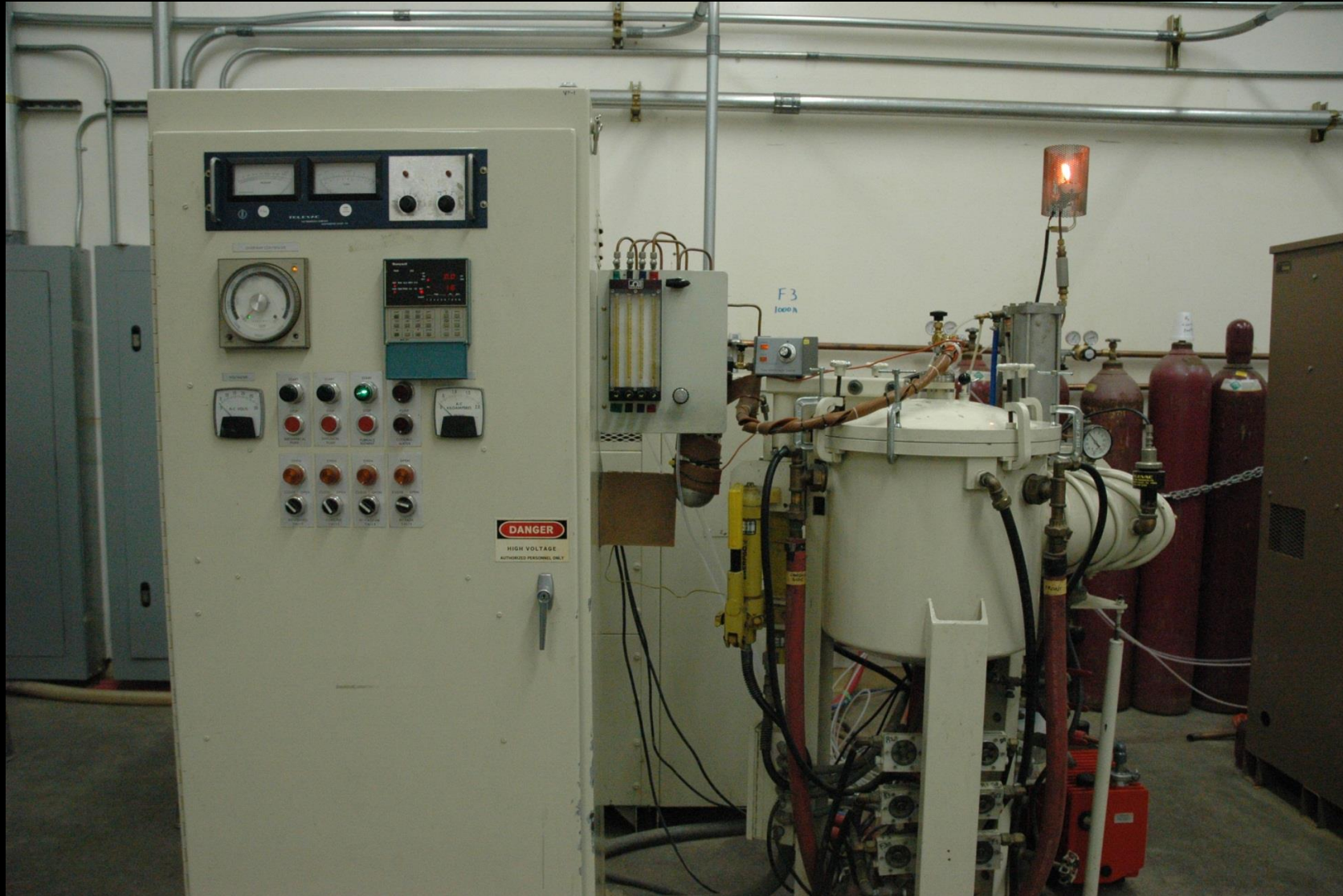


Transparent  
Ceramics



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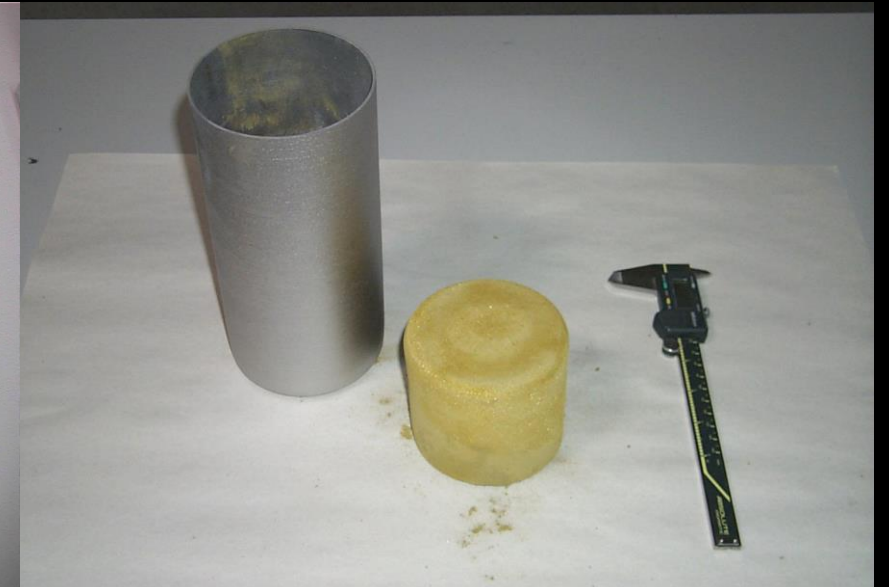
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### CARBIDES

