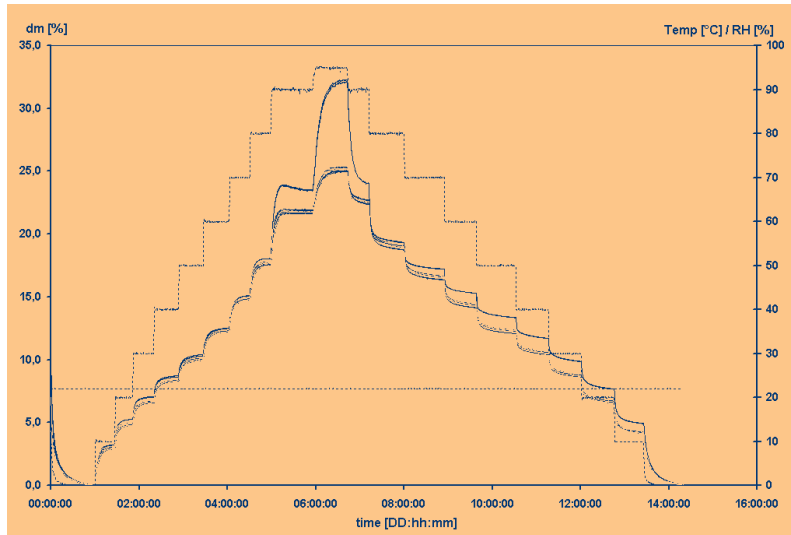


High Throughput Moisture Sorption Analysis



Principle of operation:

The moisture uptake or loss of a material is determined by measuring the increase or loss of weight

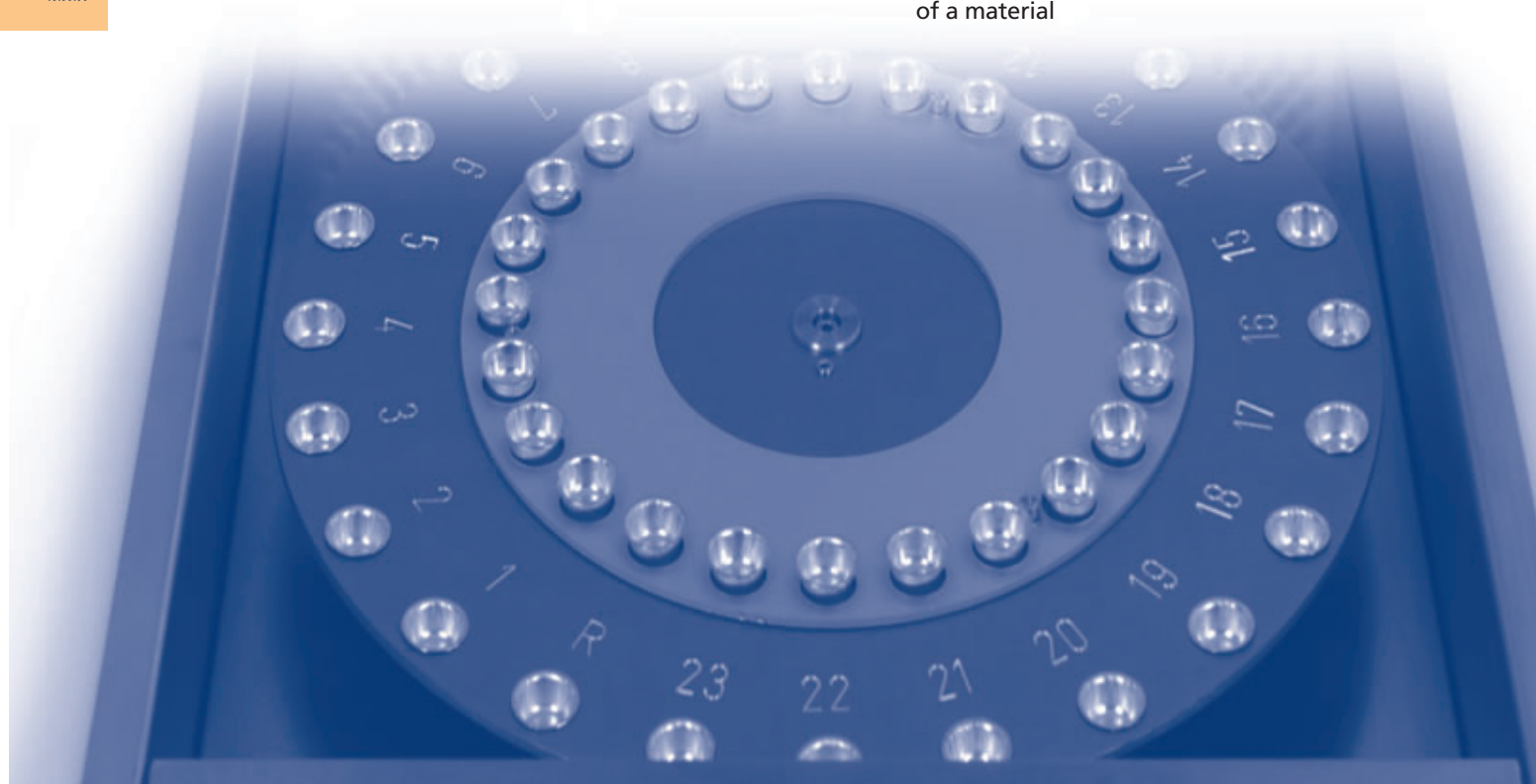
Procedure:

