

# Sci-Lab

## ANALYTICAL

### **RAPID ANALYSIS FOR AUTOMOTIVE RESEARCH**

*ELTRA® TGA to characterize structural carbon fibre composite materials.*

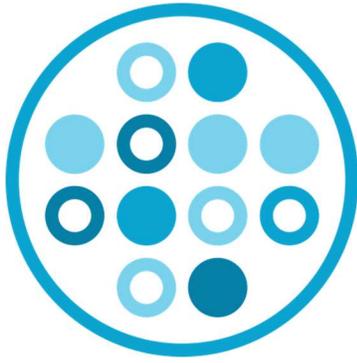
Sci-Lab Analytical is pleased to announce an exciting new **installation of the ELTRA TGA Thermostep in the UK**. As the exclusive distributor of ELTRA products in the UK, Sci-Lab helps companies select the analyser type and set up that best meets their analysis needs.

The Automotive Composites Research Centre (ACRC) at WMG, **The University of Warwick will be using the ELTRA TGA Thermostep to characterise structural carbon fibre composite materials** now used in cutting edge structural vehicle parts, as part of the ACRC's dedicated composite testing and characterization facilities.

WMG, The University of Warwick is an international leader in successful collaboration between academia and the private and public sectors, driving innovation in applied science, technology and engineering. Their Automotive Composites Research Centre (ACRC) houses state-of-the-art composite manufacturing equipment to enable research into process development and demonstration of all stages of the automated manufacturing process. The team, Dr Jaipal Gupta and Dr Venky Balakrishnan led by Professor Ken Kendal, saw the instrument in action in other facilities. They decided that the ELTRA TGA Thermostep would make an excellent addition to their laboratory's testing facilities.

ELTRA's TGA Thermostep is a thermo-gravimetric analyser which determines parameters such as moisture, volatile, and ash at user-specified temperatures and atmospheres in a single analysis. The TGA Thermostep simultaneously analyses up to 19 samples with sample weights up to 5 g and can be operated at temperatures up to 1000 °C. A particular feature of this instrument is the automated placement and removal of crucible covers during the analysis - without potentially dangerous manual handling. This feature was initially designed to meet ASTM fuel methods, allowing the precise determination of volatile content in coal and coke; more recently this has been put into action with modern materials such as carbon fibre, as it greatly reduces the potential for statically charged fibres leaving the crucible during analysis, whilst still allowing the rapid analysis of resin & fibre content.

The new ELTRA Thermostep TGA now stands ready to support the ACRC across their collaborative R&D projects; essential projects which support the UK supply chain by



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developing and demonstrating high-volume structural manufacturing processes for fibre reinforced polymer composites.



For more information about WGM, visit

<https://warwick.ac.uk/fac/sci/wmg/research/materials/hvacm/projects>

### **About Sci-Lab**

Based in Chester, Sci-Lab Analytical Ltd has been the exclusive ELTRA® dealer in the UK since 1993. Sci-Lab doesn't just sell analysers, they also service analysers and provide spares. Whether you have an ELTRA, LECO® or Horiba®, Sci-Lab has the consumables you need.