



The GL Gem Raman™ PL532 TEC

The GL Gem Raman PL532 TEC quickly can tell the difference between diamond and its simulants, detect the nature and possible treatments of gems, distinguish natural from polymer treated jadeite and nephrite, separate real from faux pearls, tell whether it is ivory or plastic; it works great on beads, carvings, gem materials set in jewellery and rough minerals (no preparation necessary).

The regular price for the OEM unit FOB Vancouver, Canada is under \$ 10,000 US\$ (for delivery allow 3 - 4 weeks); Commercial Invoice, B13A Export Declaration, labeling for class 3B laser and safety features which will satisfy FDA requirements.

The purchase price includes the GLGemRaman software and support materials on CD /USB stick with single user license. The purchaser is responsible for importing the unit, payment of duties, taxes and brokerage fees.

For further information contact:

Gemlab Research & Technology

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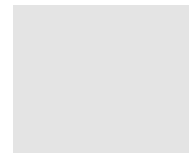


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TO:



GL Gem Raman PL532 PL Spectrometer 530 – 750 nm

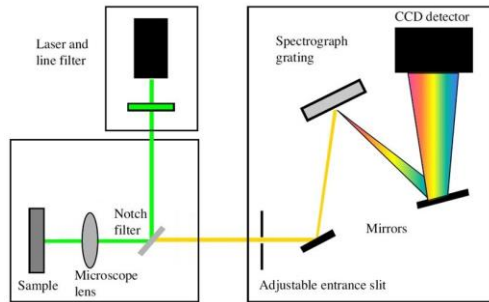
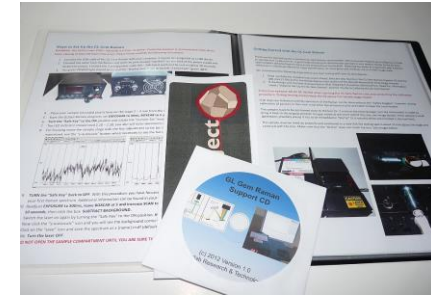
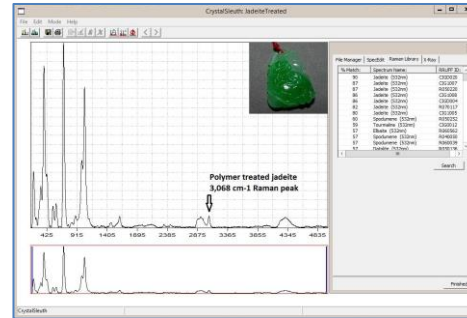
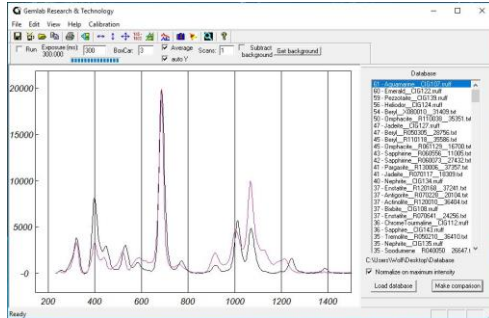
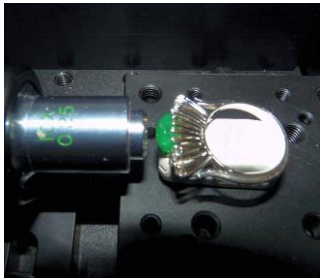
The GL Gem Raman™ PL532 TEC is an advanced dual purpose gem and mineral testing instrument for experienced jewellery appraisers, gem dealers, mineral collectors, researchers in geoscience applications and gem laboratory personnel.

The GL Gem Raman™ PL532 TEC is an ideal addition to the GL Gem Spectrometer™ which has over 300 users world-wide. It can quickly identify over 3,500 minerals (rough and polished samples); the operation of the Raman unit is easy to learn.

With new GL Gem Raman Band Pass Filter



The GL Gem Raman™ PL532 TEC can save considerable time in difficult gem and mineral identification



The GLGemRaman software allows real-time spectral acquisition for both Raman and photoluminescence (PL). Integrated fast search spectral library (over 300 gem references, no internet connection required) and a mineral related extended database (over 3,500 references linked to the on-line RRUFF project) is provided on the CD/USB stick.

The GL Gem Raman™ PL532 system is an economical solution for non-destructive gemstone and mineral identification. It can be used on rough surfaces and faceted gems - even set in jewellery; for scientific work the TEC option is recommended.

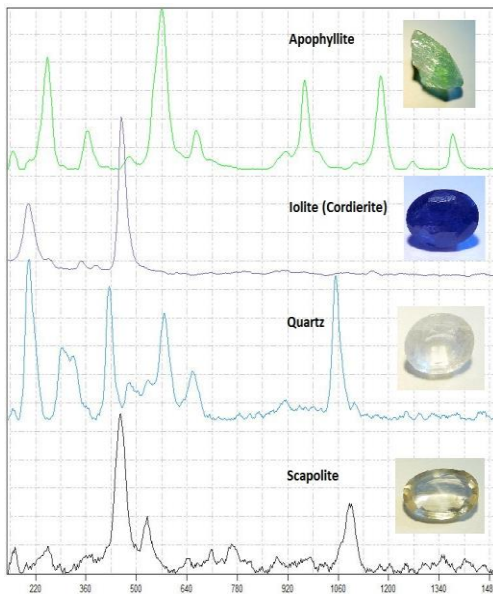
NOW with Optical GL Gem Raman Band Pass Filter (GLBPF) for suppression of fluorescence in Raman mode.

Specifications

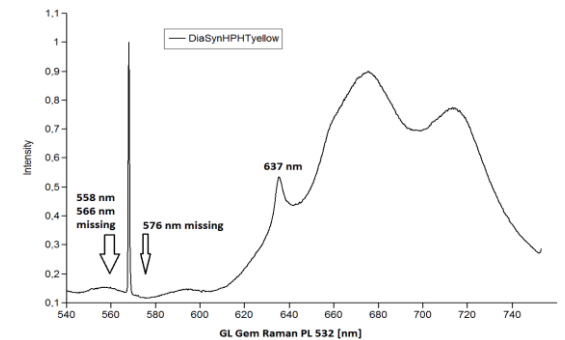
Range: 100 – 5,440 cm⁻¹ at ~ 10 cm⁻¹ FWHM resolution
 PL Option: 530 - 750 nm (broad scan) is included for experimental studies (please note that this **IS NOT** a fluorescence spectrometer)
OneFocus Optical System, Spot size: 10 – 15 micron at 10x lens
 Spectrometer: 3648 pixel Toshiba TCD1304DG; TEC included
 Laser: fan-less, confocal, 532nm regulated 300mW, Class 3B
 Fully secured system (laser lock), with sampling stage (90 x 90 x 50 mm), horizontal adjustment with micrometer screw
GL Gem Raman Band Pass Filter (GLBPF) with holder
 Size: 33 x 33 x 7.6 cm (13 x 13 x 3") – Weight: 8 kg (18 lbs)
 Operational system: Windows XP/Vista/7, 8, 10 and 32/64 bit
 Power supply: 110 – 240 Volts (for laser), 12 V DC for TE cooling unit and USB connection to computer.

Support Material

The package comes with a support CD (including video) for proper operation of the GL Gem Raman™ PL532; an experienced gemmologist should be able to follow and execute the step-by-step instructions including the optimization procedure if necessary. **Testing procedures can be done without safety goggles; however, the user will assume complete liability as to any consequences if the unit is not operated in compliance with instructions provided.**



Gemstones with overlapping Refractive Index



Characterization of HPHT treated synthetic diamond