

PROFESSIONAL ULTRASOUND SYSTEMS for LABORATORIES



ULTRASOUND TREATMENT

LabT1

We optimize the extraction of active plant ingredients in a simple, practical, economical and sustainable way.

The intense and focused cavitation action of ultrasound facilitates the breakdown of plant cell walls, improving extraction yield and reducing processing times compared to traditional methods.

Our LabT1 system is perfect for artisanal or laboratory production of:

Extracts of active plant ingredients

Extraction of essential oils (lavender, mint, rosemary, citrus, etc.).

Extraction of polyphenols, flavonoids, alkaloids, terpenes, anthocyanins, tannins.

Preparation of extracts for natural cosmetics or phytotherapeutic products.

Extraction of natural pigments (chlorophyll, carotenoids, curcumin, etc.).

Natural cosmetics and aromatherapy products

Concentrated extracts for natural creams, lotions, conditioners and shampoos.

Aromas and fragrances for aromatherapy or room fragrance.

Small quantities of high-yield lipophilic or hydroalcoholic macerates.

Food and nutraceutical products

Extraction of natural flavors or functional additives from plants, spices or fruits.

Production of antioxidant extracts for food supplements or functional drinks.

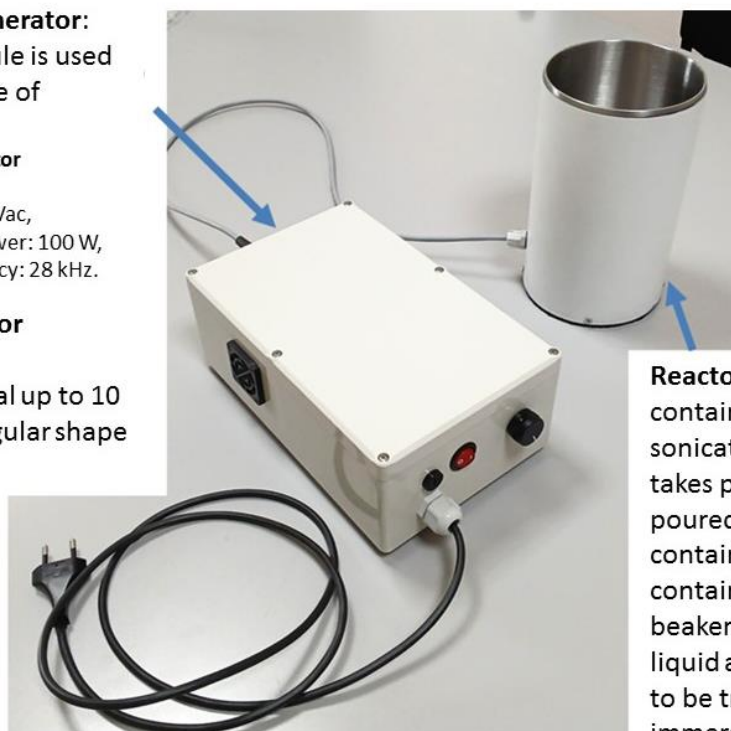
Improving the extraction of aromatic substances in experimental liqueurs or infusions.

LabT1: modular and flexible system, suitable for every need

Ultrasound Generator:
the same module is used
for a wide range of
reactors.

**Ultrasound generator
characteristics:**
Power Supply: 230 Vac,
Max ultrasound power: 100 W,
Ultrasound frequency: 28 kHz.

**Available reactor
capacity:**
1 liter cylindrical up to 10
litres in rectangular shape



Cylindrical reactor
capacity: 1 liter

Reactor: it is the
container where the
sonication treatment
takes place: water is
poured into the
container and a glass
container (laboratory
beaker) containing the
liquid and the material
to be treated is
immersed.

It is essential for:

- **Laboratories and herbalists that produce cosmetics based on natural plant extracts.**

Extraction of essential oils, hydroalcoholic or glycolic extracts, lipophilic macerates, research into new formulations with «green» ingredients, development of prototypes and samples prior to production.

- **Nutraceutical companies and food supplement manufacturers.**

Tests on new natural solvents (ethanol, glycerin, water etc.), extractions of polyphenols, flavonoids, alkaloids, anthocyanins, studies of extraction yield and stability of active ingredients.

- **Research laboratories and universities.**

Departments of chemistry, agriculture, pharmacy, environmental sciences and biotechnology experiment with ultrasound-assisted extraction (UAE) comparative tests between techniques (maceration, Soxhlet, microwave and ultrasound) and sample preparation for analysis (HPLC, GC-MS and spectrophotometry).

- **Agri-food companies producing natural flavors.**

Processing of plant-based raw materials to produce flavorings, artisanal liqueurs and spirits, infusions and functional ingredients for beverages and foods.

- **Artisanal companies that produce natural preparations for direct sale.**

Rapid yield and purity of extracts, production of pilot or customized batches, quality production without major investments in industrial machinery.

THE ULTRASOUND LABORATORY

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