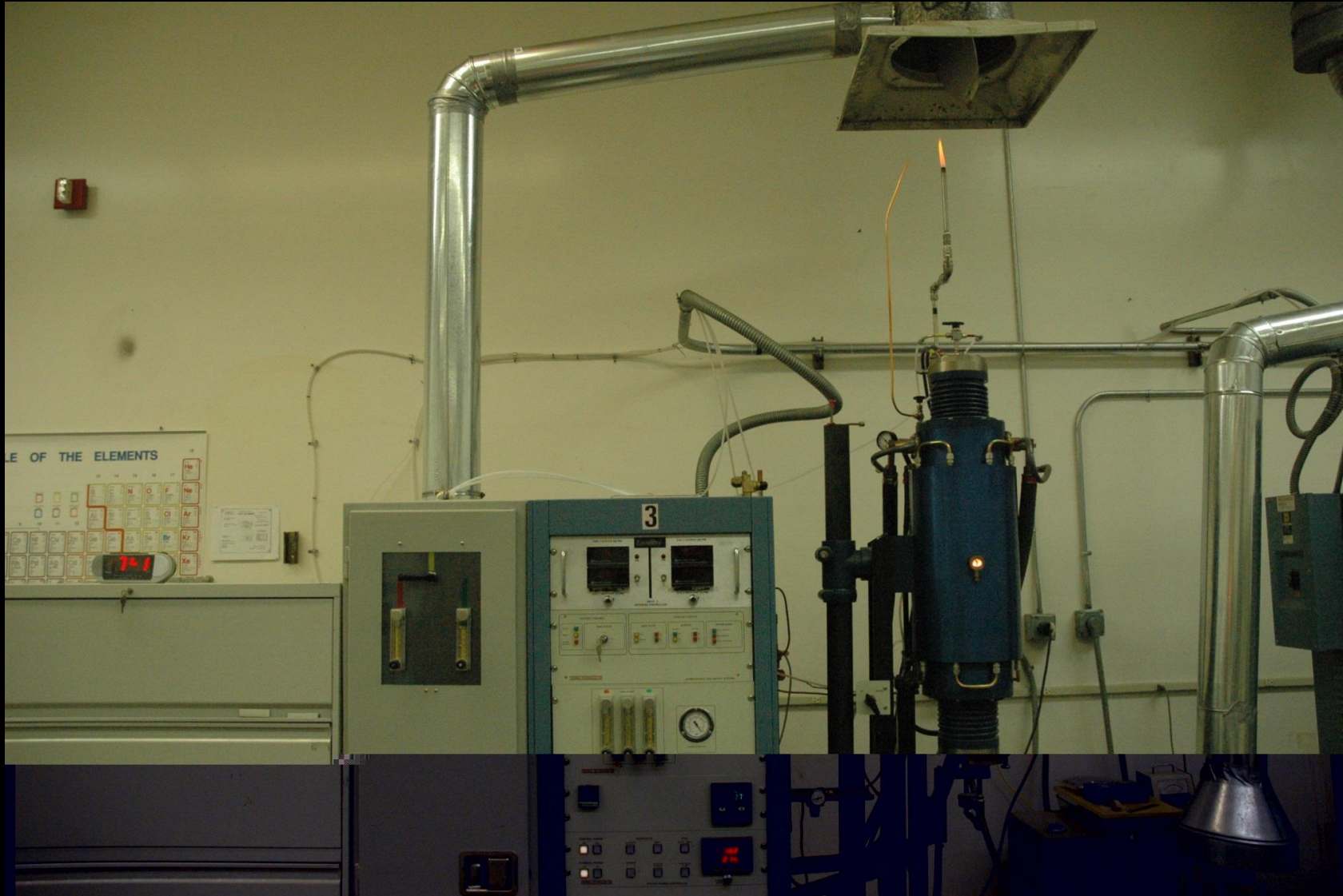


### NITRIDES



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### Melting Studies to 2500°C

Integrated Thermal Sciences, Inc. Santa Rosa CA

16:52:04

MR-28

10/04/97

URANIUM

URANIUM

Contact Angle 170+ U Metal  
Did Not Leave a Mark

Contact Angle 140  
U Bonded to Ceramic

TEMPERATURE 1810 C

ARGONNE NATIONAL LABORATORY

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# **DIVERSIFIED ADVANCED TECHNOLOGIES**

## **LASERS AND PHOTONIC MATERIALS LABORATORY**

**SYNTHESIS OF CHEMICALS FOR PRODUCTION OF ADVANCED MATERIALS**

**PRODUCTION OF POWDERS FOR ADVANCED CERAMICS AND CRYSTALS**

**SPECIALTY RARE-EARTH COMPOUNDS FOR LASERS, DETECTORS, OPTICS**



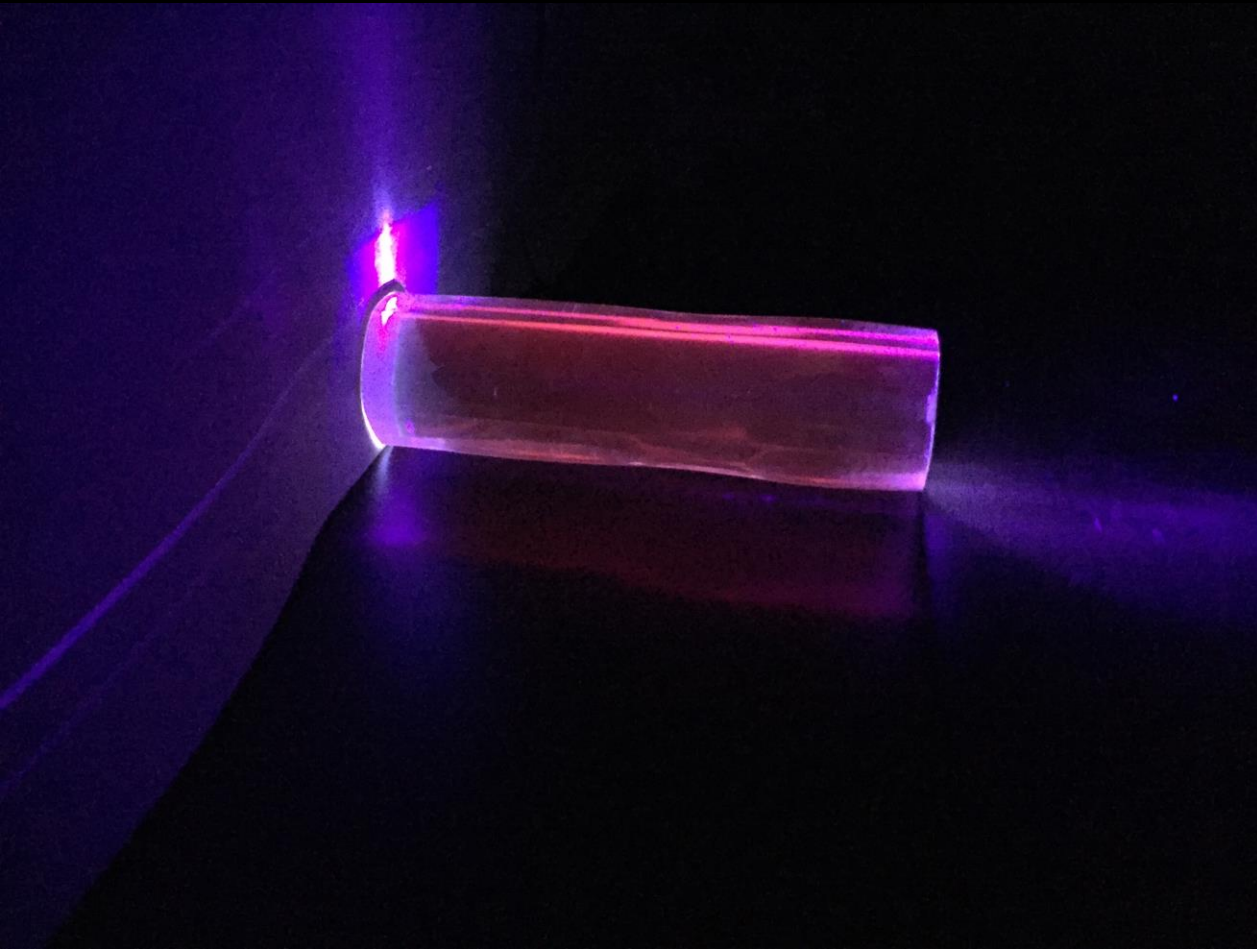
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## **LASERS AND PHOTONIC MATERIALS LABORATORY**



