



Service Center



Microbiology

Analytics

Microstructures

Omya Microbiology

State-of-the-art Services in Molecular Microbiology Analysis services and Research Projects

We offer service and project support for customers around the world. Omya Microbiology is the microbiology service division of Omya International AG which provides a state-of-the-art project support for the industrial sector.



Key to our success is the interdisciplinary teamwork in the fields of chemistry, microbiology, molecular biology and nanotechnology – all networked to provide one source for research and development projects. All equipment and systems are state-of-the-art at a single location making Omya Microbiology a fast, precise, flexible and cost-effective solution.

Our focuses are services in microbiology, molecular biology and antimicrobials for customers from Agriculture, Preservation & Disinfection, Paints & Coatings, Cosmetics & Pharma, Food & Beverages, and Water & Environment.

- Microbial identification
- Development of antimicrobial strategies
- Contract Research Projects
- Metagenomics
- Work with pathogens in BSL2 lab
- Assay development
- Analysis services
- Microbial quantification
- Establishment of biocide concepts
- Toxicology studies
- Next generation Sequencing projects
- Teaching & Consulting
- Compliance assessment (FDA, BfR, REACH, BPD, Pharmacopoeia, etc.)
- ISO 9001 certified management system



Find more detailed information:
www.omya-microbiology.com

Ask for a quotation:
info.microbiology@omya.com

Analytical and Microstructural Laboratories

The Analytical and Microstructural Group of Omya Development AG is a technical and scientific service center. We conduct research and technical support in the field of materials science focusing on industrial minerals and their applications.



Thanks to our equipment, we are able to perform a full range of studies to evaluate the properties and performance of materials. Our laboratories are equipped with various instruments and devices suitable for physicochemical, optical, and microstructural characterization of organic and inorganic substances.

Located in the heart of Switzerland, we offer our scientific and technical skills to public and private customers. If you are interested in any of our services or want to know more about our facilities, please contact us at: service.ch@omya.com.

Analytical Laboratory

The Analytical Laboratory is home to an extensive array of instrumentation and professional staff with years of industry knowledge and expertise. We provide the laboratory support you need to help run your business and meet product research, development, and quality goals.

Laboratory techniques include chemical, elemental, and trace metal analysis of a wide range of materials for identification and quantification of chemicals, elements, and molecules.



Available facilities:

- Infra-red spectroscopy (FTIR)
- X-ray fluorescence spectroscopy (XRF)
- Inductively coupled plasma-mass spectrometry (ICP-MS)
- Optical atomic emission spectroscopy (ICP-OES)
- Flow injection mercury system (FIMS)
- Gas chromatography (GC-FID, GC-MS, HS/TD-GC-MS)
- Liquid chromatography (HPLC, UPLC-MS/MS)
- Ion chromatography (IC)

Microscopy Laboratory

The Microscopy Laboratory is a facility created in order to offer our customers a collection of state-of-the-art light-microscopy equipment as well as resources for studying micro- and nanomaterials using dedicated electron beams. Our strength is a pronounced competence in sample preparation of both, man-made and natural materials, for microscopic characterization.

Our service includes:

- Stereo microscopy for examining transparent or opaque samples at low magnifications (7-115x)
- Light-microscopy for investigating surfaces and cross-sections at higher magnifications (50-1000x)
- Confocal laser scanning microscopy (CLSM) for obtaining high-resolution optical images with depth selectivity, allowing 3D reconstructions of topologically complex objects (50-1000x)
- A scanning electron microscope (SEM) equipped with an SE-, BSE-, and EDS-detector providing high-resolution imaging and full chemical analysis (20-40000x)
- Image analysis for extracting meaningful information from digital images

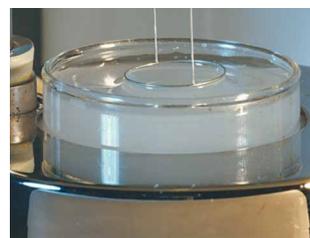


Rheology and Polymer Laboratory

The Rheology and Polymer Laboratory offers full service for characterizing flow properties of complex liquids, especially suspensions, but also gels and liquids with polymeric components. Understanding and controlling the rheological properties is essential for numerous products and applications. We can help you to further optimize your products.

