

KestrelTM OMA III

Real-Time Diode-Array Spectroscopy Software



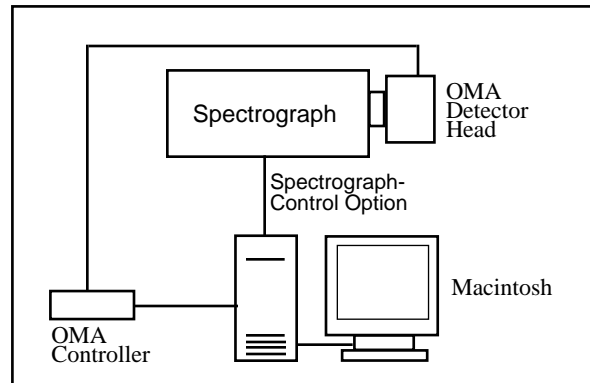
KestrelTM OMA III software is designed for data acquisition and analysis in spectroscopy applications with models 1461 and 1471 OMA[®] controllers from EG&G Princeton Applied Research Corporation, and your Macintosh[®] computer.

□ Data Acquisition

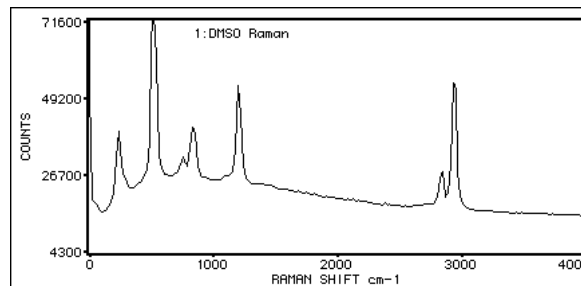
- Up to 30000 curves memories in RAM for spectral plotting and analysis.
- Sum multiple exposures into curve memories.
- Select from a variety of pre-programmed data acquisition modes in OMA controller.
- Use OMA controller's Data Acquisition Design programming language for customized processes.
- Automatic background subtraction, flat-field correction.
- Conversion of data to log or absorbance scales.
- Auto-save data to disk or RAM disk.
- Auto-scan λ , auto-calibrate spectra in nm, Raman cm^{-1} shift with fully integrated spectrograph control (optional extra).
- *KestrelScriptTM* Apple-Event scripting for sophisticated process control. Real-time controllable from National Instruments' LabView[®] using *DoScript VI*.

□ Data Display

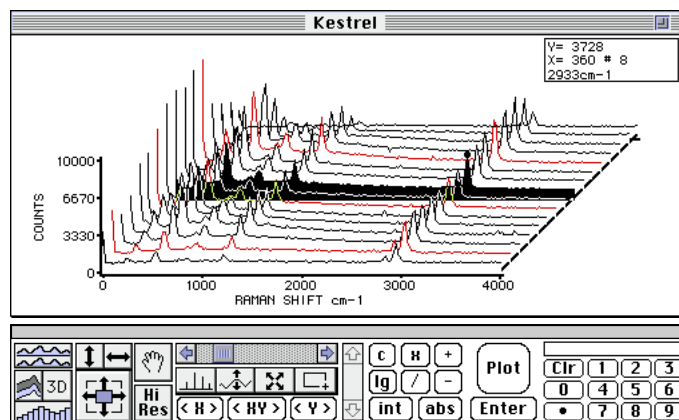
- 2-D and 3-D overlay curve plots.
- Channel profile Y(t)-type plot (Z axis slice).
- Line, bar and scatter plot styles with color fill.
- Drag plot handles to control 3D perspective, size.
- Graphic curve directory with "mini-curve" plots.
- Spectral calibration using spline fits, or accurate "one-point" *KestrelCalTM* for grating spectrographs.
- Monitor real-time counts of any point in plot.
- Real-time peak finder determines centroid and width. Adjustable peak threshold discriminates against noise.



