**APPLICATION REPORT**

 **DWF-AWB-30**

**PROCESS MOISTURE ONLINE DETERMINATION**

For the on-line determination of process moisture, various methods can be applied, for instance infrared, microwave or conductivity. X-rays are rarely used because of the safety aspects involved. Other methods are listed under DWF DRAWER 35th All methods have advantages and disadvantages and thus adapt to the respective application.

Should the process moisture be determined, the respective measurement methods must be adapted to the material. A particularly low-cost method to determine the equilibrium moisture has been established. There come to determine with this method economical capacitive transducer used to the moisture on the surface of the material. The relation to the process moisture arises from the creation of sorption isotherms. At different temperatures corresponding to several sorption isotherms must be created, which are stored in a computer.

Also possible are empirically determined parameters. Thus, e.g. in the manufacture and in the operation of internal transport of coffee, a value for the ambient humidity are determined, which corresponds to a defined water content of coffee (about 4%). Or at drying of bricks, a value for the relative humidity is determined, at which point the drying process is terminated.

In summary, the online determination of process moisture on the principle of equilibrium moisture content (also water activity) can be used with the described cost-effective methods for a variety of applications.