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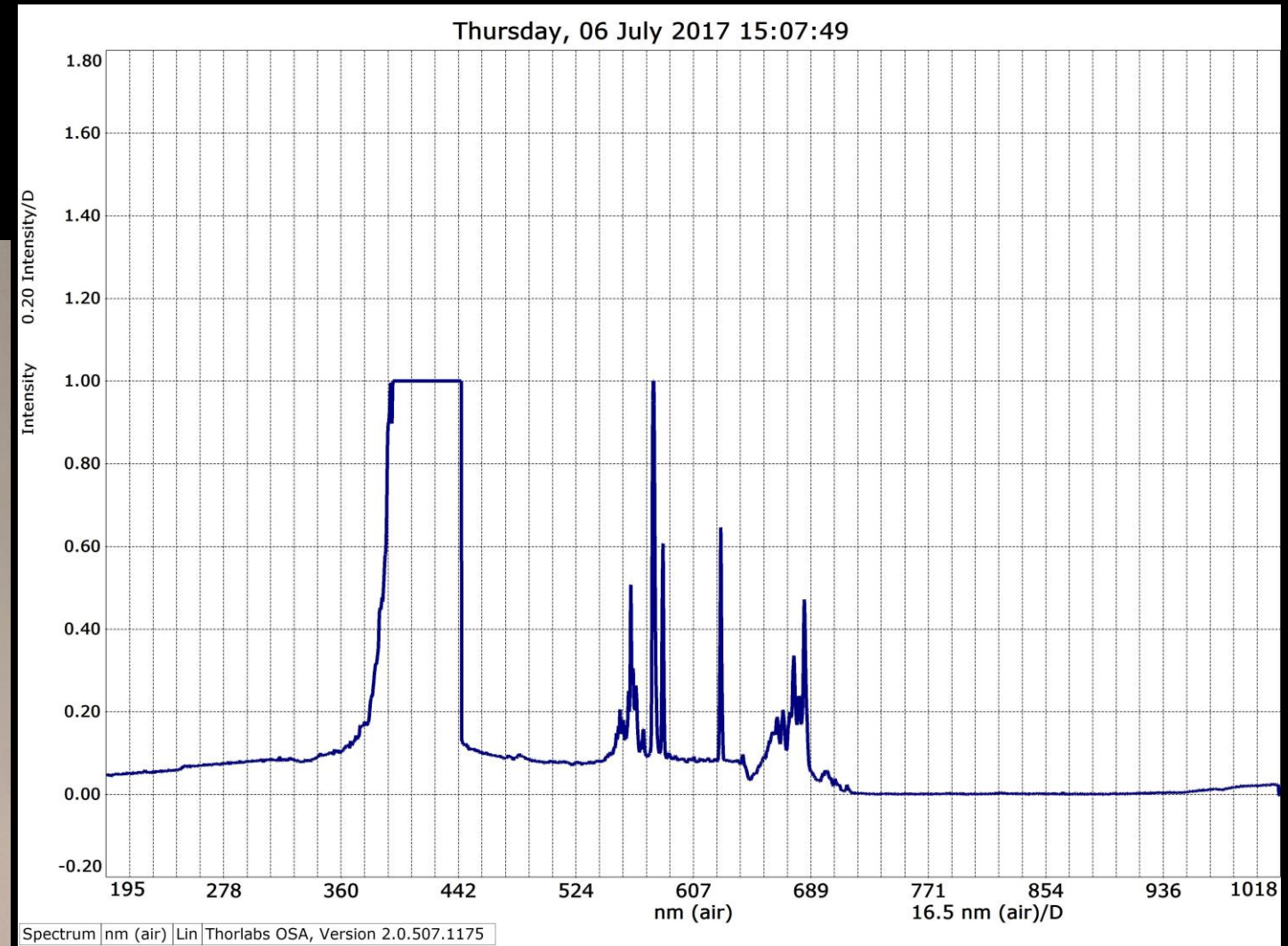
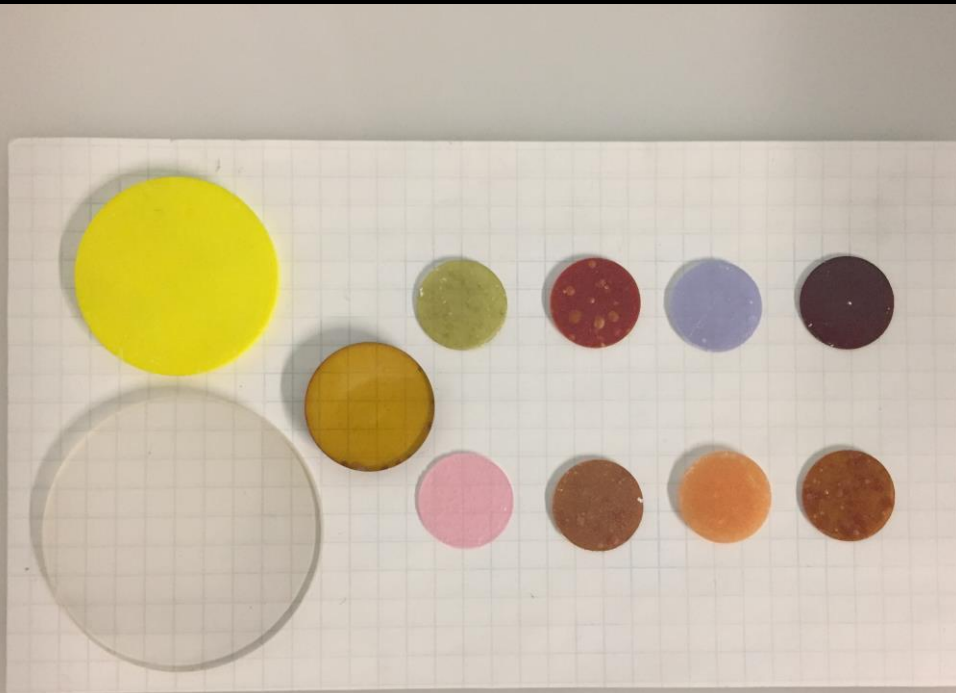
## **LASERS AND PHOTONIC MATERIALS LABORATORY**