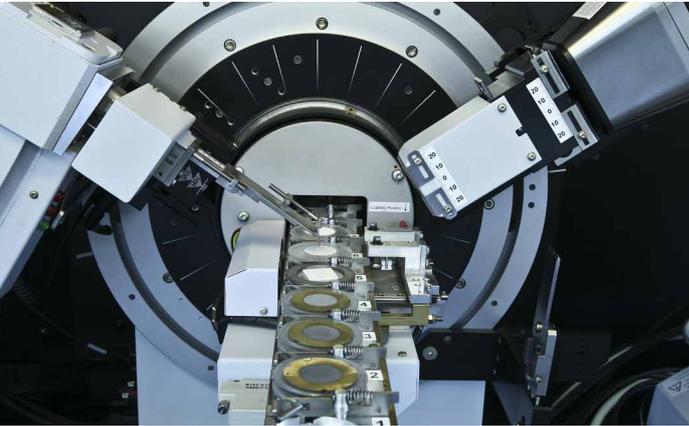
Available techniques:

- Rotational rheology
- Oscillatory rheology
- Combination of rotational and oscillatory rheology
- Capillary viscosimetry (single point measurements and dilution series, e.g. intrinsic viscosity)
- Surface tension measurements



XRD Laboratory

The XRD Laboratory operates a powerful X-ray powder diffractometer (Bruker AXS, D8 Advance), equipped with a Vantec-1 superspeed detector, a 9-position sample changer, a TTK450 low-temperature chamber (from -193°C to +450°C) and a compact Eulerian cradle.



We routinely analyze rock and mineral samples, experimental products, soils and any other crystalline organic or inorganic material. Samples are finely ground and mounted or dispersed on silicon disks. Minimum sample sizes are a few milligrams.

Standard applications include screening of polymorphs, identification of mineral phases and other crystalline substances and semi-quantitative estimates of modal proportions in multiphase samples. In addition, we conduct Rietveld refinement to perform high quality quantification of mixtures and to constrain crystallographic parameters (lattice constants, site occupancies). We offer analysis of solid samples in reflection geometry, including preparation,

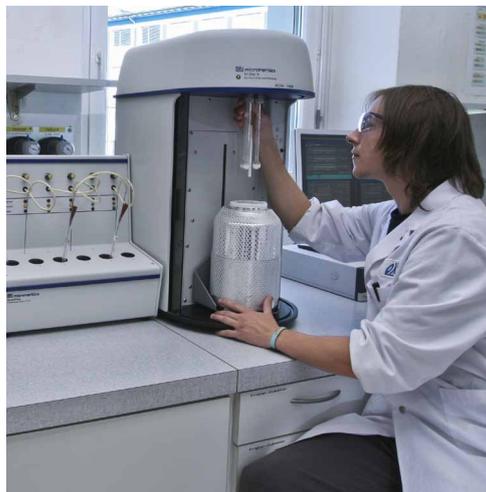
analysis, and interpretation of XRD spectra to external customers at competitive rates and with a short turnover time.

Particle Characterization Laboratory

The Particle Characterization Laboratory employs a wide variety of physical characterization techniques with particular emphasis on fine powders and solid materials. We deliver results needed for research, process optimization and quality control.

Our dedicated team offers service in excellence. Specifically, we are experienced in providing particle size and shape analysis, surface area and gas adsorption services, density determinations and brightness and color testing. We guarantee quick sample turnaround and strict confidentiality of data.

The infrastructure of our laboratory includes:



- Conventional sieve analysis
- Sedimentation (SediGraph III 5120)
- Laser diffraction (wet and dry)
- Dynamic light scattering (Malvern Zetasizer Nano ZS)
- Digital image analysis (Retsch Camsizer)
- Porosity and surface area analysis (BET, Blaine)
- Brightness and color testing (Datacolor ELREPHO)
- Thermogravimetry analysis (TGA)
- Density determination by He-pycnometer
- Attrition and abrasion resistance
- Oil adsorption

Contacts

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**THIS PAPER CONTAINS
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