



Diagnose the threat and **mark what matters** with crystals that answer only to infrared light.

Almost nothing in blood, mud, seawater or smoke glows the way our crystals do. That gives two capabilities that are hard to get any other way: measured results from a single drop, and covert marks made for our readers.

— THE PROBLEM

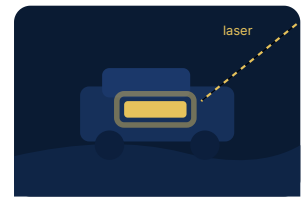
- ◆ Ordinary fluorescent labels fight background glow in real samples such as blood, dirt and colored fluids.
- ◆ In the field, the sample is the hard part: blood, saliva, water, air and powder each tend to need their own kit and specialist.
- ◆ Marks that eyes or ordinary cameras can see can be found, copied or avoided.

— WHAT INTELLIGENT MATERIAL DOES

- ◆ **Rapid assays.** IMS reporter crystals give a measured amount, not just a line, in under 20 minutes from a finger-prick or saliva sample.
- ◆ **One reader, many targets.** Each crystal recipe has its own color and glow time, so one strip can carry several tests, and strips can be archived and read again.
- ◆ **Short-wave infrared marks.** Sprays, paints, decals and contact traces stay invisible in daylight and light up for a matched laser and SWIR camera, day or night.
- ◆ **Supply-chain marking.** Linked optical codes on board, component and label, read by one handheld device.



Daylight camera
the mark is not visible



Laser + SWIR camera
only the crystal mark answers

The same vehicle, two cameras. Only the crystal mark answers the laser. **ILLUSTRATION**

— PROOF

IN USE

Covert marking and traceability in U.S. government programs since 2009.

DEMONSTRATED

Built and tested

Three biodefense assays (anthrax, ricin and radiation dose). IMS engineered the reporter crystals in rapid tests developed with SRI International under BARDA and DHS funding.

DEMONSTRATED

Range-tested

Optimized taggants detected at **up to 500 m** on an outdoor range, in daylight and at night, under the OSD Rapid Innovation Fund.

— HOW TO WORK WITH US

1 Sample

Ask for a demonstration of marks or reporter crystals matched to your program.

2 Pilot

Evaluate an assay or a marking concept on your samples, materials and readers.

3 License and supply

IMS licenses the IP; NovaVera Corp. supplies Intelligent Material under its exclusive license.

Contact: <https://www.intelligentmaterial.com/contact/?topic=Defense#contact-form>

We reply within two business days.