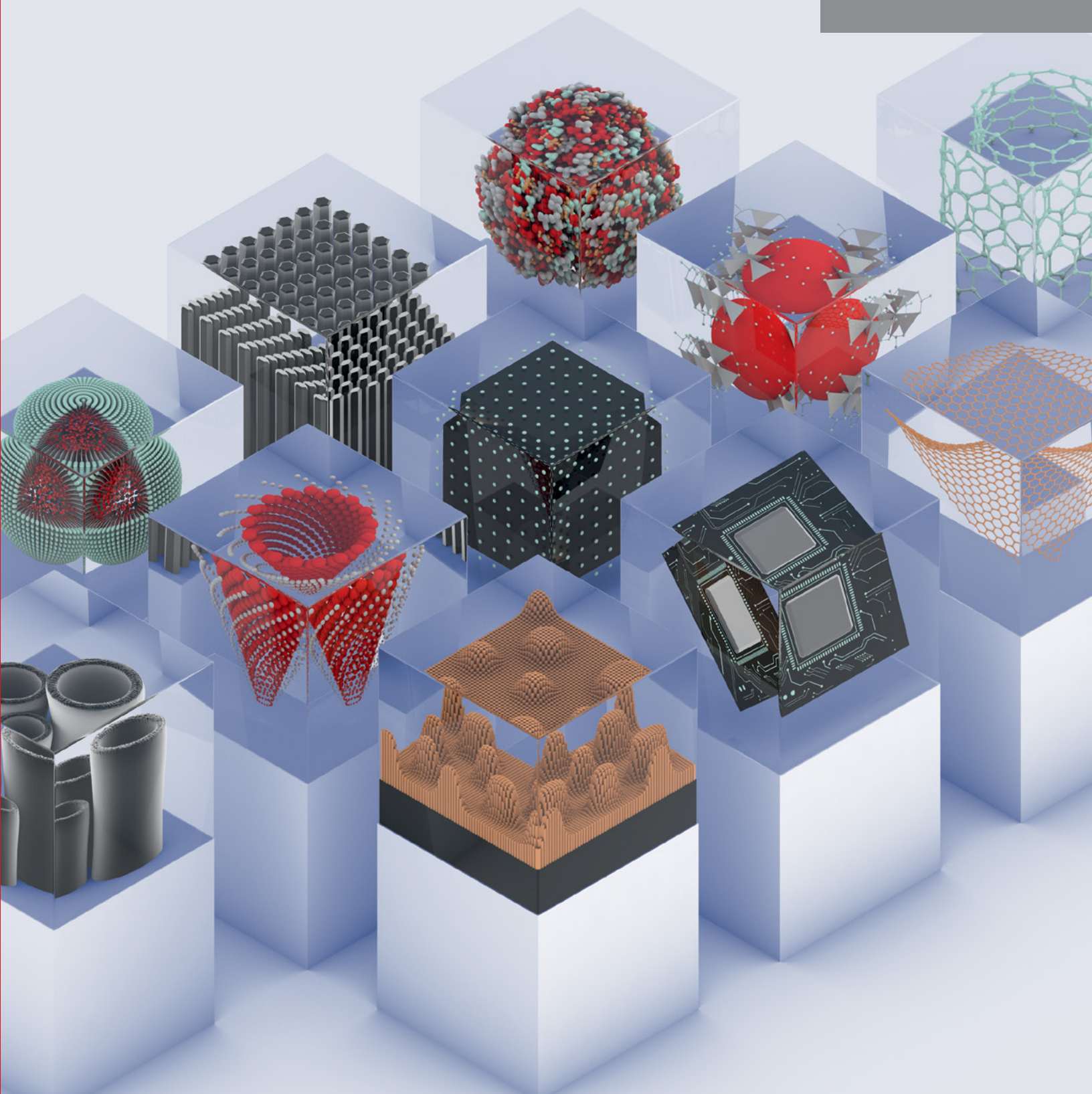
Anton Paar

Powering your curiosity

Nanomaterials

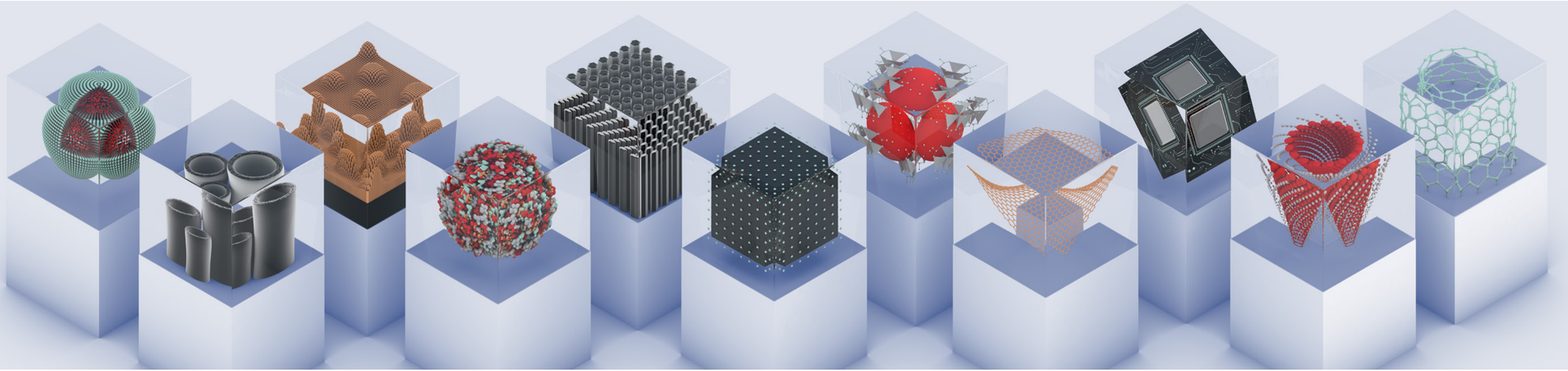


Anton Paar's portfolio for nanomaterials research

Embrace the future of research with the portfolio of Anton Paar – a manufacturer trusted by 96 of the world's top 100 universities.

FIND OUT MORE

www.anton-paar.com/nanomaterials



MICROWAVE REACTOR

Monowave

High-performance monomode microwave reactors designed for small- to medium-scale microwave synthesis, for improved productivity and product purity across all applications in your research and development laboratories.

ATOMIC FORCE MICROSCOPE

Tosca

Top-level AFM for entry-level budgets: With a super-fast measurement setup (only 3 min) and largest sample stage (100 mm fully addressable), the Tosca series will keep up with your AFM nano surface analysis.

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PARAMETERS: ROUGHNESS, HEIGHT PROFILE, 3D TOPOGRAPHY, CONTACT POTENTIAL DIFFERENCE DISTRIBUTION, ELECTRICAL CONDUCTIVITY MAPPING, MAGNETIC FORCE MICROSCOPY, MECHANICAL SAMPLE PROPERTIES

LABORATORY SAXS SYSTEM

SAXSpoint 5.0 and SAXSpace

