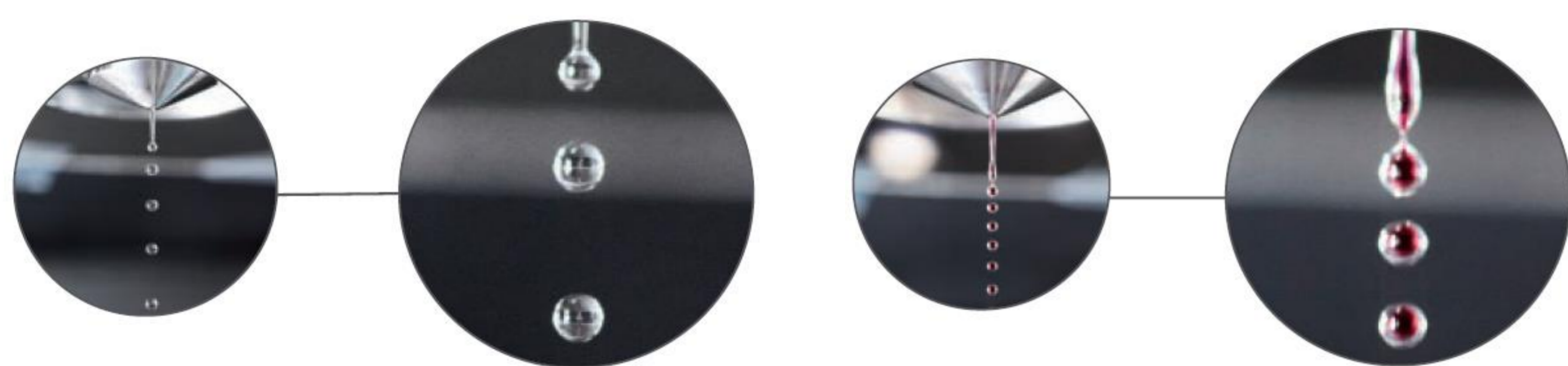


Principle :

The encapsulation uses the principle of separation of laminar flow liquid jet into droplets of uniform size by applying a superimposed vibration.

The droplets receive an electrostatic charge, which keep them away from each other. They then fall into a polymerization solution where the beads are rapidly polymerized or in a "cold chamber" where the beads have solidified.



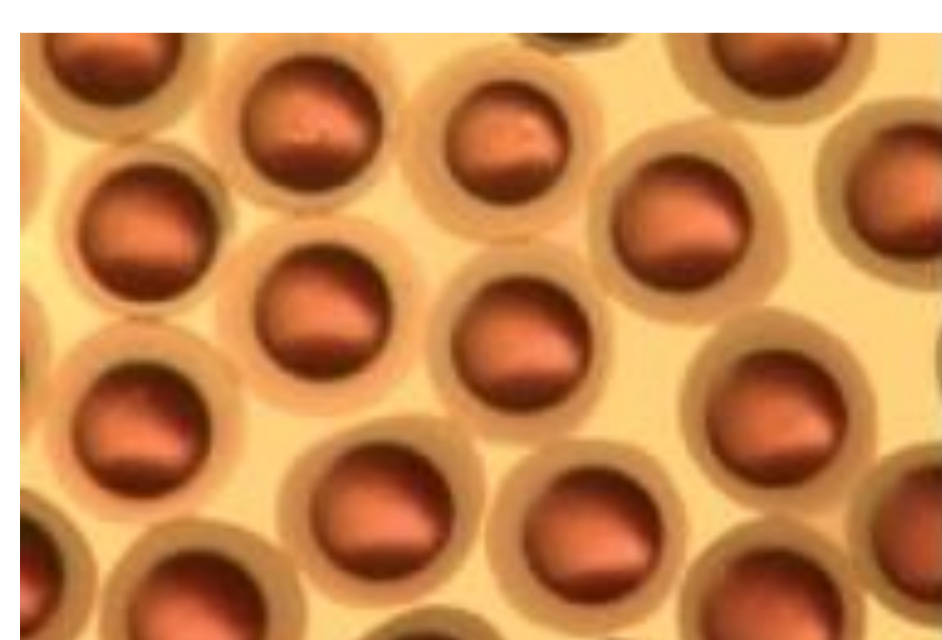
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Applications :

- ✓ Protection of active compounds (eg reduction of interactions with other molecules during storage),
- ✓ Coating particles with new functions (eg modulation release),
- ✓ Taste masking,
- ✓ Encapsulation of probiotics ingredients,
- ✓ Stabilization and protection of nutraceuticals,
- ✓ visual enhancement of food,
- ✓ Molecular gastronomy,