- The samples are exposed to an atmosphere with controlled temperature and humidity
- The increase or loss of sample weight is continuously monitored
- Decrease and increase of mass over time characterize the humidity induced kinetics of a material
- The system recognizes if the samples are at equilibrium with the surrounding atmosphere to continue with the next humidity setting
- The equilibrium values over the preprogrammed humidity settings define the sorption isotherm of a material

Features:

- The SPS Sorption Test Systems are able to measure up to 23 samples simultaneously under identical conditions
- Up to 24 additional samples are available for withdrawal during the measuring cycles for the application of additional analytical methods
- Precise measurements of samples weighting from less than 3 mg up to 80 grams with resolutions available from 10 micrograms up to 100 nanograms
- Optimized airflow along the sample surface and excellent sample surface to volume ratio provides optimized sample kinetics for real Dynamic Vapor Sorption
- Experiments are defined in a clear and straightforward procedure with the possibility to define standard procedures
- The user-friendly design allows easy handling of samples with up to 5 cm diameter

The Instrumental Conditions are fully monitored and documented. All vital instrumental parameters can be calibrated



Main Applications

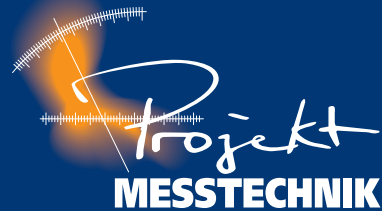
- Hydrate Formation of Drug Substances (Preformulation)
- Stability of Drug and Food Products exposed to Humidity and Temperature (Production and Storage)
- Humidity: Uptake and Loss (Life Science Products, Nutrition Products, Excipients, Textiles)
- Water Permeation and Diffusion through Materials and Polymers (Packaging e.g. Blisters and Films, Textiles)
- Water Uptake and Transport through Building Materials, Minerals and Earth Products
- Investigations to the Flowability and Micronisation of Crystalline Products and Granules
- Solidification and Formation of Clumps for Crystalline and Amorphous Products (Crystalline and Amorphous Bulk Materials, Excipients, Tablets)
- Sorption and Desorption Isotherms of Hygroscopic Materials



**Faster to the Market
with improved
Product Stability & Quality vs. Water.**



**SPS
Moisture Sorption Analysis**



Projekt Messtechnik
Dipl. Ing. Jürgen Dillenz
Grimmelfinger Weg 65
89077 Ulm
Fon +49 (0)7 31 / 379 357 74
Fax +49 (0)7 31 / 379 357 80
info@pmtj.com
www.pmtj.com

Änderungen im Interesse des technischen Fortschritts vorbehalten.
Subject to modifications in the interest of technical progress.

