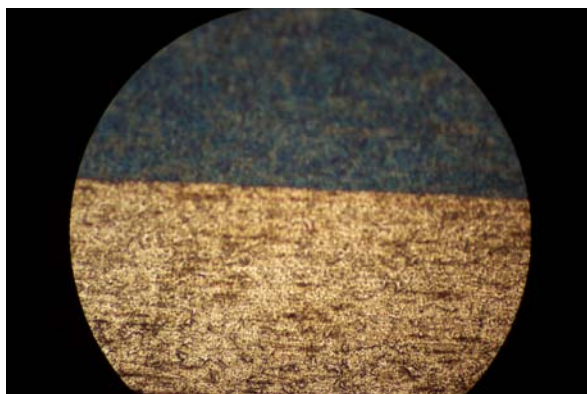


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## 355 nm DPSS LASER PHOTO ABLATION OF ORGANICS AND OXIDE FROM METALS AND COMPOSITES

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Many semiconductor and industrial applications require precise removal of oxides or organic contaminants prior to processing the materials. The removal of the oxide layer can facilitate subsequent processing steps or enhance electrical connections. In addition, many of these materials can be damaged by excess heat from IR lasers or physical contact from non-laser based cleaning methods.



The use of a DPSS 355 nm laser allows for controlled photo ablation of contaminants a few microns at a time from the surface of the material.

Using the Model 3510-30, the oxide layer was selectively removed from Titanium in the top picture. The 30  $\mu\text{m}$ , 355 nm beam was scanned at 1000 mm per second, one pass over the material. An area of 2 mm x 180 mm was processed in 30 seconds with no thermal or physical damage to the underlying material.

Laser Model	Average Power	Rep Rate	Scan Rate
3510-30	1 Watt @ 355 nm	30kHz	1000 mm /sec