# DIVERSIFIED ADVANCED TECHNOLOGIES

## LASERS AND PHOTONIC MATERIALS LABORATORY

### TRANSPARENT CERAMICS FOR DETECTORS



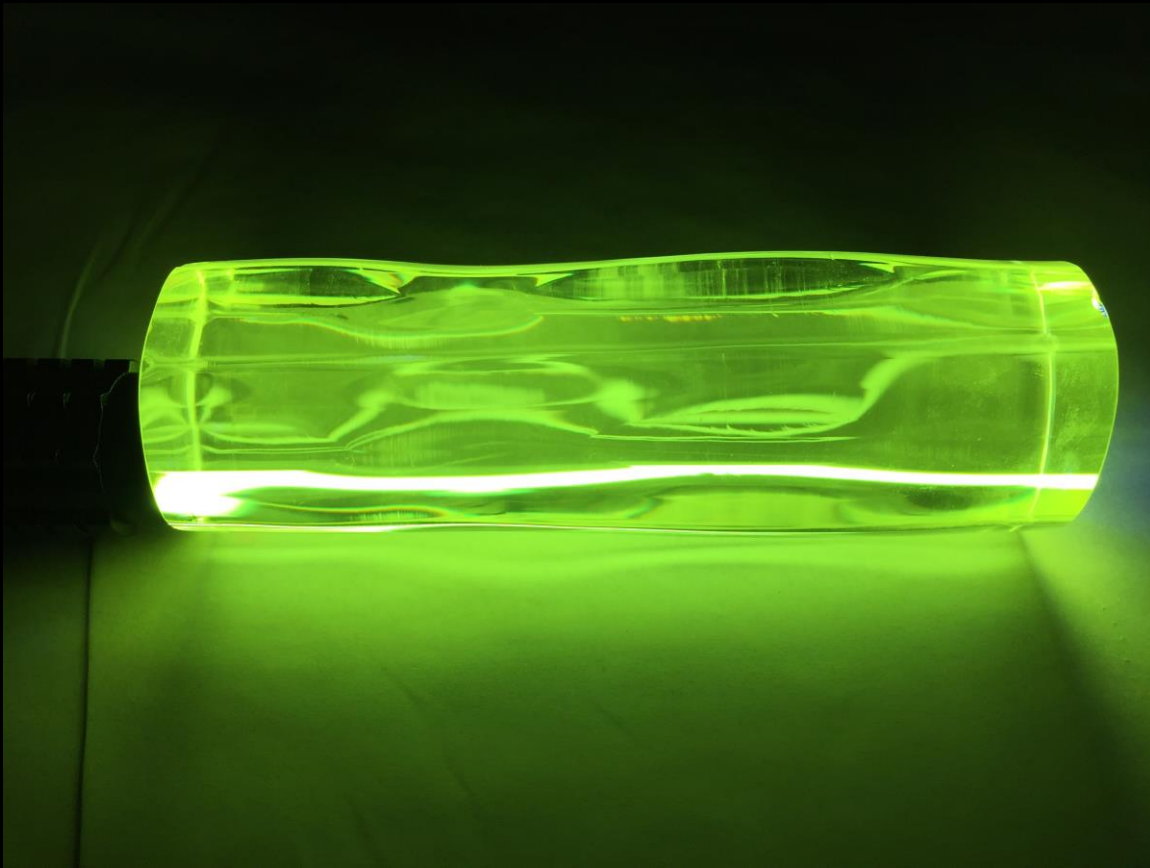
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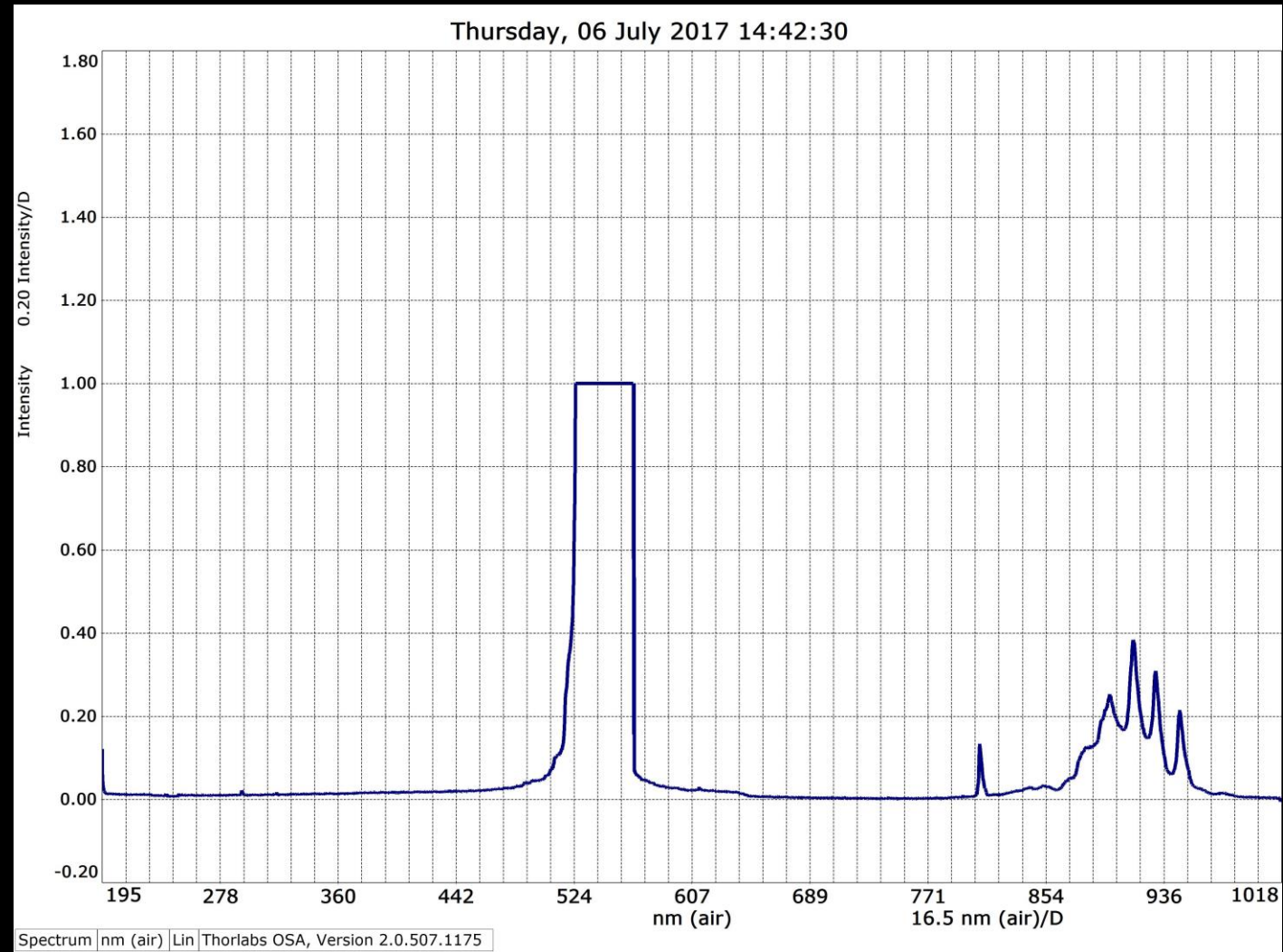
