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# EnSpectr RaPort One

Hand-held Raman analyzer

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EnSpectr  
Enhanced Spectrometry



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## Company Profile

Enhanced Spectrometry, Inc. is a manufacturer and supplier of innovative portable Raman and luminescent spectrometry solutions and related software.

The company develops and promotes portable Raman and luminescent spectrometry solutions for advanced substances control, quality inspection, real-time testing and innovative brand protection based on proprietary technology of substances detection, recognition and coding of information. Enhanced Spectrometry focuses on various application fields: Pharmaceuticals, Gemmology, Bioscience, Chemical Industry, Research and Education, Forensics and Security. Our customers all over the world use our instruments in cutting-edge scientific researches, pharmaceutical and bioscience companies, gemmology and criminalistics laboratories; our solutions are applied in art galleries, museums, and are used by Customs service.

The basis of the EnSpectr team consists of leading academic researchers in the field of Raman spectroscopy from the [Laboratory of nonequilibrium electronic processes](#) ISSP.

### Brief description:

- Established in 2009
- Specialists with 20 years of Raman and Luminescence technologies experience
- Extensive Intellectual Property covering key aspects of products
- Advantages based on price and performance
- Tailored for particular customer needs to cover all necessary applications

At the moment instruments of the company have been successfully installed in the UK, India, Russia, Germany, Japan, Vietnam, Italy, Laos, the USA, Hong Kong, Denmark, Taiwan, Israel, Mexico, South Korea, Bangladesh, France, Thailand and other countries. Enhanced Spectrometry offers products for analyses in different industries:

- R532+ Raman & Luminescent Analyzer
- L405 Luminescent Analyzer
- M532 Raman Microscope
- MixSplitter for powder mixtures analysis
- RaPort Handheld device for chemical analysis
- Proprietary SERS substrates for determining of very low concentrations of substances
- L365 Luminescent fiber-spectrometer
- R785 Raman Analyzer

## RaPort One - Handheld Raman Analyzer

Bringing qualities of laboratory analysis into field applications, **RaPort** by EnSpectr secures precise material identification with utmost mobility. **RaPort** enables real-time and accurate identification of various chemical substances and compounds by analyzing its unique Raman spectrum of molecular vibrations. Analysis can be done by direct contact with material or through transparent or semitransparent packaging. Fully portable device, lightweight, supplied with in-built battery and wireless data transfer, easily acquires spectra of various chemicals and materials.

Have **RaPort** with your Android or Windows tablet / smartphone and enjoy the simplicity of analysis with EnSpectr mobile software. Create your own database, work with spectra, and manage measurement options within one user-friendly interface. Identify pieces of substance at the concentration as low as 1% due to unique algorithm of recognition and quality of measurements.

## Features:

- **Real-time in-situ identification**
- **Non-destructive detection**
- **Detected substances: liquids, powders, gels, solids**
- Detection through transparent / semitransparent package (glass, plastic)
- Qualitative and quantitative analysis of substances and mixtures
- **Up to 7 hours of continuous autonomous operation**
- **Independent power supply and line supply**
- Data transmission via Bluetooth connection
- **Android and Windows software**
- **Large database can be complemented by user**
- 3 sec per measurement and recognition
- Time to start operation mode - 1- 3 min
- **Weight ~2 kg (without tablet / smartphone)**
- No radiation or X-Ray sources

## EnSpectr PRO Software

- Substances are recognized by both narrow (Raman) lines and wide (luminescence) lines
  - Adjustable laser power
  - The possibility of averaging over several measurements
  - Automatic subtraction of dark current
  - Spectra are saved in .dat extension and can be converted into .xls
  - Enables saving spectra into a database and using them afterwards for automatic substance identification
  - A specialized database of Raman spectra can be ordered additionally upon request
  - Databases can be comprised and enlarged by the client himself
  - Automatic subtraction of systematic error and noise
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