

Optical Tracer Identification



Mass-produced fluids can not carry their brand like solid products or those filled into small bottles or cans. They are usually stored and transported in huge universal tanks and they are essentially similar to the competitor's product or to illegal imports from uncertified manufacturers. The brand owners and the authorities lose a lot of money every day worldwide.

The given task

In order to protect the national gasoline market against illegal imports or mixing of the original gas with illegally produced gas, a complete solution for branding and identifying of the gasoline needs to be developed. m-u-t has developed a solution, that is easy to handle and as a mobile testing unit it fits into the luggage compartment of a car. Adulteration as well as counterfeiting can be detected.

The solution

GTA – Gas Tag Analyzer

Portable unit to quantify very small amounts of chemical tracer in liquids.

The Gas Tag Analyzer (GTA) system is based on a tracer liquid that is added to the gasoline in very low concentrations. This tracer has a very typical spectral signature and is virtually impossible to copy. The mobile GTA unit is not only able to identify the tracer but also to measure the tracer's concentration in the fluid. Therefore counterfeit products and adulterations can be identified by measuring and determining the low tracer concentrations.

The GTA mobile unit is a complete spectrometer system equipped with multiple laser sources, a battery pack and interactive software. It is designed for 4 hours of mobile operation. The result is displayed immediately. The system gives you the information whether the analysis showed a counterfeit, an adulterated product or an original. If the product was adulterated, the amount of adulteration is given directly on the display. That enables the operator without any chemical knowledge to obtain trustworthy results. The testing can be done directly on the street or at the gas station.

Initially developed for gasoline / diesel applications, the GTA can be adapted to other products as well:

- Spirits
- Pharmaceuticals
- Industry & consumer goods
- Agrochemical industry

As long as adding a tracer to the product is possible, we can support you with the safest and fastest authenticity control system possible. Do not hesitate to contact us with your idea about authenticity control.

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