High-pressure line for work with subcritical and supercritical fluids

Description/Parameters

Laboratory high-pressure flow apparatus equipped with high-temperature stainless steel columns (5-32 mL) using subcritical water and/or pressurized hot/supercritical solvents (e.g. alcohols, diluted acids). Working temperature range \sim 25-275°C, pressure range \sim 1-40 MPa, flow of liquid \sim up to 10 mL/min, available two independent working extraction ports.

Utilization/Services

- Preparation of inorganic oxides-based nanostructured materials in various macroscopic forms (powders, thin films, porous aerogels/monoliths),
- Hydrothermal treatment of biomass and carbon-based nanomaterials,
- Extraction of value-added natural compounds from solids (e.g. waste biomass).





