

iDiagnostics (iTIRF Arrays)

TIRF Microscopy

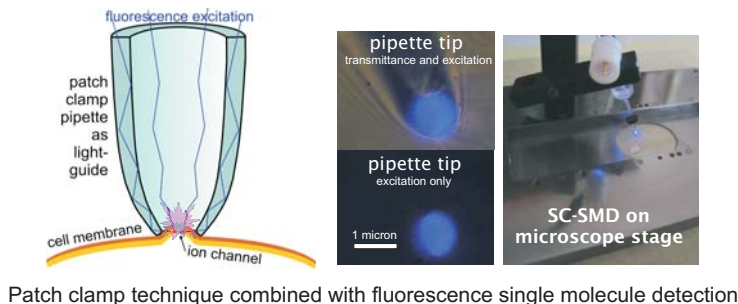
TIRF Spectroscopy



TIRF Labs

Total Internal Reflection Fluorescence

Single ion Channel Single Molecule Detection



iDiagnostics

cellphone based molecular diagnostics



We extended TIRF into 3rd dimension and invented iDiagnostics
Now you can hold a hospital laboratory in the palm of your hand

Turnkey Single Molecule Detection TIRF Microscopy System



Modular TIRFM systems include:

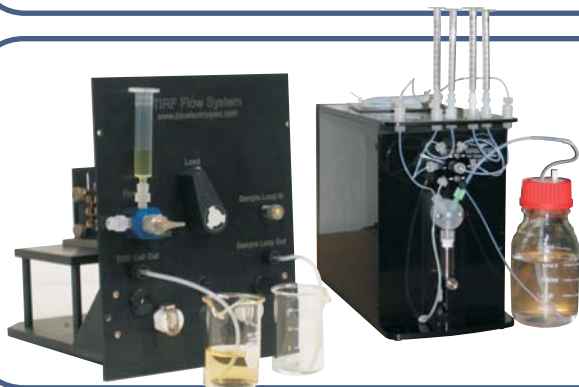
- Fluorescence microscope
- Ig-, p-, or/and o-TIRF microscopy flow systems
- Low light EM CCD camera
- Multi-color computer-controlled illuminator
- Digital fluidics SmartFlow
- Optional temperature and electric field control
- Software for instrument control and data analysis

Prism- and Lightguide-based TIRF Microscopy Accessories

- Single molecule detection, cell membrane studies
- Superior signal-to-background ratio
- Minimal stray light, crisp, high-contrast TIRF images
- Work with dry, water-, and oil-immersion objectives
- Use UV or visible excitation light 190-900 nm
- Use Petri-dish, open perfusion, or closed flow chamber
- Nested design - fits inside 96-well plate, K-frame. 4-inch round, or manual XY stage
- Optional temperature and electric field control



TIRF Accessories for Fluorometers



- **TIRF Accessory TA-1004** transforms a spectrofluorometer into a super-sensitive TIRF biosensor instrument
- Optional electrochemical, DEP and temperature control
- **SmartFlow** Fluidic System allows to run unattended TIRF experiments, measure sensograms to derive k_{on} and k_{off}
- Microfluidic system allows for handling nanoliter volumes