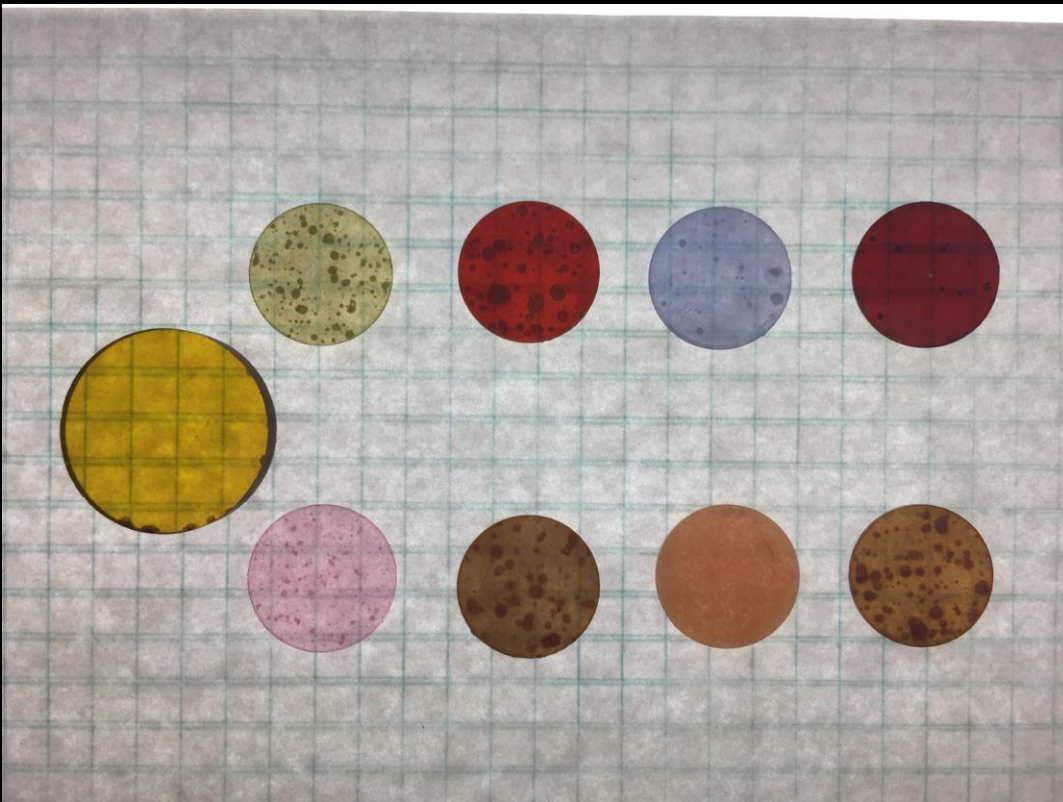
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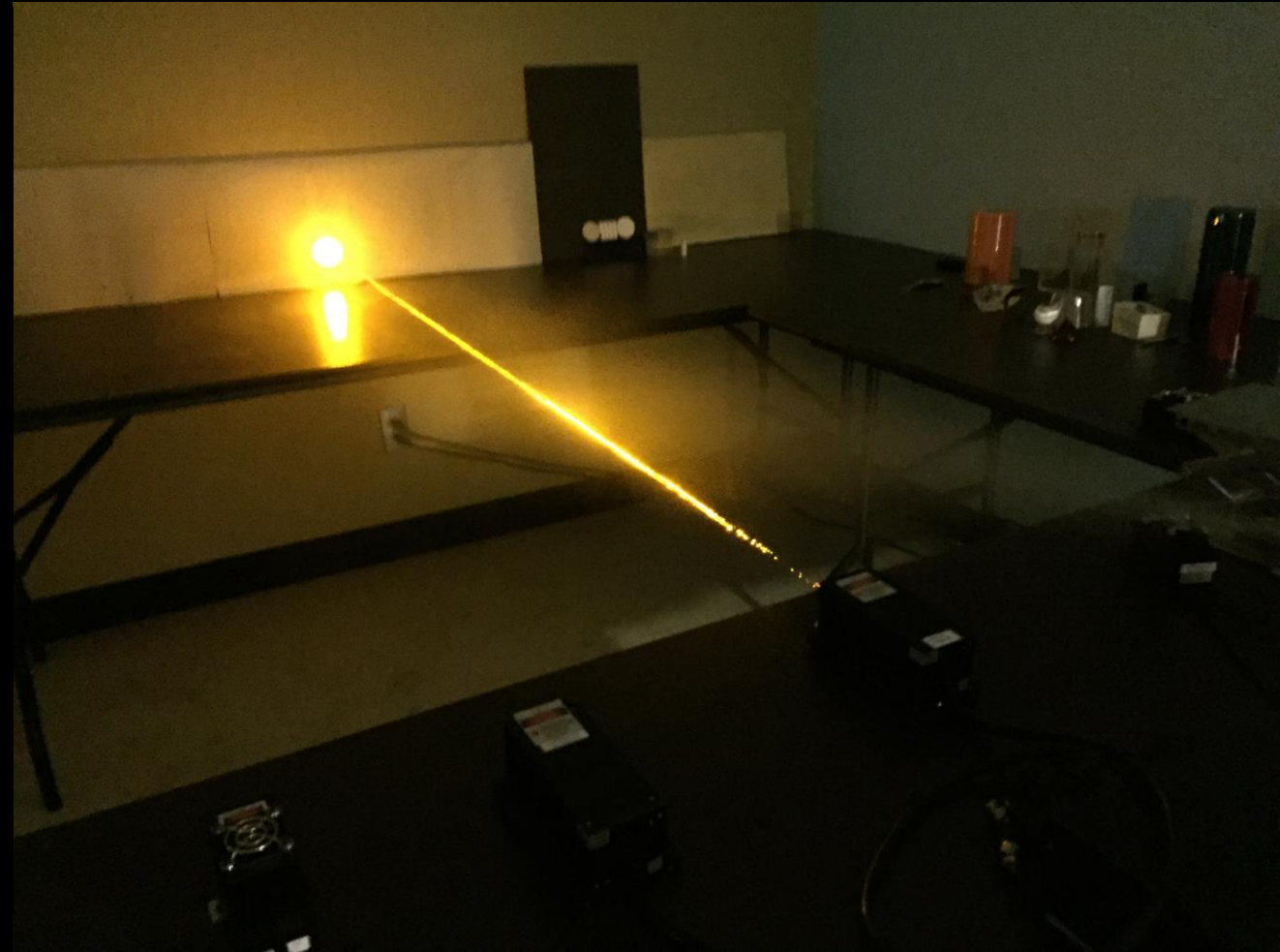
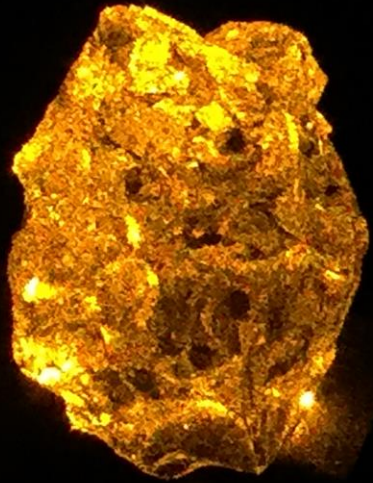
## LASERS AND PHOTONIC MATERIALS LABORATORY

