Contribution ID: **246** Type: **Poster**

【257】Surface tension measurement of pure water in vacuum

Tuesday 31 August 2021 19:06 (1 minute)

Little is known about the surface tension of pure liquids in contact with their pure gaseous phases, i.e. without the presence of other gases or contaminants. This is surprising given that contaminants are known to greatly affect surface tensions values.

Recently we have developed a method to dose liquid water with UHV purity using a small cryostat[1]. We combine this approach with the pendant drop method to measure the surface tension of ultra-clean liquids. A pendant drop of the liquid is formed in UHV and carefully photographed allowing the surface tension of the ultra-pure liquid to be directly determined.
[1] Jan Balajka, et. al., Review of Scientific Instruments 89, (2018)

Primary authors: RYAN, Paul (TU Wien); PAVELEC, Jiri (TU Wien)

Co-authors: Dr BALAJKA, Jan (TU Wien); SCHMID, Michael (TU Wien); DIEBOLD, Ulrike (Institute of Applied Physics, TU Wien)

Presenter: RYAN, Paul (TU Wien)

Session Classification: Poster Session

Track Classification: Surfaces, Interfaces and Thin Films