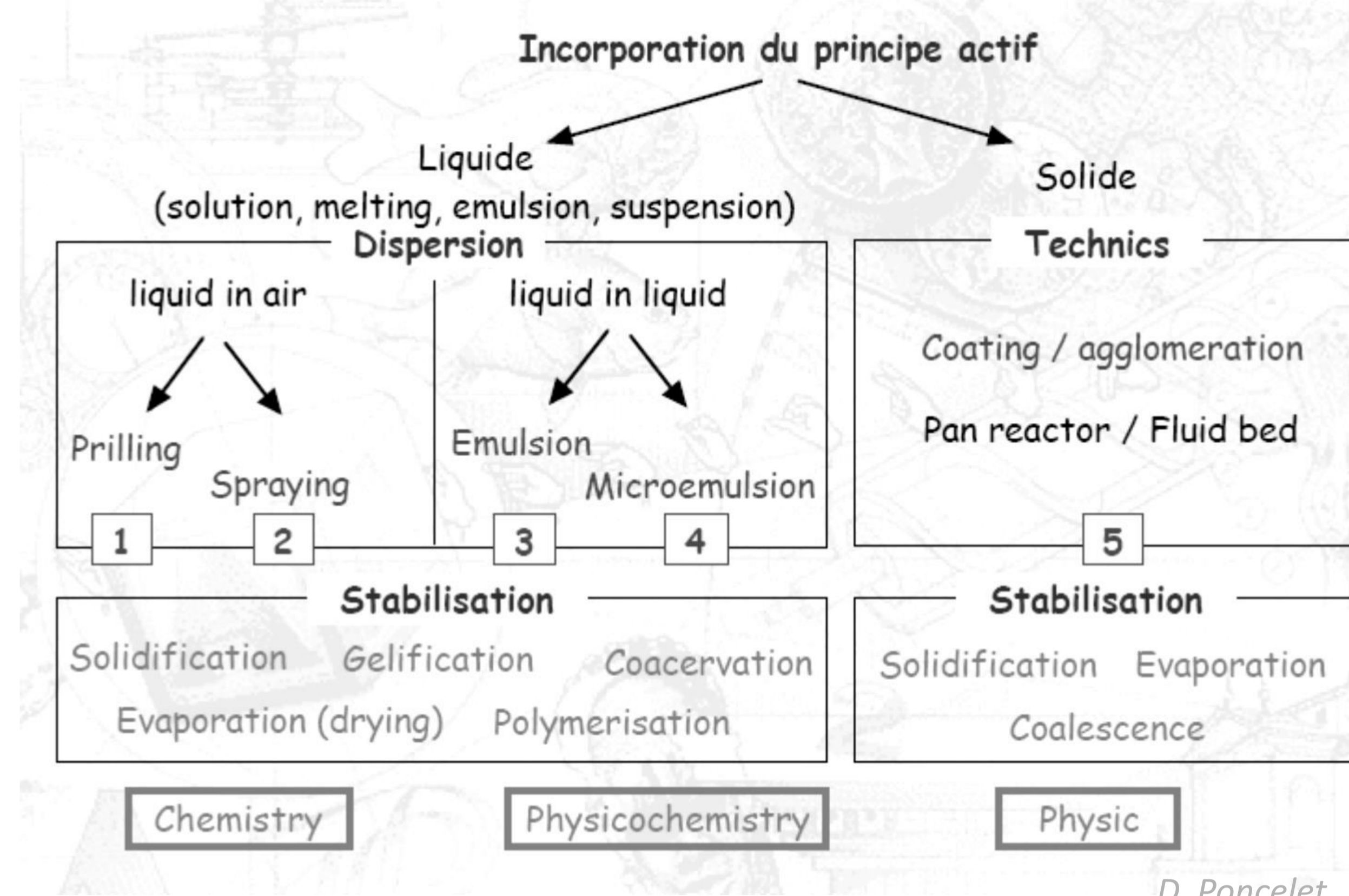
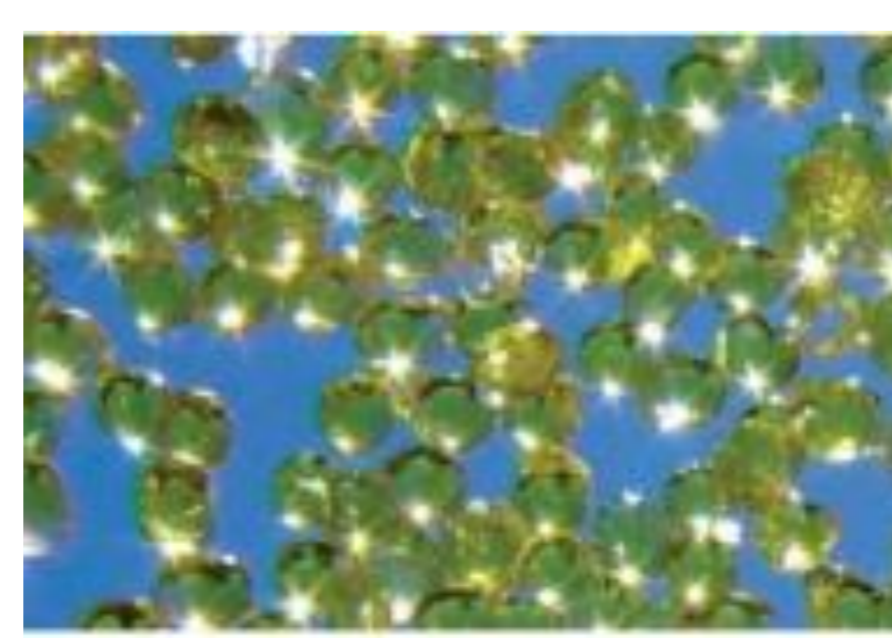
Small alginate capsules containing oil sunflower and carotene