### TRANSPARENT CERAMICS FOR DETECTORS



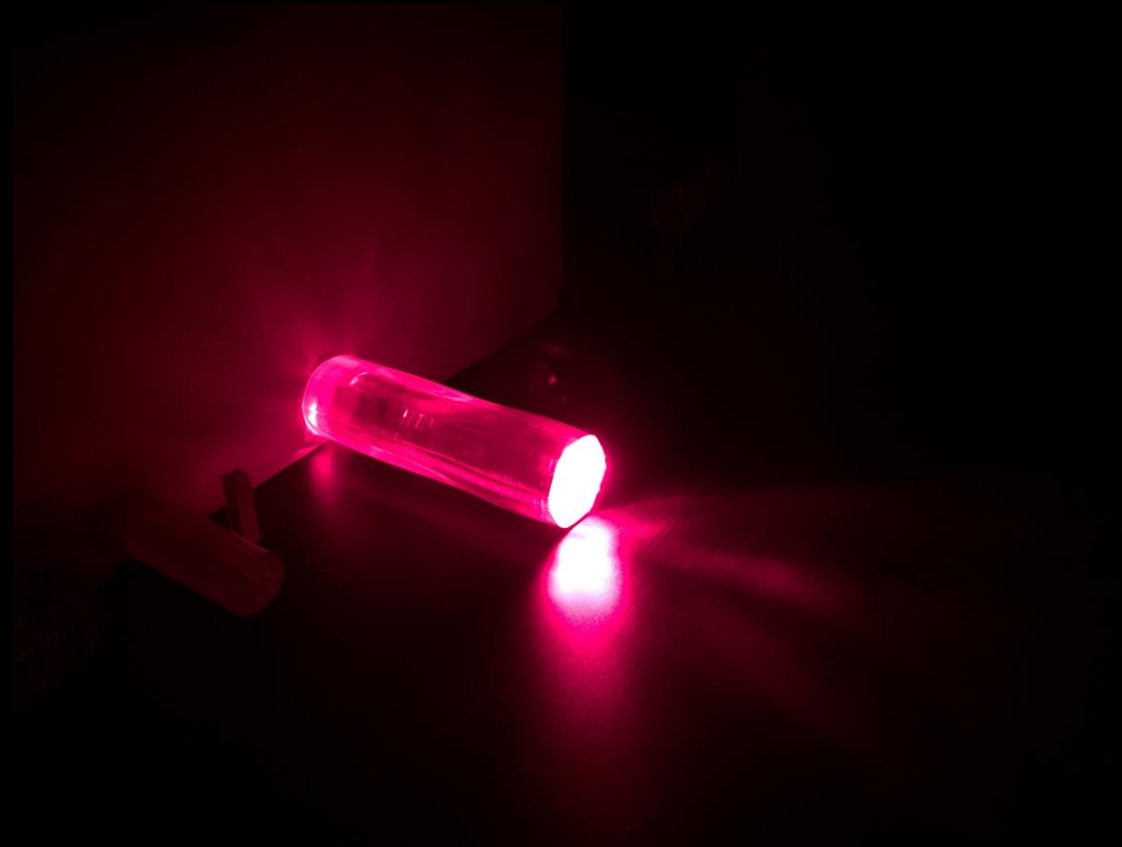
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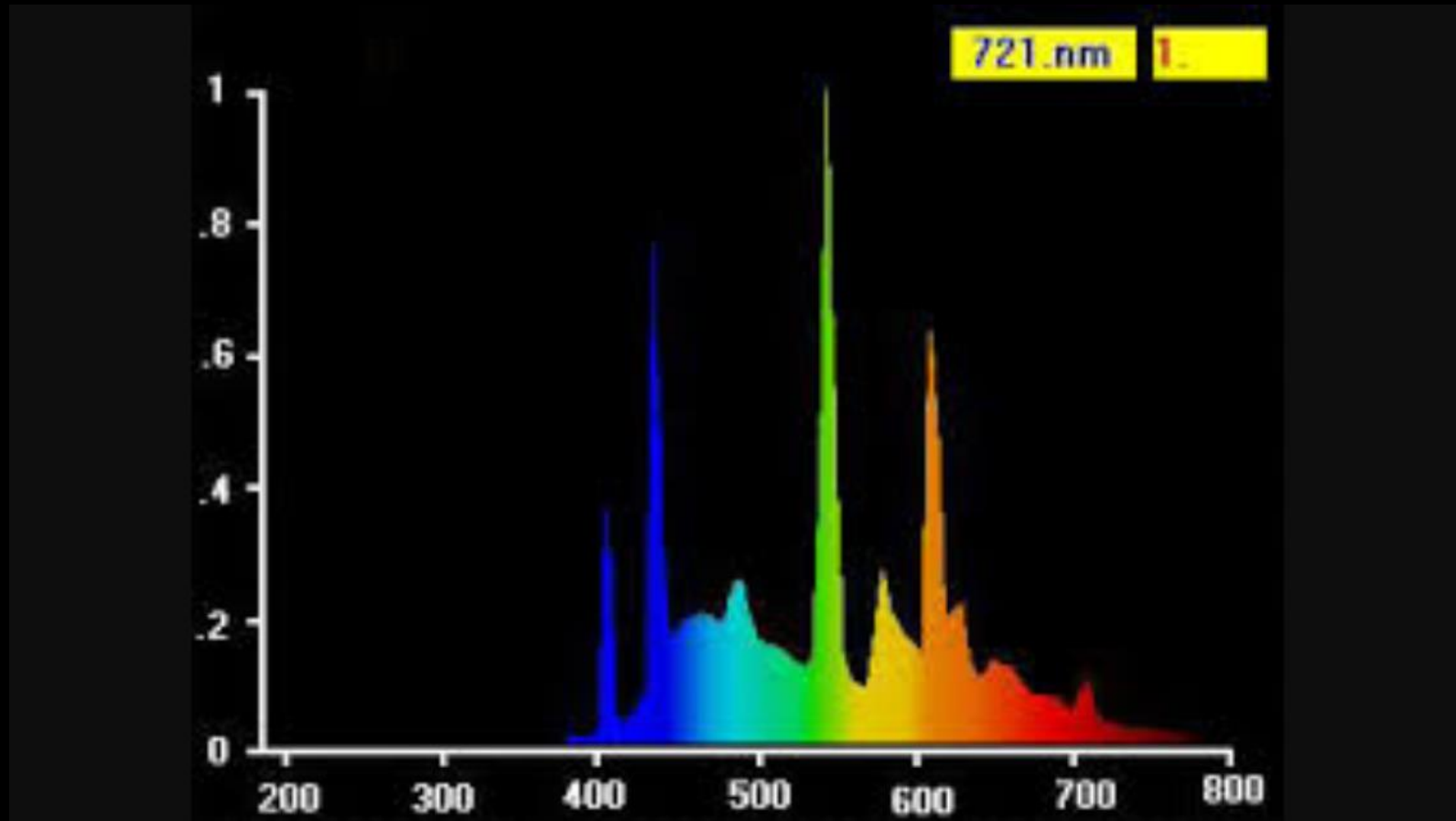
## **LASERS AND PHOTONIC MATERIALS LABORATORY**



