# Surface tension of liquids

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**Principle**

The cohesive forces in a liquid generate tension on its surface, the so-called surface tension. A metal ring that is plunged into a liquid is withdrawn from the liquid. At a certain tensile force, the liquid film will be disrupted from the ring. Based on the tensile force and ring diameter, the surface tension of a liquid can be calculated

## Benefits

- High sensitivity measurement possible thanks to ring method
- Analogue set-up that can also be used as a demo experiment in the lecture hall
- Interdisciplinary use also in applied sciences or physical chemistry

## Task

Examine the surface tension of a liquid.

## Learning objectives

- Wetting and non-wetting liquids
- capillarity

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## Scope of delivery

| | | |
|---|---|---|
| Tripod base PHYWE | 02002-55 | 1 |
| Right angle clamp expert with fulcrum screw | 02054-00 | 1 |
| Support rod, stainless steel, different lenghts | 02033-00 | 1 |
| Rod with hook | 02051-00 | 1 |
| Surface tension measuring ring | 17547-00 | 1 |
| Petri dish, d 200 mm, glass | 64757-00 | 1 |

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|---|---|---|
| Water, distilled 5 l | 31246-81 | 1 |
| Lab jack, 200 x 200 mm | 02074-01 | 1 |
| Spring balance, transparent, 0,2N | 03065-01 | 1 |

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