Add a spectrograph and a Macintosh to complete your Kestrel spectroscopy system. (Spectrograph-control option uses RS-232 or GPIB connection.)



DMSO Raman spectrum obtained with Kestrel.



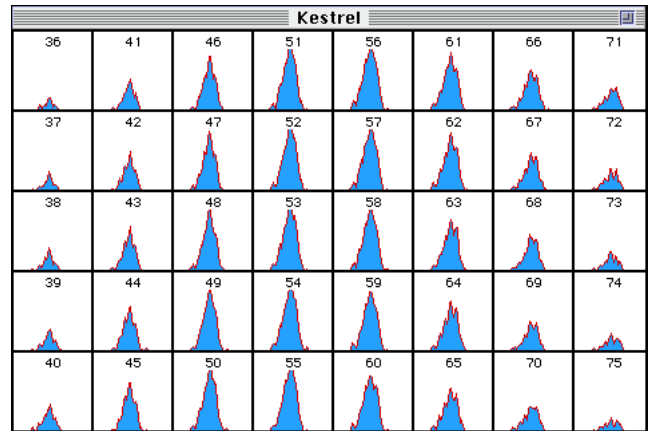
Kestrel has versatile graphing and data-analysis options. Control Palette (bottom) yields quick access to numeric keypad and other tools.

❑ Other Kestrel OMA III Features

- Use the mouse to zoom and pan the curve-plot displays in "live action". Zoom display while scanning the OMA..
- Run curve-movies, live scans as animated 3D waterfall graphs.
- Export curve data as ASCII text or Igor™ text format. Import curves in standard ASCII spreadsheet format.
- Print plots in grayscale or color on any Mac printer. Copy plots to the clipboard for pasting into other documents.

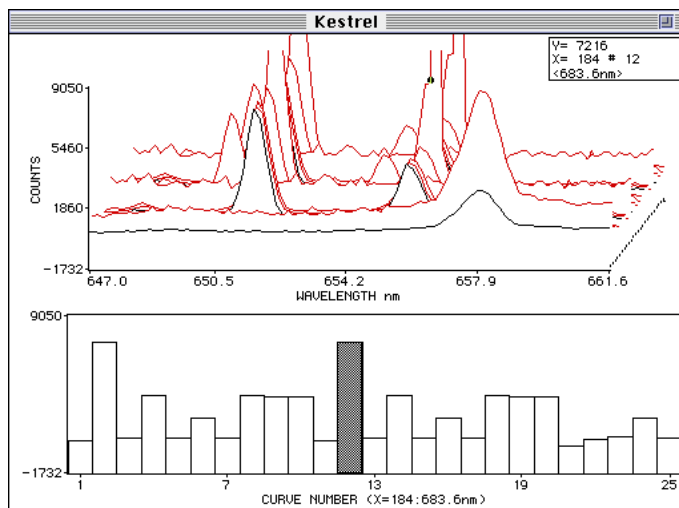
❑ Compatibility

- Recommended CPUs for real-time camera control include any Macintosh - including Power Mac, Mac II series, Quadra®, PowerBook®, LC, Centris®.
- OMA controller connects via National Instrument GPIB interface or serial interface (modem port) connection.
- System 6.0.5 or later and minimum 2 MB RAM required. System 7.0 or later and 4 MB RAM recommended.
- Spectrograph-control option available for popular spectrographs. (Contact Rhea Corp. for an up-to-date list of supported spectrograph models.)
- Works with model 1461 or 1471 OMA III controller manufactured by EG&G Princeton Applied Research Corporation.



Curve Catalog displays many "curve icons" in one window to give quick overview of spectral curve memories. You can cut and paste icons or drag them to the curve trash can. Double-click on an icon to plot it.

Below: Channel-profile graph (bars) shows a slice at constant wavelength along Z-axis (time) of 3D spectral curve plot.



For more information on Kestrel OMA III spectroscopy software contact:

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