When latent fingerprints are located on material with multi-coloured backgrounds, standard treatments may not produce clear prints because of background interference.

Even standard fluorescent powders and stains may fail if the background itself fluoresces.

Treatment with the new anti-Stokes powders can overcome this problem. As these powders produce visible fluorescence when illuminated with invisible near infrared light, latent prints that have adsorbed the powder can be seen while the background, reflecting only infrared light remains invisible - rendering the latent prints clear of background interference.
A bench-mounted Class 1 laser viewing enclosure for the stimulation of infrared activated anti-Stokes fingerprint dusting powders, the Crime-lite ASV renders high contrast fingerprints with no background interference.

Anti-Stokes powders, also known as up-convertors, are a relatively new form of fingerprint powder that absorb invisible infrared radiation and re-emit the energy at visible wavelengths, a process that is the reverse of standard Stokes-shifted fluorescence.

Excellent results can be obtained with fingerprints on ‘busy’ multi-coloured backgrounds and on backgrounds which fluoresce at similar wavelengths to standard fingerprint treatments.

A light dusting of anti-Stokes powder is applied using a magnetic brush.
1. A fingerprint is located.
2. Under the illumination of twin 976nm lasers the fingerprint fluoresces brightly while the background pattern disappears.

CRIME-LITE ASV BENCH MOUNTED LASER VIEWER
ORDER CODE: QCL/ASV/BV
- Safety interlocked Class 1 laser viewing enclosure
- For use with anti-Stokes magnetic fingerprint powder
- Allows both visual and photographic examination
- 2 x 6 watt 976nm (+/- 5nm) lasers
- Laser illumination area 45x60mm approx.
- Laser blocking viewing/imaging window, 75x100mm
- 2x high power white LEDs for internal illumination
- Height adjustable examination stand
- Enclosure dimensions: 505 x 400 x 245mm
- Power: input 100-240v ac 50/60Hz, output 15V 3.6A

ANTI-STOKES FINGERPRINT POWDER & APPLICATOR
ORDER CODE: QCL/ASV/FP
- VISAS Magnetic Fingerprint Powder 433060, 50g
- Magnetic applicator B60000
- Squirrel hair brush for print clean up after powdering

For further information on the use of anti-Stokes powders please refer to the following paper published by the Centre for Forensic Science at Sydney University of Technology:

Fingerprint Detection on non-porous and semi-porous surfaces using NaYF4:Er,Yb up-convertor particles.