

ARC 244



NETZSCH offers a full range of low- and high-temperature thermal analysis instruments for temperatures between -260 and 2800°C including all thermal analysis and thermophysical properties testing systems.

Since the beginning of 2009, NETZSCH offers special adiabatic calorimeters used in the field of accelerated rate calorimetry. These systems were formerly produced by TIAx in the United States.

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NETZSCH-Gerätebau GmbH, one of the world's leading thermal analysis manufacturer, introduces the ARC 244 – a small footprint adiabatic calorimeter system that offers improved performance, safety, usability, and flexibility with the same data integrity and robustness that the thermal analysis community has relied on for more than 25 years.

The ARC 244 is designed to safely measure the amount and rate of heat release associated with the processing or storage of chemicals. This information is vital in developing and evaluating processes to ensure safe operation and to prevent thermal runaway which can have devastating effects. The NETZSCH ARC technology is integral to designing inherently safer batteries as well as measuring energetic materials used in such products as explosives, propellants, and air bags.

The ARC 244 combines the same state-of-the-art electronics, software, and control hardware of our premier instruments (APTAC 264 and ARC 254) with the original calorimeter designed by Dow Chemical. The original ARC, ARC-WIN, and ARC-2000 systems available from Columbia Scientific Industries and Arthur D. Little use this same calorimeter design meaning that any new data collected will be comparable to historical data.

Operating modes of the ARC 244

- Heat-Wait Search™ – primary mode of operation
- Iso-Fixed™/Iso-Track™ – Iso-aging techniques for studying storage/conditions/auto-catalytic reactions
- Ramp mode – for screening unknown samples
- Scanning Mode – with Power Compensation Module
- Isothermal Mode – with Power Compensation Module

Major Features and Benefits of the ARC 244

- Tube heater—reduces heat losses due to reflux
- Windows XP™ operating system standard
- Smaller footprint
- Lift mechanism for calorimeter top
- Experimental wizards for easy test set-up
- Optional Power Compensation Module
- Increased safety and interlock features

When equipped with NETZSCH proprietary Power Compensation Technology, the ARC 244 allows the user to measure exotherms in a fast scanning mode with the same sensitivity as the Heat-Wait-Search Method and to measure endotherms and heat capacity directly.