

## Sublimation and solubility of iodine

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### Principle

Iodine, whose melting point is at 113.5 °C, evaporates clearly below this temperature. It passes from the solid state directly to the gaseous state. This process is known as sublimation.

When iodine vapour cools down, solid crystals form, again without a liquid transitional phase. This process is known as resublimation.

### Benefits

- Stable and safe setup due to solid stand material
- Secure connection of the items by GL screw joint system

### Tasks

1. Show sublimation and resublimation of iodine.
2. Investigate the solubility of iodine in oxygen-containing and oxygen-free solvents.

### Learning objectives

- Sublimation
- Resublimation
- Solubility
- Iodine

## Scope of delivery

Retort stand, h = 750 mm	37694-00	1
Right angle boss-head clamp	37697-00	1
Universal clamp	37715-01	1
Round bottom flask, 250 ml, 2-neck, GL25/12, GL18/8	MAU-27220005	1
Condenser, reflux, with 2Gl conn.	MAU-27225500	1
Closure caps, 10, GL18	41220-00	1
Crystallizing dish, boro 3.3, d = 60 mm	46245-00	1
Mortar with pestle, 150 ml, porcelain	32604-00	1
Rubber stopper, without hole	39254-00	5
Lab thermometer, -10..+150C	38058-00	1
Test tube, various lengths	37656-10	1
Test tube rack, wood, for 6 tubes d= 22mm	MAU-20042200	1
Spoon, special steel	33398-00	1
Wash bottle, plastic, 500 ml	33931-00	1
Rubber hose	39282-00	2
Hose clip, diam. 8-16 mm, 1 pc.	40996-02	2
Iodine resublimed 25 g	30093-04	1
Ethyl alcohol, absolute 500 ml	30008-50	1
Diethyl ether 250 ml	30007-25	1
n-pentane 250 ml	31707-25	1
Cyclohexane 1000ml	31223-70	1
Water, distilled 5 l	31246-81	1