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## LASERS AND PHOTONIC MATERIALS LABORATORY

### SPECTROPHOTOMETRY & SPECTRORADIOMETRY



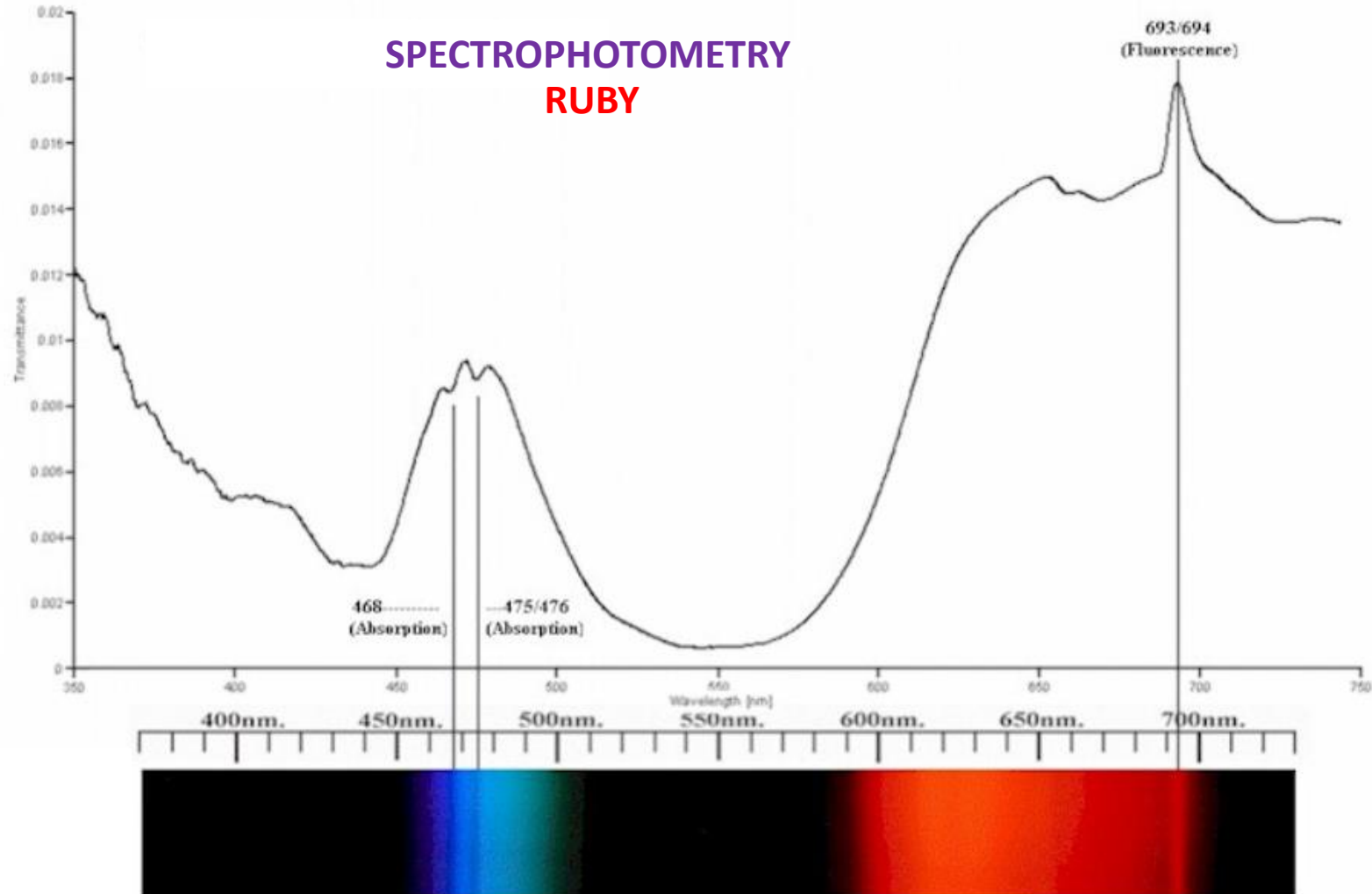
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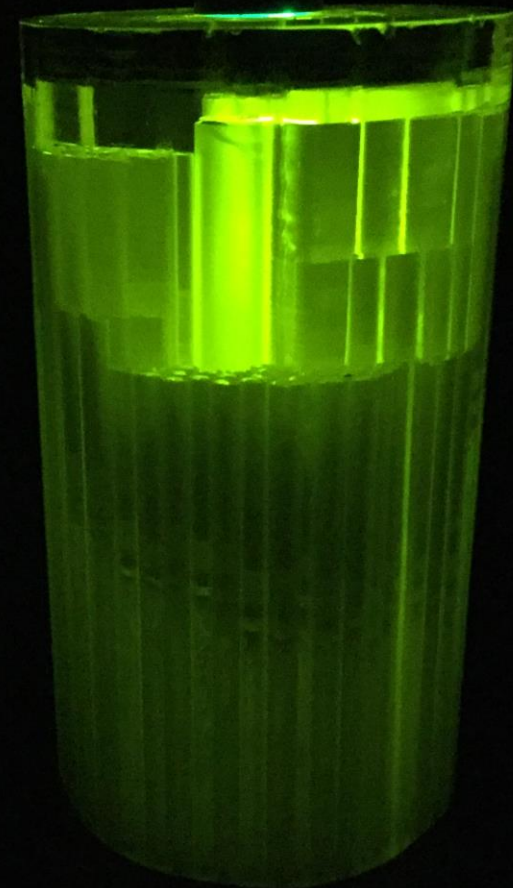
# **DIVERSIFIED ADVANCED TECHNOLOGIES**

