

Sujata apparatus: An extracting apparatus



Problem addressed

Extraction with older apparatus was limited to only heating, distilling and using supercritical fluid which needed technical knowhow, optimisation for increasing yield wasn't possible.

Due Lack of local extraction facility, Natural products which are found in far flung rural areas like the King chilly are wasted in transport. India has lot of bioresource in North east part but because of unavailability of extraction process/apparatus and less developed transport most of it remains untapped.

Inventor:

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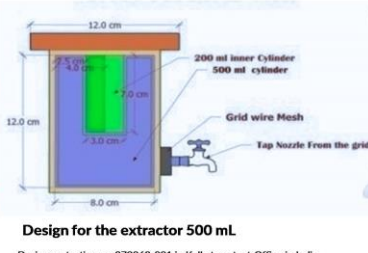
Intellectual Property:

Design no 373068

Application

- ✓ R&D and Innovation Labs
- ✓ Small scale bioprocessing unit
- ✓ Cosmetics and Personal Care product extraction
- ✓ Herbal and Traditional Medicine
- ✓ Flavour and fragrance Industry

Cross Sectional view



Design for the extractor 500 mL

Design protection no 373068-001 in Kolkata patent Office in India.



Extractor deassembled

Extractor outer look
Design for the extractor 5 L

Schematics and picture of Extractor

Technology:

It is an **Extractor** for extracting bioactive and fractions from natural products. It consists of a **chamber, lid, outlet and grid** and a **removable inner cylinder**. The inner cylinder is for adjusting volume and creating pressure. The grid which is detachable is for filtering the extract from solid natural product used for extraction .

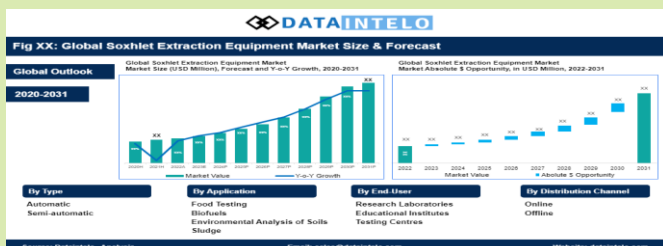
Category of the invention:

- ✓ Extraction Technology
- ✓ Laboratory Equipment
- ✓ Bioprocessing and Biotechnology
- ✓ Herbal Industry
- ✓ Sustainable Processes
- ✓ Bioactive Compound Isolation

Advantage:

- ✓ Extraction under different conditions is made available by varying the extraction conditions with a single apparatus.
- ✓ Extraction can be performed with less technical knowhow.
- ✓ Extraction is made low cost in turn would bring down price of final product.
- ✓ Extraction research is made possible with variants in size and in parameters like temperature, pressure with only one extractor.
- ✓ Framers can be trained to learn extract where bigger industries will also save money spend for transport, storage and processing till extraction

Potential Value:



USP:

- ✓ Versatility in Extraction Conditions
- ✓ Ease of Use
- ✓ Adjustable Volume and Pressure
- ✓ Customizable Size
- ✓ Cost-Efficient
- ✓ Optimum extraction condition is room temperature
- ✓ Improved yield

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