

# Fe:ZnSe



## DESCRIPTION

CRYLINK's Fe:ZnSe crystal products, also known as iron doped zinc selenide crystals. It is a kind of laser crystal product with excellent comprehensive performance. It is widely used in medical surgery, chemical detection, free space communication, gas tracer and analysis and other fields. The product has the characteristics of high efficiency at room temperature, various density and concentration, high absorption coefficient. It can be used in mid-infrared optical parametric oscillator, 2800-3400 nm laser, infrared (IR) missile countermeasures system and other products.

## APPLICATIONS

- Medical surgery
- Chemical testing
- Gas tracing and analysis
- Free space communication
- Non-invasive medical diagnosis
- Cavity decay (CRD) spectroscopy
- Used as gain material in small laser systems
- As a passive Q switch for 2800-3400 nm lasers
- Infrared (IR) Missile Countermeasure System (Ship-based and Aircraft-Based)
- Light source spectrometry of pumped mid-infrared optical parametric oscillator (OPO)

## FEATURES

- Structure: Cubic
- Size: Up to 40×40×50mm
- Large absorption coefficient
- Wide gain bandwidth>500nm
- High performance at room temperature
- Various density concentrations are available



# Fe:ZnSe

## PARAMETERS

### BASIC PARAMETERS

|                                  |   |
|----------------------------------|---|
| Chemical Formula                 | Fe:ZnSe                                       |
| Crystal Structure                | Cubic   |
| Peak Intensity                   | 4.1MWcm <sup>-2</sup>                         |
| Absorption Cross-section         | 0.65×10 <sup>-18</sup> cm <sup>2</sup> @2.7μm |
| Absorption Coefficient           | 22cm <sup>-1</sup> @3μm                       |
| Surface Finish                   | 40/20   |
| Transmittance (Room Temperature) | 70%   |
| Flatness                         | λ/10@632nm                                    |
| Doping Concentration             | 2×10 <sup>19</sup> cm <sup>-1</sup>           |

## SPECTRA

