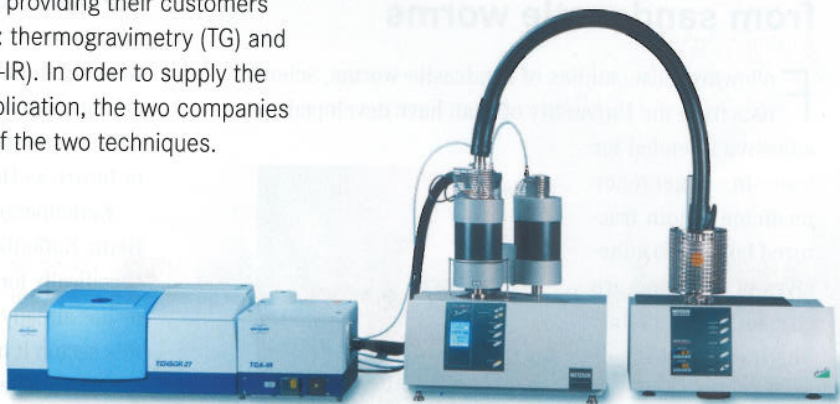


Studying macroscopic material properties at a molecular level

For 15 years, Netzsch and Bruker have been providing their customers with a combination of two analysis methods: thermogravimetry (TG) and Fourier-Transform infrared spectroscopy (FT-IR). In order to supply the best possible technical solution for each application, the two companies are continuing to develop the combination of the two techniques.

While thermogravimetry provides important information about the characteristics and thermal stability of materials, FT-IR spectroscopy is an established method of identifying substances and quantifying the components of samples. Therefore, the combination of the two techniques opens up unique opportunities for analysing macroscopic material properties at a molecular level.

Engineers from Netzsch and Bruker have worked closely together to develop the TG-FTIR coupling and have ensured that the two systems are combined in such a way as to provide the best possible performance and ease of use.



Using the combined system, additives can be identified and even quantified in the field of polymer manufacturing and processing, for example. In addition, the TG-FTIR coupling gives valuable insights into ageing and decomposition processes, in particular in interaction with different atmospheres. Other applications include identifying and quantifying solvent residues and investigating the stor-

age stability of solid formulations using only one TG-FTIR experiment. The system can be used in a wide range of other fields, because the combination of thermal and molecular-spectroscopic analysis allows the fundamental chemical and physical properties of a variety of materials to be identified. ■

For more information: www.netzsch-thermal-analysis.com, www.brukeroptics.com