

OSA: Measurement of Green Laser for Material Processing

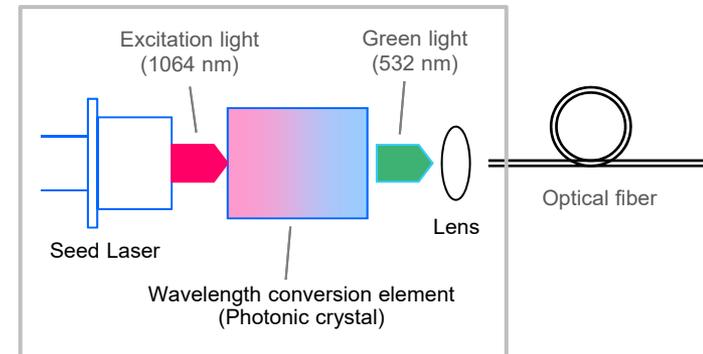
Applicable model*: AQ6373/AQ6374

Green lasers are lasers that emit light with a wavelength of 532 nm (green) and are used for material processing and marking. The wavelength of the green laser enables the spot size to be reduced, enabling fine processing. In addition, since green laser has a wavelength at which the light absorption rate of metals such as gold, copper, nickel, and iron is high, the irradiation power during processing can be suppressed and damage to the target object can be reduced.

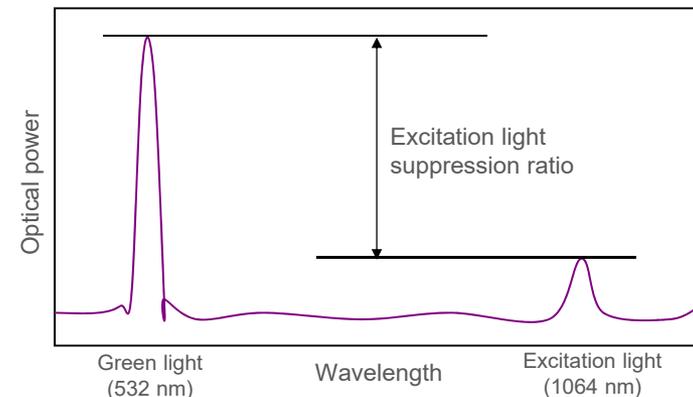
A green laser generates half the wavelength (532 nm) from the excitation light of a semiconductor laser or fiber laser having a wavelength or 1064 nm using a wavelength conversion element such as SHG (Second harmonic generation). By this principle, the output light contains some excitation light. However, since the green laser used for precision processing requires singularity of wavelength, the excitation light component must be sufficiently suppressed, which is evaluated as the pumping light suppression ratio.

The applicable models can simultaneously measure 532 nm and 1064 nm with high resolution and a wide dynamic range, so it is easy to perform accurate measurement of the excitation light suppression ratio of the green laser. It is useful for evaluation of light sources in the development department of laser marking equipment and laser processing equipment manufacturers, the acceptance inspection department of parts, or the development and manufacturing divisions of laser manufacturers that deliver to equipment manufacturers.

Diode Pumped Solid State Laser (DPSSL)



Optical Spectrum of Diode Pumped Solid State Laser (DPSSL)



* All versions unless otherwise specified.