



# Kestrel<sup>TM</sup> OMA III

Real-Time Diode-Array Spectroscopy Software



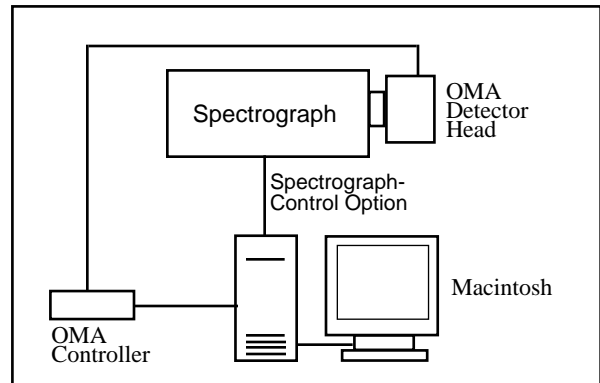
**Kestrel<sup>TM</sup> OMA III** software is designed for data acquisition and analysis in spectroscopy applications with models 1461 and 1471 OMA<sup>®</sup> controllers from EG&G Princeton Applied Research Corporation, and your Macintosh<sup>®</sup> computer.

## □ Data Acquisition

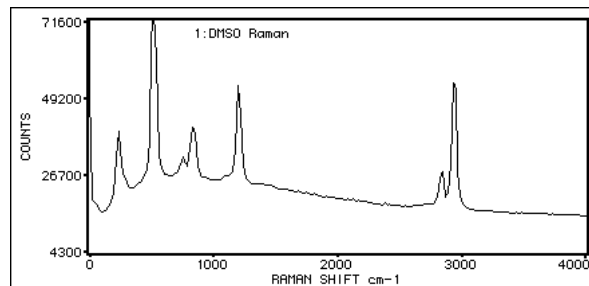
- Up to 30000 curves memories in RAM for spectral plotting and analysis.
- Sum multiple exposures into curve memories.
- Select from a variety of pre-programmed data acquisition modes in OMA controller.
- Use OMA controller's Data Acquisition Design programming language for customized processes.
- Automatic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

## □ Data Display

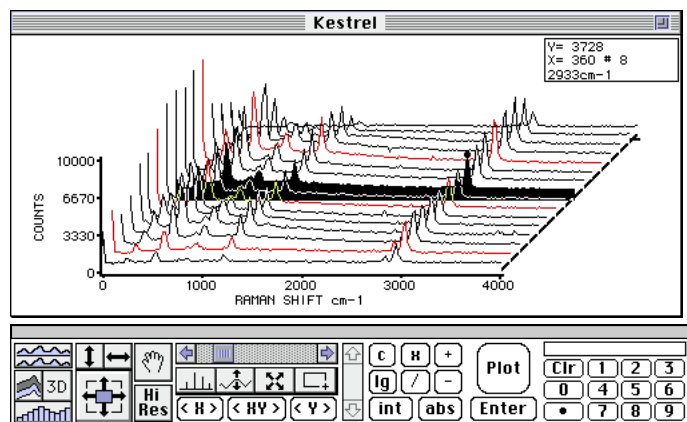
- 2-D and 3-D overlay curve plots.
- Channel profile Y(t)-type plot (Z axis slice).
- Line, bar and scatter plot styles with color fill.
- Drag plot handles to control 3D perspective, size.
- Graphic curve directory with "mini-curve" plots.
- Spectral calibration using spline fits, or accurate "one-point" *KestrelCal<sup>TM</sup>* 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.



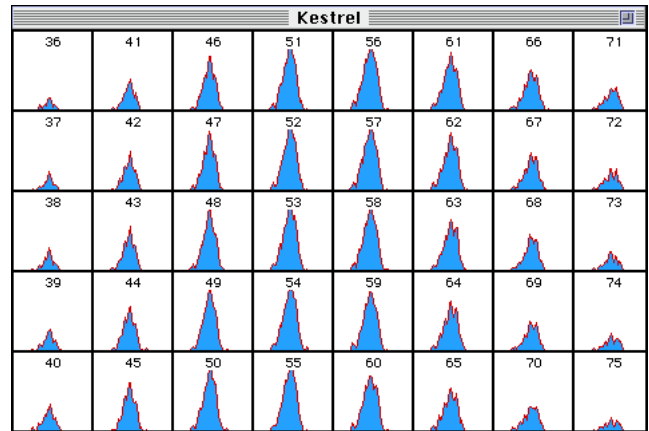
Kestrel has versatile graphing and data-analysis options. Control Palette (bottom) yields quick access to numeric keypad and other tools.

## ❑ 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.

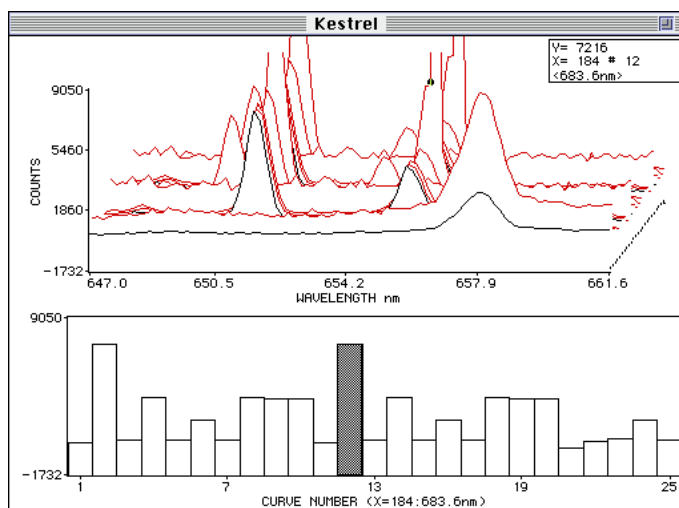
## ❑ Compatibility

- 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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