SAXSpoint 5.0 is the ultimate SAXS/WAXS/GISAXS/RheoSAXS laboratory beamline with synchrotron detector technology for the highest resolution in a compact system, resolving your nanostructures up to 620 nm. SAXSpace is a compact lab-scale system for SAXS and WAXS studies with a brilliant block collimation system ensuring an intense X-ray beam for very short measurement times.

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PARAMETERS: CORRELATION LENGTH, SPACE GROUP, PARTICLE SHAPE, PARTICLE SIZE AND SIZE DISTRIBUTION, RELATIVE ROUGHNESS

PARTICLE SIZE ANALYZER

Litesizer and PSA

Two instrument types to characterize your particles: The Litesizer series employs dynamic light-scattering technology to determine not only particle size, but also zeta potential, and other parameters in liquid dispersions. The PSA series uses laser diffraction technology to measure the size of particles in both liquid dispersions and dry powders.

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PARAMETERS: PARTICLE SIZE, ZETA POTENTIAL, TRANSMITTANCE, MOLECULAR MASS, REFRACTIVE INDEX

ELECTROKINETIC ANALYZER

SurPASS 3

Fully automated zeta potential analysis of macroscopic solids under real-life conditions. The zeta potential is related to the surface charge at a solid/liquid interface and is your key parameter for understanding surface properties and developing new specialized materials.

