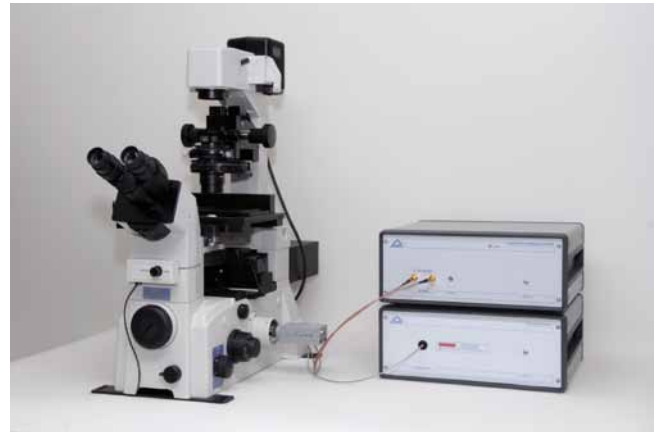
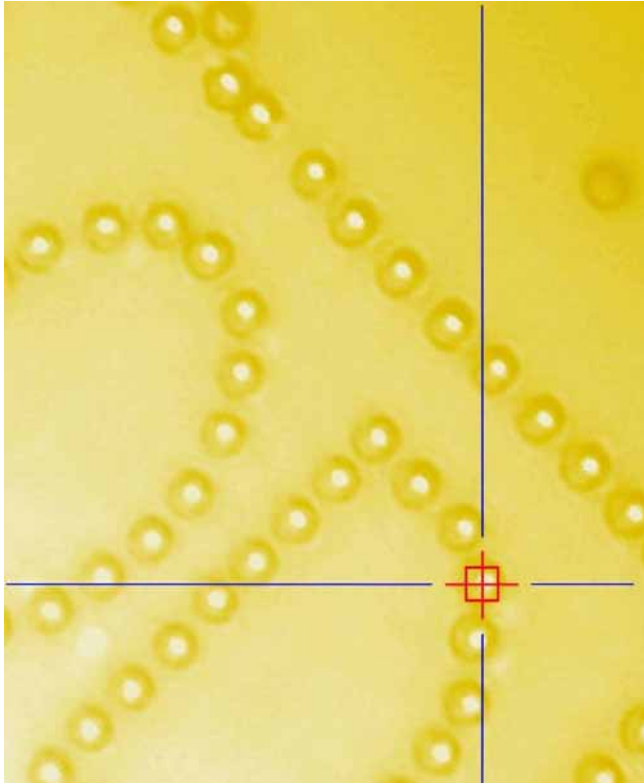


Tweez 200si

A complete turn-key laser tweezers system

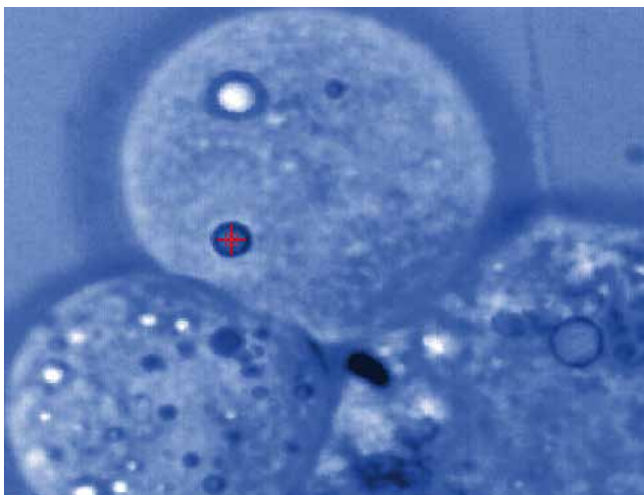
Tweez – the art of optical manipulation

A complete turn-key laser tweezers system.



Compact and robust system design

Versatile



Colloid manipulation inside the living cell

Based on acousto-optic (AO) laser beam deflection technology Tweez enables you to create complex trapping patterns. Manipulation of trapped objects is possible through flexible control of trapping sites with unprecedented positional and time accuracy.

What is tweez?

- A complete turn-key laser tweezers system .
- Designed to fit Nikon TE2000/Ti-E microscopes – no optical table required.
- Modular design to meet diverse user/application requirements.
- Fast DSP/FPGA state-of-the-art control system.
- 5 W 1064 nm IR laser .
- User friendly open architecture software control system.
- Complex trapping patterns for simultaneous control of over 1000 particles.
- Up to 4 million user preloaded trapping site patterns.
- Real-time dynamic trapping pattern morphing.
- Sub nanometer trap positioning resolution.
- Up to 100 kHz trap-to-trap switching rate.
- Typ. 150 μm^2 trapping range (depending on the microscope objective).

Easy to use

Tweez functionality is accessible through simple and intuitive yet powerful software control. Used in either standalone or externally driven mode the Tweez software package allows you to control your experiment down to the smallest detail.





Tweez 200si

A complete turn-key laser tweezers system

State-of-the-art technology



Tweez system

Tweez is a complete turn-key laser tweezers system. Designed to fit Nikon Eclipse TE2000/Ti-E microscopes it combines its powerful laser tweezing manipulation capabilities with microscopy techniques delivered by the microscope. Tweez is designed for zero maintenance and let you focus on your application.

Compact

Tweez AO laser beam steering - the only technology capable of sub nanometer optical trap positioning and trap-to-trap switching rates of up to 100 kHz. Unique optics topology is used to pack all optical components into a single ultra stable unit. With multiwatt IR fiber laser Tweez can achieve a simultaneous control of 1000+ trapped objects.

Range of applications

Designed to serve variety of applications Tweez finds its use ranging from physics to biology, from fundamental research to industrial applications. The precision and ease-of-use let you maintain the focus on your project. Advanced I/O and synchronization capabilities along with open software architecture provide a custom control for the most demanding setups.

Superior control

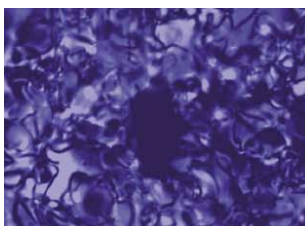


Powerful software control

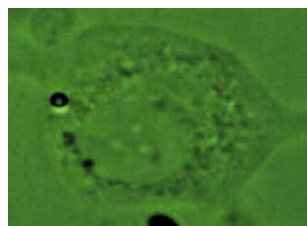
To facilitate a precise control over complex trapping patterns Tweez relies on an ultrafast on-board processing connected via fast USB communication to a PC based software. Several million trap positions can be stored in an on-board memory and selectively applied within a microsecond – a flexibility giving a total control over the experimental setup.

Where is Tweez?

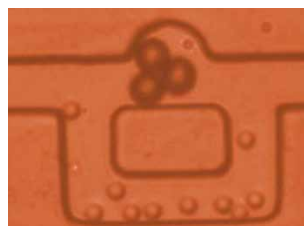
- ETH Zürich, Switzerland,
- University of Oxford, UK,
- University of Karlsruhe, Germany,
- University of Stuttgart, Germany,
- Max Planck Institute, Stuttgart, Germany,
- Università' di Milano, Italy,
- Josef Stefan Institute, Ljubljana, Slovenia,
- University of Ljubljana, Slovenia.



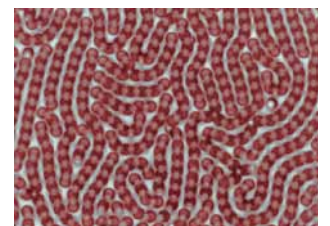
Liquid crystals



Biophysics - biology



Micro fluidics



Colloidal physics

