ser detection of fingerprints — New light on an old subject

Recently, it was shown that fingerprints can be detected under laser light where normal detection methods fail. An NRC team has launched an investigation into the chemistry and physics of the new fingerprinting technique.

Poring over a suspicious piece of evidence illuminated by the surreal blue light of his trusty old argon laser, a Sherlock Holmes of the future exclaims: "There, there — a glowing fingerprint! The dusting-powder showed nothing, but the laser has once again nabbed a fiend."

Indeed, the laser might some day become a most useful tool in the scientific arsenal of the crimefighter, supplementing the messy and sometimes ineffective dusting-powder fingerprint identification methods.

The starting point of this discovery was the realization by members of the OPP (Ontario Provincial Police) and Xerox of Canada, in Toronto, Ontario, that under certain conditions, fingerprints show up vividly with laser light, where normal dusting methods fail to reveal them. The principle of the new method is simple enough: the blue light of an Argon-ion laser is directed at the suspected print which is then observed through filter goggles that transmit only yellow light. On absorbing the blue laser light, latent finger-

Under certain conditions, fingerprints show up vividly under laser light where normal detection methods fail. This phenomenon is being investigated by NRC scientist Dr. Paul Carey of the Division of Biological Sciences. Protected by safety goggles from the powerful light of an Argon-ion laser, Dr. Carey peers at a fingerprint pattern revealed by laser light.

Dans certaines conditions, la lumière d'un laser peut mettre bien en évidence des empreintes digitales impossibles à détecter par les méthodes habituelles. Le Dr Paul Carey, chercheur à la Division des sciences biologiques du CNRC, s'intéresse à ce phénomène. Protégé par des verres filtrants de la puissante lumière d'un laser à ions d'argon, le Dr Carey examine une empreinte digitale dévoilée par la lumière laser.

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