EPFL-TTO

EPFL Innovation Park J
CH-1015 Lausanne
Switzerland
+41 21 693 70 23
http://tto.epfl.ch/

Research Contact

Ulrich Lorenz
+41 21 693 31 11
ulrich.lorenz@epfl.ch

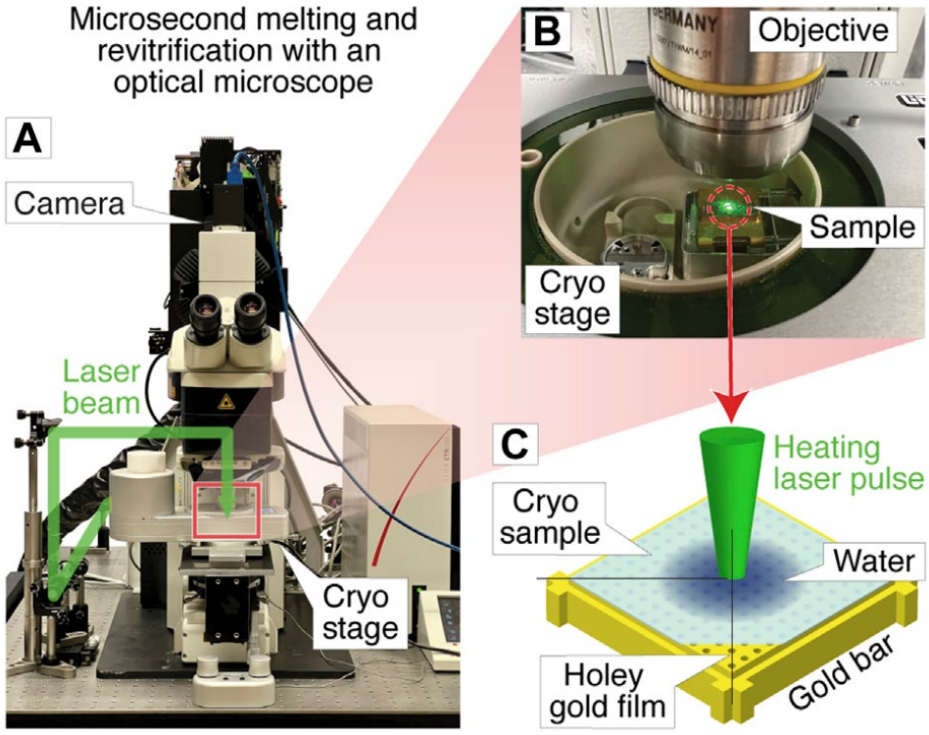
TTO Contact

Ghislain Singla
+41 21 693 54 77
ghislain.singla@epfl.ch

Licensing Opportunity

TTO – Technology Transfer Office

Laser melting of cryo-EM samples with an optical microscope



Ref. Nr

6.2409

Keywords

Cryo-electron microscopy, time-resolved cryo-EM, correlative light-electron microscopy

Intellectual Property

US provisional application

Publications

https://www.frontiersin.org/articles/10.3389/fmolb.2022.1044509/full

Date

20/06/2024

Description

Cryo-electron microscopy (cryo-EM) is rapidly becoming the preferred method in structural biology. We have developed a laser melting method to improve the sample properties and allow for time-resolved observations of protein dynamics. Here, we show how an optical microscope can be used to perform the laser melting experiments in a correlative light-electron microscopy approach.

Advantages

Our method has caused a lot of excitement among cryo-EM practitioners and the wider structural biology community. The correlative method we have developed promises to allow many to enter this field due to its technical simplicity.

Applications

- Improvement of cryo-EM sample quality
- Overcoming preferred orientation
- Time-resolved observations of protein dynamics