

Forensic Applications of Handheld RamTest™ Identifier



INTRODUCTION

BioTools, Inc. (Jupiter, FL) has recently introduced the **RamTest-CSI™** handheld Raman identifier well suited for forensic, CSI, homeland security, and other field applications. Unmatched field performance of this easy-to-use, light-weight unit is achieved by utilizing a small-size, state-of-the-art 532 nm excitation source combined with breakthrough engineering design and advanced analytical methodology. As a result, **RamTest-CSI™** instrument is capable of **5-10x faster analysis / ID** of chemicals compared to the other handheld Raman instruments currently available on the market.

APPLICATIONS

Due to unmatched sensitivity to chemical structure / composition; as well as non-contact, non-invasive and non-distractive nature of Raman measurements; **RamTest-CSI™** identifier has an extremely broad applicability scope. This instrument is capable of rapid and reliable 'in-place' analysis of the wide range of different materials / forms:

- ✓ *Inorganic, organic, biological materials*
- ✓ *Solids: powders, tablets, chips, crystals*
- ✓ *Liquids*
- ✓ *Mixed solids and liquids*

Due to a unique excitation wavelength for handheld Raman, **RamTest-CSI™** can ID substances of interest / concern both 'as is' and through glass or plastic containers eliminating any need for additional sample handling, preparation or touching the chemicals. **Figure 1** shows a few examples of glass and plastic containers suitable for non-invasive ID of substances inside them:

- ✓ *Transparent glass and plastic*
- ✓ *Colored glass and plastic*
- ✓ *Evidence bags*
- ✓ *Blister packs*

Forensic / CSI applications of **RamTest-CSI™** include but not limited to detection / analysis / identification of the following substances:

- ✓ *Illegal drugs*
- ✓ *Counterfeit medicine*
- ✓ *Explosives (liquid and solid)*
- ✓ *Counterfeit beverages / alcohol products*
- ✓ *Counterfeit jewelry / gem products*
- ✓ *Clandestine material precursors*
- ✓ *Typical 'camouflaging' compounds*
- ✓ *Biologics, fibers, paint chips, inks*



Figure 1: *RamTest-CSI™* IDs Substances through Shown Containers: Plastic / Glass Vials or Bottles, Evidence Bags or Blister Packs