Encapsulation of lactobacilli



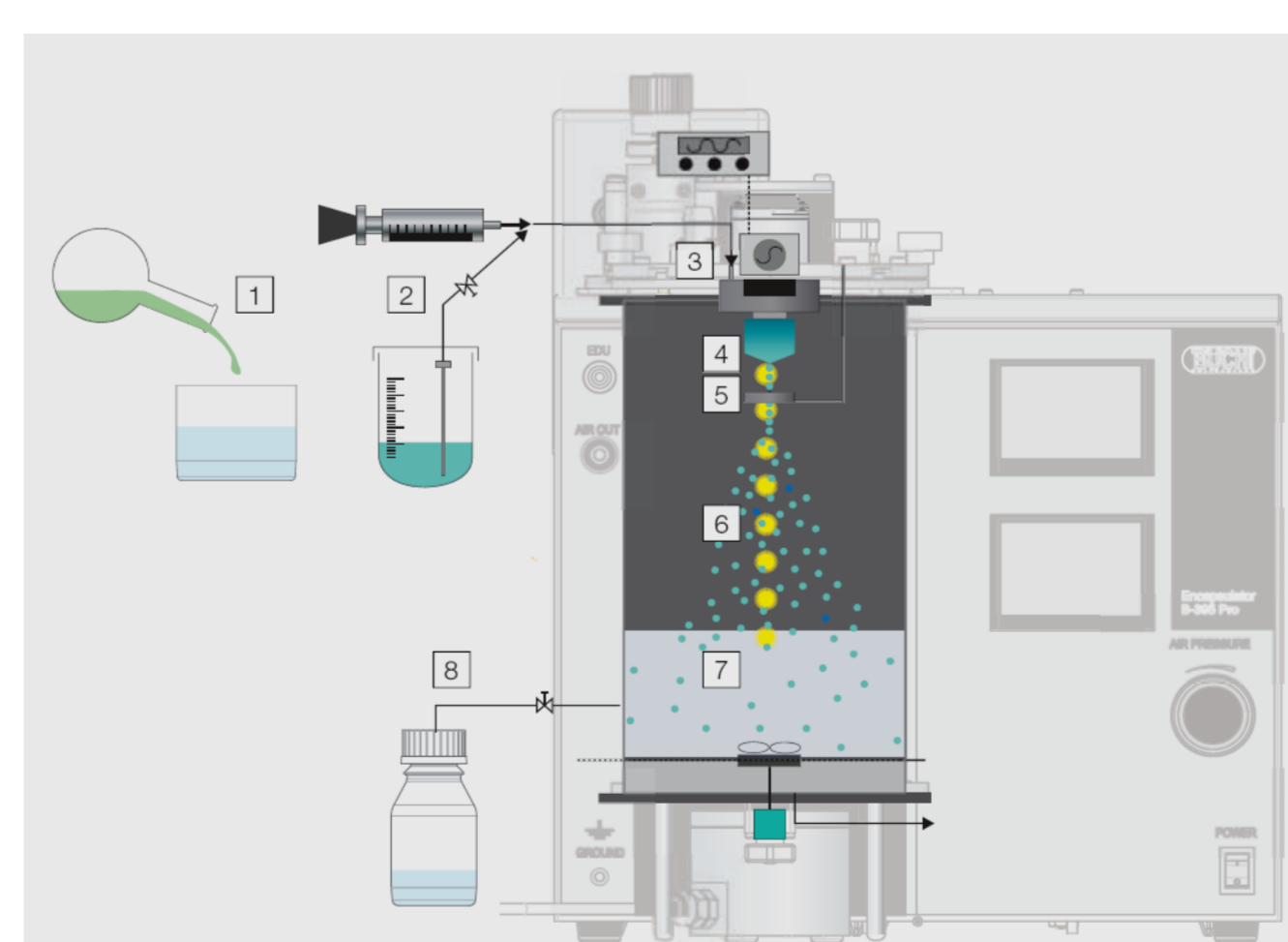
Vitamin storage Taste masking



Equipement :

The nozzle vibration frequency, which can be selected, determines the amount of produced droplets. For instance, a vibration frequency of 1,000 Hz generates 1,000 droplets per second.

- ✓ Numerous applications and production capabilities for different scientific fields
- ✓ Preparation of beads and capsules
- ✓ Production of a wide range of particle sizes (150 µm - 4 mm): 8 nozzle sizes available
- ✓ Work with a wide range of sample volumes (≥ 5 ml)
- ✓ Employment of a wide range of different polymers and materials
- ✓ Operate with viscous solutions due to temperature control of nozzle (up to 80°C)



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