

## Microwave Synthesis Reactor (Monowave 300, Anton Paar)

► **Specific components:** high-density microwave field chemical synthesis reactor and single-mode waveguide, microwave cavity swivel lid, integrated IR temperature sensor, ruby immersion vessel thermometer, EKOM compressor for cooling and non-invasive lid control

► **Performances:** very high reproducibility of the syntheses; efficient monitoring and double control, high-accuracy control of the temperature through an external IR sensor for the reaction vessel as well as through a high-precision sensor with direct immersion in the reaction medium; pressure control in the vessel during the reaction; operating temperature up to 300 °C and pressure up to 30 bar (435 psi); adjustable in situ magnetic stirring; reaction vials of different sizes up to 30 ml; optimized synthesis protocols can be directly transferred to larger instruments as well; automatic closing/opening of the reaction vessel; increased security for the operator; easy operation and low maintenance costs; friendly touch screen user interface; USB ports and Ethernet connection

► **Total value:** 91.891,44 Lei (aprox. 20.000 Euro)

► **Aquisition year:** 2012

► **Applicability:** Materials Science, Biomedical Sciences, Organic Chemistry, Pharmaceutical Research and other fields involving high-precision syntheses including: nanoparticle synthesis, polymer functionalization, condensation reactions, metal catalysis, proteomics, etc.

### ► **Availability for Access and Use**

Contact persons:

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Available for a pre-evaluation of the complexity of the samples and estimation of the working time, in the 9:30 - 17:30 interval, based on a preliminary email or phone appointment.

**Usage conditions:** exclusively by the personnel responsible for the mentioned specialty

**Analysis price - extern UBB:** Preliminary evaluation – free of charge, 150 lei/sample

**Analysis price - intern UBB:** free of charge