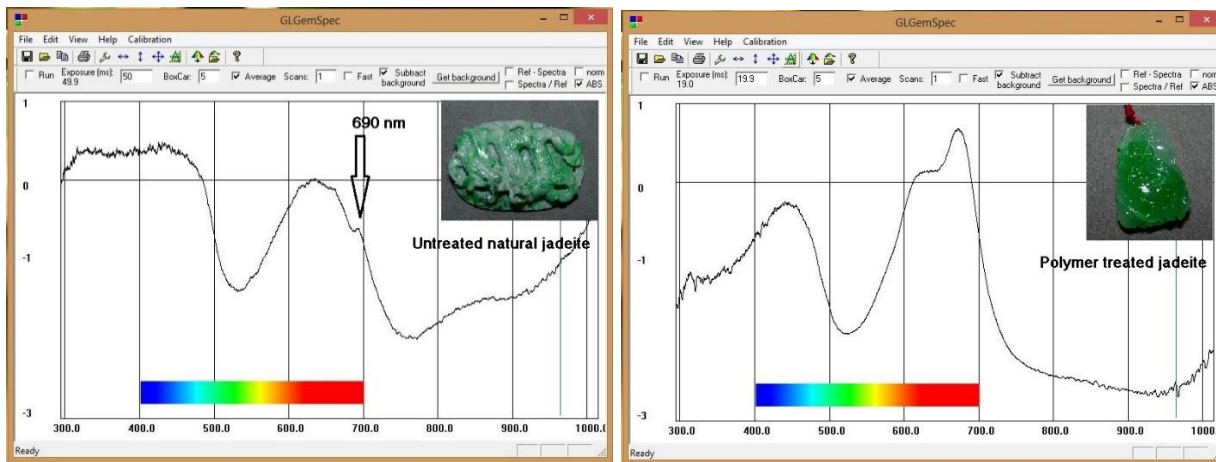
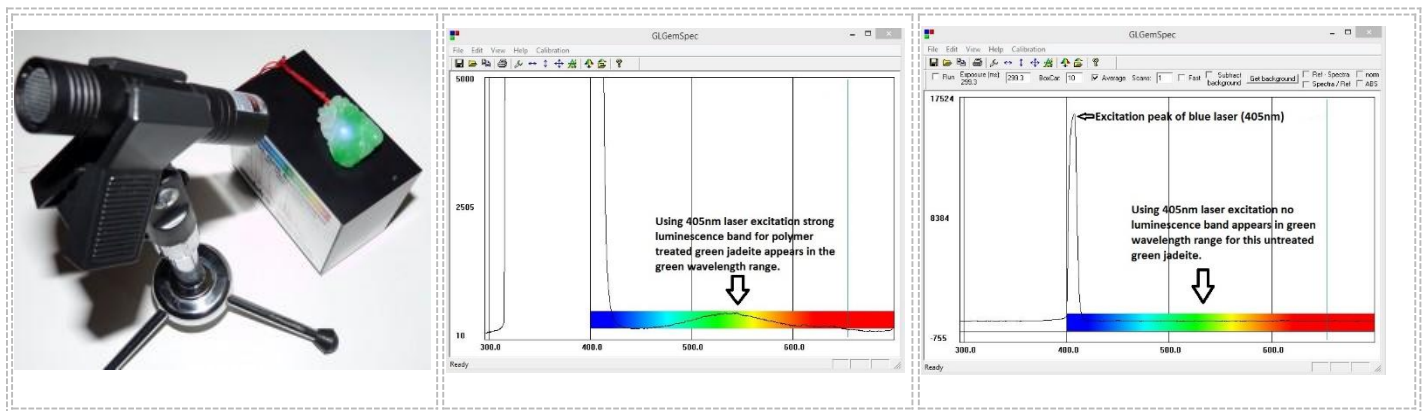


Identification of Jadeite Treatments with the GL Gem Spectrometer and GL Gem Raman PL532

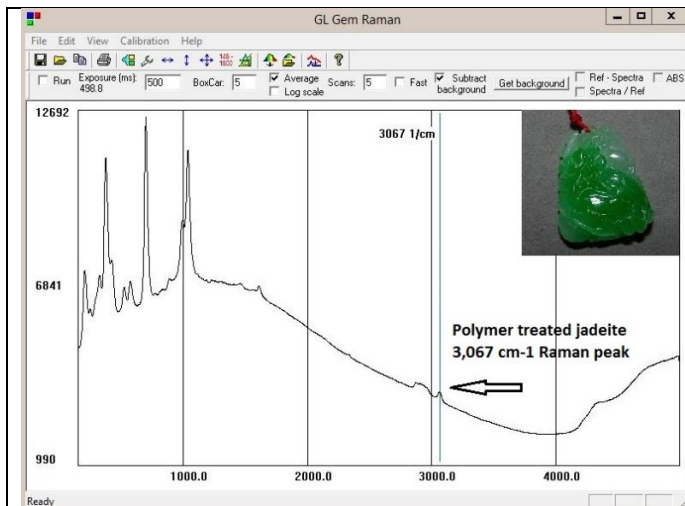
For testing with the GLGemSpec first take a sample spectrum of the halogen light, then remove the light holder and with some “Blu-tack” adhesive place the sample onto the entrance port, illuminate it with the GL Xenon Flashlight and watch the spectral graph. If you see the 690 nm peak the jadeite is naturally coloured; if the 690nm peak is missing the jadeite is either dyed or treated. The Chelsea filter reaction may indicate presence of dye.



The GL Gem Spectrometer™ is very efficient in detecting whether green jadeite has been treated or not.



With a blue laser (405 nm) excitation source (GL Analyzer PL405 Kit recommended) a strong luminescence band appears in the green wavelength range of polymer treated jadeite which is absent in untreated green jadeite. For your own protection always use laser safety goggles when operating any type of laser equipment.



The GL Gem Raman PL532 can also be used to quickly confirm polymer impregnated jadeite.

Be aware that new mineral based fillers are being used for impregnation; more research is necessary.

Please use additional test to confirm any treatments.