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ACCEPTED MANUSCRIPT

Detection of Latent Fingerprint Hidden Beneath Adhesive Tape

by Optical Coherence Tomography

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Highlights

- Directly recovering the hidden fingerprint beneath adhesive tape by OCT
- *In-situ* and in a fast manner, eliminating the need to peel the tapes off
- Detecting latent fingerprints hidden between the tape and different substrates
- 3D and the *en face* images were presented to reveal the hidden fingerprints

Abstract:

Adhesive tape is one type of common item which can be encountered in criminal cases involving rape, murder, kidnapping and explosives. It is often the case that a suspect deposits latent fingerprints on the sticky side of adhesive tape material when tying up victims, manufacturing improvised explosive devices or packaging illegal goods. However, the adhesive tapes found at crime scenes are usually stuck together or attached to a certain substrate, and thus the latent fingerprints may be hidden beneath the tapes. Current methods to detect latent fingerprint hidden beneath adhesive tape need to peel it off first and then apply physical or chemical methods to develop the fingerprint, which undergo complicated procedures and would affect the original Download English Version:

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