

Detection of patterns latent fingerprint on the porous surface by frequency doubled Nd: Yag Laser and Dacty Loscopy method

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Abstrak

ABSTRACT

The frequency doubled Rd: YAG laser (532 nm/10ns, 15mj/pulse) uses a pulsed, frequency doubled; which provides a monochromatic, energy source with extremely high peak power and to has capability to develop of latent fingerprint on various surface. In the porous surfaces, this laser to has superiority, the compared with the development another methods, like powder and chemical method in latent fingerprint development.

The high peak power of the laser causes Palmar sweat: contain a variety compounds, among them amino acids, oils, enzymes, vitamins and other chemicals with in the print to fluoresce. Some latent fingerprints will fluoresce in their natural state during exposure to this laser energy.

The natural state fluorescing prints make can be documented and recording by high-resolution TV cameras and monitor for maximum sensitivity. The next step, the compare latent fingerprints products with visible impression by comparable instruments, see patterns of the friction ridges and be found same amount of their galton detail.