

# Instrument D-Tect

The ultimate  
detection device

*Reliable identification of  
natural or synthetic diamonds  
as well as common diamond simulants*

Technology based on :

- UV luminescence
- Photoluminescence spectroscopy
- Raman spectroscopy

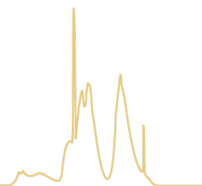
For mounted or loose diamonds (D to Z)  
of all shapes and size

User friendly

Semi-automatic detection software  
for an efficient process

Non-destructive method

Practical and scientific training  
by Dr T. Hainschwang



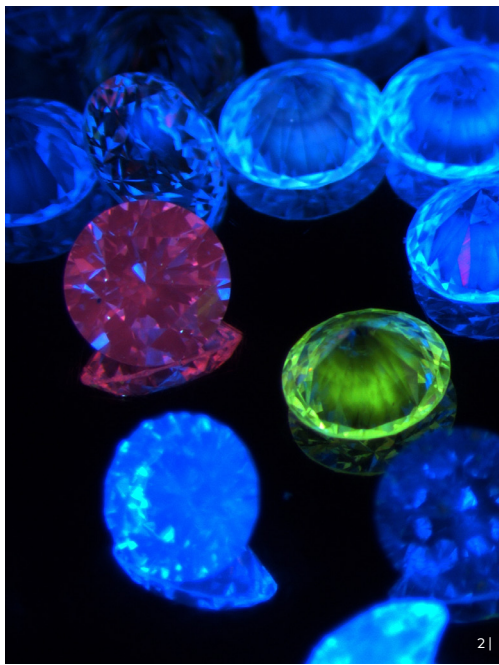
## About the D-Tect

Synthetic (laboratory grown) melee diamonds are getting increasingly present in the market and can often be found polluting parcels. As a way to help the trade in identifying and sorting their goods, GGTL Laboratories has designed and developed (initially for HRD Antwerp) the D-Tect to precisely determine the nature of any diamonds or simulants.

The D-Tect is dedicated to the identification of colourless “D to Z” diamonds. It was custom made to complete the automated pre-sorting of the M-Screen™ (a reliable and efficient melee diamond screening machine).

Being a semi-automated device whose technology is based on UV luminescence imaging and laser photoluminescence spectroscopy, both loose and mounted stones can be tested. For an easy and proficient sorting, the software will assist and guide you as it indicates any suspicious stones while you screen. As the D-Tect can perform Raman scattering spectroscopy fitted for the identification of any simulants or synthetics, it will determine without a doubt the nature of your stone.

Thanks to this system you will be able to process rejected lots from any pre-sorting automated machine, leaving your diamond melee parcel free of any synthetics and simulants.



1: Numerical 3 dimensional rendering of the D-Tect; 2: Colourless melee diamonds under UV excitation, exhibiting different luminescences and being screened for synthetic discrimination, photo Dr T. Hainschwang@.

## Melee detection service

Should you want to benefit from the D-Tect’s technology without buying a system for yourself, GGTL Laboratories Switzerland offers a detection service. With advanced equipment and experienced gemmologists, your parcel will be separated in three groups: natural diamonds, synthetic diamonds and simulants, should any be present.

A gemmological report will be issued mentioning authenticity so you know the true nature of your goods.

## Interested by this instrument?

Please contact us!

+41 (0)22 731 58 80  
switzerland@ggtl-lab.org  
www.ggtl-lab.org