

Contribution ID: 104 Type: Oral

Feasibility study of a dual wavelength laser cleaner

Wednesday 24 May 2017 17:20 (15 minutes)

A dual wavelength laser system providing emissions of 1064 nm and 532 nm was developed for cleaning applications. In this study, cleaning of surface layers of paints with the dual wavelength laser system was demonstrated. The experiments combined with an on-line monitoring technique were carried out to investigate the removal various paint types and thicknesses. The results reveal that the laser system was able to control the depth of material removed. The cleaning efficiency was evaluated with varied conditions. With several advances, the dual wavelength laser cleaner operating in infrared and visible region will become an establish tool in non-contact cleaning applications.

Keywords: Laser cleaning, Dual wavelength laser, Paint removal

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Session Classification: A3: Optics and Photonics

Track Classification: Optics, Non-linear optics, Laser Physics, Ultrafast Phenomena