SPECTRAL EVOLUTION

EZ-ID™

Mineral Identification Software & Mineral Libraries

Mineral Identification **In Seconds!**

Quickly Identify Your Target Mineral with EZ-ID™

Mineral identification has never been faster, easier, or more accurate than with the EZ-ID™ software from Spectral Evolution. EZ-ID™ provides mineral identification capabilities for the oreXpress™, oreXplorer™, and oreXpert™ field portable spectrometers for mining exploration, core logging, alteration mapping or academic research.

You can perform mineral identification in seconds by matching your target minerals against the latest USGS library of 266 minerals and 466 spectra. The optional SPECMin™ and GeoSPEC™ high-resolution libraries provide an additional 2310 scans for fast identification of over 794 minerals.

EZ-ID™ instantly compares the target spectra versus the library, allowing you to select regions of interest for closer examination. It also provides the most likely matches with weighted scores and offers SCALARS (Al-OH, KCl, ISM, CSM, Mg-OH, FE3t, Al-Fe-Mg, Fe-OH, FE3i, Epidote/Chlorite, Alunite, H2O_W) to enhance the geologist's understanding of crystallinity changes, alteration pattern shifts and geochemical conditions.

A batch processing capability allows a geologist to select target files, along with their associated information and rankings, and import data into a Microsoft Excel spreadsheet, a comma delimited file, or a tab delimited file, for geological modeling or mine planning. EZ-ID™ software can be used on unknown samples found on outcrops, in pits, hand samples, cores, or anywhere mineral identification is performed.

EZ-ID™ features include:

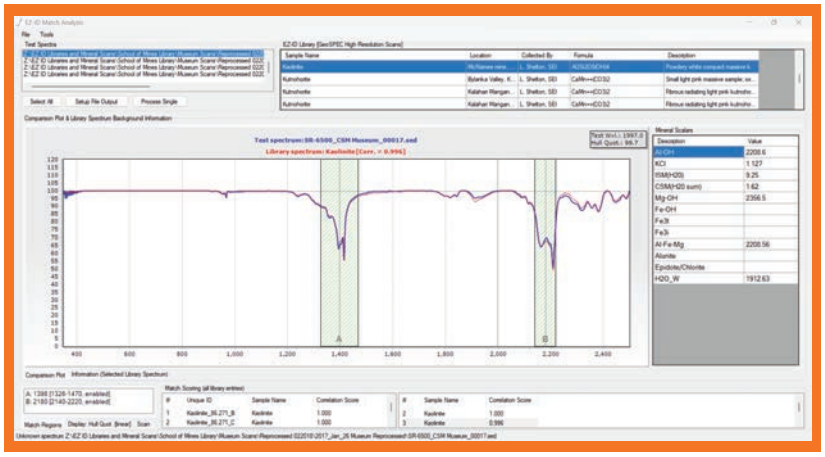
- Fast and accurate identification of unknown minerals to known library samples
- Easy-to-use, just collect your scan using the oreXpress™, oreXplorer™ or the ultra-high resolution oreXpert™ and see results in real time
- SCALARS provide a geologist with a better understanding of mineral formation conditions
- Software provides a weighted score for best matches
- Save spectral match regions of interest for comparisons when looking for similar minerals
- The Library Builder allows you to create your own custom library of minerals
- Optional conversion of ASD files for use with EZ-ID™ – save your existing libraries and databases
- EZ-ID™ works through the DARWin™ SP Data Acquisition software interface for all Spectral Evolution spectrometers and spectroradiometers
- EZ-ID™ can also be installed on our rugged field tablet for mineral identification in the field

Software and Spectral Evolution Field Spectrometers

Sample scans identified with EZ-ID™

Alunite

Alunite identified by EZ-ID™ with a match to the SPECMin™ library, available along with the USGS and GeoSPEC™ libraries. This sample shows the characteristic absorption feature region between 1475-1495nm that is key in distinguishing between K-Alunite and Na-Alunite.



Kaolinite

Kaolinite (a clay) identified by the GeoSPEC™ library, showing characteristic absorption features at 960, 1400/1412, 2100/2206, 2310, 2350, and 2380 nm. In this sample there is some iron in the mix as represented by the large feature around 400-500 nm and a large water feature at 1900 nm.

Pyrophyllite

This sample of pyrophyllite, identified by the GeoSPEC™ library, shows the characteristic features at 1396, 2066/2075, 2168, and 2320 nm. Using the multiple scoring column feature in EZ-ID™, the analysis is fine-tuned by focusing on different combinations of features, all in one display.

EZ-ID™ provides geologists, geoscientists, and geometallurgists with the tools to identify minerals, create more accurate mineral maps and vector alteration to mineralization.

Porphyry Alteration Minerals
Sericite/Muscovite, Chlorite, Biotite, Anhydrite, Epidote, Illite, Kaolinite
Alunite, Calcite, Smectite

Porphyry Leach Cap Minerals
Jarosite, Alunite, Pyrophyllite, Diaspore, Zunyite, Dickite

Epithermal—Low Sulfidation Alteration Minerals
Illite, Smectite, Montmorillonite, Kaolinite, Calcite, Buddingtonite
Chlorite, Epidote

Epithermal—High Sulfidation Alteration Minerals
Alunite, Pyrophyllite, Kaolinite, Illite, Chlorite, Diaspore, Dickite
Smectite, Montmorillonite

IOCG Alteration Minerals
Albite, Sericite/Muscovite, Biotite, Calcite, Chlorite, Epidote, Phlogopite

Rare Earth Minerals
Apatite, Monazite, Bastnaesite, Parasite, Xenotime

Uranium
Uraninite, Sericite, Dickite, Chlorite, Kaolinite, Illite, Pyrite, Chalcopyrite

SPECTRAL EVOLUTION

26 Parkridge Road, Suite 104
Haverhill, MA 01835 USA
Tel: 978.687.1833 | Fax: 978.945.0372
Email: sales@spectralevolution.com
www.spectralevolution.com