

QUALITY POLICY ISO 9001:2000

Industrial Analytical (Pty) Ltd recognizes that the disciplines of quality, health, safety and environmental management are an integral part of its management function. The Organization views these as a primary responsibility and to be the key to good business in adopting appropriate Quality standards.

The Organization Quality policy calls for continuous improvement in its Quality management activities and business will be conducted according to the following principals:

We will: -

- Comply with all applicable laws & regulations.
- Follow a concept of continuous improvement and make best use of its management resources in all Quality matters.
- Communicate its Quality objectives and its performance against these objectives throughout the Organization and to interested parties.
- Take due care to ensure that activities are safe for employees, associates and others who come into contact with our work.
- Work closely with our customers and suppliers to establish the highest Quality standards.
- Adopt a forwardlooking view on future business decisions which may have Quality impacts.
- Train our staff in the needs and responsibilities of Quality management.

CLAISSE® Fusion Instruments & Fluxing Chemicals for...

X-Ray Fluorescence Analysis

Techniques of fusing silicates, oxides and even metallic materials to bring them into solution have become very popular for X-Ray fluorescence analysis. Fused beads (discs) have the advantage of presenting the sample in a very homogeneous form and results are more precise and generally require less correction than other methods such as pressed powder techniques. The beads are very stable and calibration standards may be kept for long periods.

Up to recently fusions were carried out manually. This involves heating the crucible containing the mixed sample + flux in a flame, judging the temperature, swirling the melt and then pouring the melt into a suitable hot mould to cast the disc. Alternately, a muffle or induction furnace may be used for this heating process. The procedures require skill and experience and discs are not always uniform, being operator dependent (operators, as humans, DO sometimes make mistakes, don't they?) Also there is a safety factor involved with handling molten salts at temperatures around 1000 degrees C.

The Canadian company CLAISSSE has for many years been in the forefront of producing, not only extremely high

quality lithium tetra- and metaborate fusion salts, but also fluxing instruments that automate to a large extent the tricky procedures of, making analytical glass beads.

ICP Analysis

Fusion of the same types of samples for ICP analysis is perhaps less well known, but rapidly gaining in popularity. Fusion enables silicates (rocks, minerals, and ores etc.) to be dissolved far more rapidly than is the case if wet chemical dissolutions are used, without the loss of material and/or contamination by reagents.

The procedures are similar to those used in the X-ray method in mixing the sample with the fluxing salt, but instead of casting a bead, the melt is either poured directly into an aqueous- acid solution or allowed to cool and the crucible transferred to the acid solution, where the sample dissolves rapidly.

CLAISSE fusion instruments allow lithium borate fusions and peroxide fusions (for the dissolution of Ferro-metals), to be done fully automatically or semi-automatically. They make use of hassel-free flame burners and are microprocessor controlled to enable all parameters, such as flame temperature, shaking speed and times to be preset. The latest model M-4 is computer controlled and gives a remarkable degree of control by presetting sample types, and all parameters, in a linked computer. This reduces, even more, the possibilities

of operator errors. The M-4 also has a swirling action and with the new patented crucible design, gives exceptionally clear and uniform beads.

Other interesting instruments, such as the automatic sample weighing and flux dosing instrument called the "ANT" is available.

Of great importance are the high quality fluxes offered. Pure lithium tetra and metaborate as crystalline, easy pouring salts, or mixtures of these in various proportions are available at short notice. They may include the wetting agents lithium bromide- or iodide. Mixtures can be custom made to customers' requirements. These and several other products are now offered by Industrial Analytical as the agent for Africa.

Reinou Olwaghen is the product specialist and Dr. Pat Butler is available for scientific and technical backup on any of the CLAISSSE products.

If you are interested in any of the CLAISSSE instruments and/or salts please phone

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**For Quotations or FREE Catalogues,
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