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PARAMATERS: SURFACE CHARGE, ZETA POTENTIAL

ROTATIONAL AND OSCILLATORY RHEOMETER

MCR Evolution

The MCR Evolution series is the most widely used rheometer brand worldwide, with 10,000+ installations. It can be equipped with 200+ accessories which provide you with endless possibilities for rheological investigations and material characterization.

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PARAMETERS: VISCOSITY, FLOW AND DEFORMATION BEHAVIOR, VISCOELASTIC PROPERTIES, AND STRUCTURE RECOVERY

ROTATIONAL RHEOMETER

RheolabQC

RheolabQC is a cost-effective rotational rheometer based on state-of-the-art technologies for carrying out routine rheological tests.

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PARAMETERS: VISCOSITY (FLOW/VISCOSITY CURVE, YIELD POINT)

VISCOMETER

ViscoQC and Lovis

ViscoQC are rotational viscometers to ensure the quality of your substance – from liquid to semi-solid dispersions, and suspensions. Lovis 2000 M/ME is a rolling-ball viscometer that measures the rolling time of a ball through transparent and opaque liquids based on Hoeppler's falling ball principle which is used for viscosity measurements of low-viscosity liquids for R&D applications.

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PARAMETER VISCOQC AND LOVIS: DYNAMIC VISCOSITY PARAMATERS LOVIS: INTRINSIC VISCOSITY, MOLAR MASS OF A POLYMER

GAS PYCNOMETER

Ultrapyc

Ultrapyc gas pycnometers measure the true and skeletal density of solids to track their purity and porosity. Ultrapycs from Anton Paar combine decades of knowledge with groundbreaking innovations to be the most user-friendly gas pycnometers anywhere.

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PARAMETERS: TRUE DENSITY, SKELETAL DENSITY

MICROPORE PHYSISORPTION AND CHEMISORPTION ANALYZERS

autosorb iQ

These high-sensitivity gas sorption analyzers use proprietary small cold-zone technology for detailed micropore size distributions of up to 3 samples simultaneously. They perform the most challenging measurements for novel materials research in environmental and industrial applications.

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PARAMETERS: PORE SIZE, SURFACE AREA

CAPILLARY FLOW POROMETERS FOR THROUGH-PORES

Porometer 3G

Porometer 3G instruments conduct accurate and repeatable through-pore size measurements within 30 minutes for any sample.

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PARAMETER: PORE SIZE

THERMO-OPTICAL OSCILLATING REFRACTION CHARACTERIZER

TORC 5000

The thermo-optical Oscillating Refraction Characterization (TORC) technique enables determination of the coefficient of thermal expansion and monitoring of phase and glass transitions by time- and temperature-dependent measurements.

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PARAMETER: COEFFICIENT OF THERMAL EXPANSION, REFRACTIVE INDEX

DIGITAL REFRACTOMETER

Abbemat

Abbemat refractometers allow fast and non-destructive refractive index and nanoparticle concentration measurements. Independent of sample properties, you can measure liquids, pastes, polymers, solids, as well as turbid, colored, or opaque samples.

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PARAMETERS: REFRACTIVE INDEX, CONCENTRATION

DENSITY AND SOUND VELOCITY METER

DSA 5000 M

DSA 5000 M measures the whole concentration range of sulfuric acid and oleum, and determines the concentration of two- and three-component solutions, which makes it the only instrument that combines density and sound velocity measurements in one setup.

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PARAMETER: CONCENTRATION

DIGITAL DENSITY METER

DMA 5001

The DMA 5001 digital density meter offers unmatched 6-digit accuracy and provides a precise measurement mode on top for measurements requiring the utmost precision. It is ideal for demanding high-end R&D applications and sets the tone at authorities as well as standards organizations.

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PARAMETERS: DENSITY, CONCENTRATION, SPECIFIC GRAVITY

Powering
your curiosity

Our unique and flexible instrument portfolio for nanomaterials research and characterization offers forward-looking solutions for your lab. Innovation drives continuous updates to our instruments, so an instrument bought today offers countless possibilities tomorrow.

TO FIND OUT MORE ABOUT WHY OUR INSTRUMENT PORTFOLIO IS SO USEFUL TO NANOMATERIALS RESEARCH, VISIT

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