AGH Research Offer

Differential scanning calorimeter SDT Q600 by TA INSTRUMENTS

Technical description:

Analyzer for DSC differential scanning calorimetry and TG thermogravimetry.

Trade name: Differential scanning calorimeter SDT Q600 by TA INSTRUMENTS

More details: /equipment/termograwimetr-sdt-q600-firmy-ta-instruments/

Access type: External

Type of accreditation / certificate: Not applicable

Contact person: Kmita Angelika

Contact person url: https://skos.agh.edu.pl/osoba/angelika-kmita-8131.html

Responsible body: Academic Centre for Materials and Nanotechnology

Group / laboratory / team: Department of Functional Materials and Nanomagnetism

Last update date: Nov. 28, 2024, 10:58 a.m.

Year of commissioning: 2013

IDUB research areas:

(PRA 1) Sustainable energy technologies, renewable sources of energy, energy storage, and resource management. Design, production, application, synergy, and process integration
(PRA 5) Materials, technologies, and processes inspired by nature: biotechnology, bioinspirations in engineering and materials science, biosensors, bioenergetics, biocatalysis, biocomputers, and biocomputation
(PRA 7) Design, production, and testing of modern materials and the technologies of the future based on a multidisciplinary approach combining materials engineering with chemistry, physics, mathematics, and medicine

Research capabilities:

The system allows simultaneous TG/DSC analysis. Study of sample weight changes and accompanying thermal effects occurring during dynamic heating/cooling of the sample and/or in isothermal conditions in a static, dynamic, neutral, oxidizing or reducing atmosphere. TG/DSC: 25-1500°C conditions: static, dynamic; atmosphere: inert, oxidizing, reducing. TG/DSC-MS enables qualitative and quantitative analysis of released gases.

Measurement capabilities:

WORK PARAMETERS

sample size up to 200 mg

working temperature up to 1500°C

heating rate from 0.1 to 100°C/min

sensitivity 0.1 µg

thermocouple: platinum/platinum-rhodium

DTA sensitivity 0.001°C

calorimetric accuracy ±2%

atmosphere: inert, reducing, oxidizing

Conditions for providing infrastructure:

The equipment is made available on the terms resulting from the Regulations for the Use of the Research Infrastructure of ACMiN. (https://acmin.agh.edu.pl/acmin/dokumenty/).