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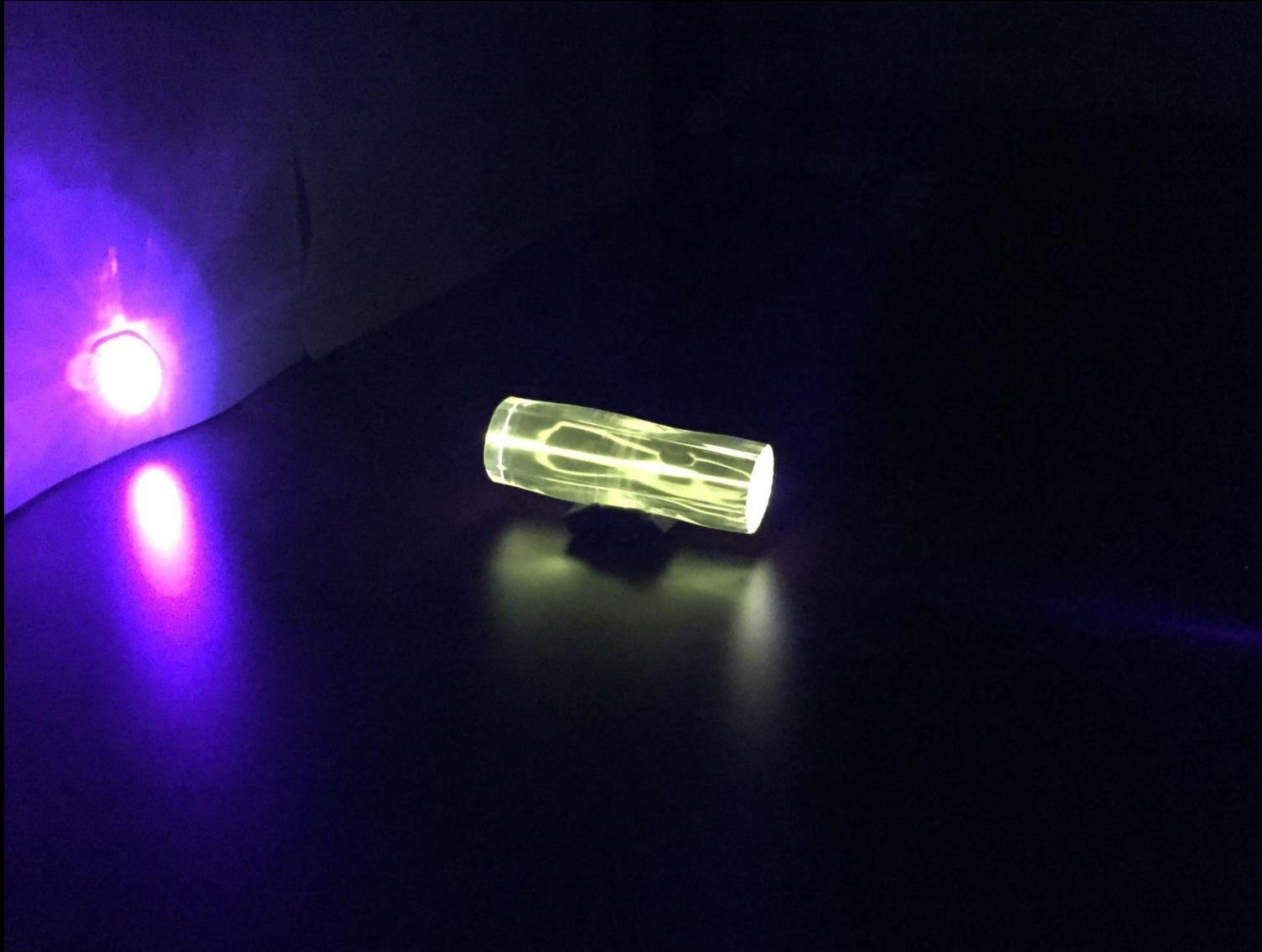
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## **LASERS AND PHOTONIC MATERIALS LABORATORY**



**DIVERSIFIED ADVANCED TECHNOLOGIES**

**THANK YOU FOR YOUR TIME**

**DIVERSIFIED ADVANCED TECHNOLOGIES  
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