

# Microchip Electrophoresis Laboratory Equipment List

## Optical Breadboard

3'x4'x4": SG-34-4  
Newport, Irvine, CA

## Solid-state 488 nm laser

85 BCD 010 115  
Melles-Griot, Carlsbad, CA

## 10x beam expander

T81-10x  
Newport, Irvine, CA

## Inverted optical microscope

TE 2000 S  
Nikon, Melville, NY

## Filters

Excitation: Z488/10X  
Dichroic: Z488RDC  
Emission: HQ510LP  
Chroma, Brattleboro, VT

## Objective

Long working distance 20X 0.45 NA  
Nikon, Melville, NY

## Confocal pinhole

Mounted, 400 micron: 04 PPM 019  
Melles-Griot, Carlsbad, CA

## PMT

H9 306-02  
Hamamatsu, Bridgewater, NJ  
The PMT power supply was custom built by the BYU Chemistry and Biochemistry Department Instrument Shop\*

Preamplifier

SR-560

Stanford Research Systems, Sunnyvale, CA

Analog-to-digital converter

NI-USB-6211

National Instruments, Austin, TX

Software

LabView and NI-DAQ

National Instruments, Austin, TX

High voltage power supplies

PS 310 and PS 350

Stanford Research Systems, Sunnyvale, CA

Voltage switching relay

Custom built by the BYU Chemistry and Biochemistry Department Instrument Shop\*

\*Details/diagrams regarding custom-built components can be obtained from the corresponding author.