1	Determination of the H content of a tristearin layer prepared by physical vapour
2	deposition
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10	Abstract
11	In the frame of reference fluence measurements with a proton recoil telescope solid layers with thicknesses up to
12	25 mg cm^{-2} and with a well-known and stable hydrogen content above 12% were requested on circular tantalum
13	discs. Tristearin was chosen as the most suitable compound to correspond with these requirements. As best
14	available deposition method to prepare homogeneous layers with this material, physical vapor deposition was
15	applied.
16	Although never confirmed, no stoichiometric differences are expected between the deposited layer and the bulk
17	tristearin powder prior to the evaporation. In this understanding, the hydrogen content of the layer is known
18	according to the starting material and its purity. No hydrogen analysis was however performed yet with an
19	accuracy good enough to confirm the stoichiometry of the starting material as well as the stability of the
20	hydrogen content prior and after evaporation.
21	In this work, thick tristearin deposits were prepared with a modified evaporation setup. The deposited thickness
22	was determined by means of accurate weighing and the hydrogen content before and after evaporation was
23	characterized by combustion analysis with an uncertainty of 0.8% which was low enough to observe possible
24	stoichiometric differences.
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