

Zeiss LSM710 Bi-photon

Start

1. Turn PC ON
2. Turn Main Switch ON
3. Turn Argon laser Key ON (under the desk) (O/I switch can always stay on I)
4. Wait 2 min
5. On the Argon laser controller (on the desk), switch ON (towards top)
6. wait again 2 min
7. Turn tube current knob clockwise until LED is **RED** and then slightly back until **RED LED OFF** (-> 5.9 mA)
8. Turn the 2 other switches ON: -SYSTEM (-> microscope stand)
-COMPONENTS (-> Other lasers, AOM, realtime PC)
9. Start ZEN Software
10. Turn fluorescence lamp ON

Stop

1. If Mai Tai laser was used, put its wavelength to 800nm
2. In ZEN, turn Mai Tai OFF (Standby)
3. Quit ZEN and turn OFF PC (if not needed)
4. Argon Laser:
 - On the Argon laser controller (on the desk), turn tube current knob counterclockwise and switch OFF (towards Bottom)
(->Standby)
 - wait 5 min
 - turn Key OFF (under the table)
5. Turn the 2 other switches OFF: -SYSTEM (-> microscope stand but not PC)
-COMPONENTS (-> Other lasers, AOM, realtime PC)
6. wait 5 min
7. Turn Main Switch OFF
8. Turn Fluorescence Lamp OFF

Bi-photonic use

To use NDDs:

1. On microscope stand, change main dichroïde for the longpass 690
2. in ZEN, as a main beam splitter in front of the Invisible light Lasers, put the longpass 690 or 760
3. Don't put any other filter in the beampath
4. Select NDD (or NDDs) to be active and it's color in the Lightpath window
5. Activate Mai Tai laser and choose wavelength and power

To use GaAsP detector:

1. Quit ZEN
2. Switch OFF COMPONENT and SYSTEM
3. Unplug and remove objective Revolver
4. turn OFF the room light
5. Instead of the objective revolver, mount GaAsP detector (Knob must not be on "NDD" to prevent light from reaching the detector) and plug it (2 plugs)
6. Unplug SUB-LVDS on NDDs
7. Plug supplementary cable (on the table) instead
8. Plug the other end of this same supplementary cable in the LVDS on the GaAsP
9. Plug the free cable (that was unplugged from the NDD) in the SUB-LVDS on the GaAsP
10. Mount the desired lens
11. On the PC, Open Standselect and choose the GaAsP database
12. Start ZEN
13. turn knob on GaAsP on "NDD" position
14. In ZEN, Choose GaAsP detector in the Lightpath window
15. Put longpath 690 as a main beam splitter

Careful: Do not use too much laser power!

Turn off screen and cover any lightsource for acquisition

Configuration (Filters, NDD filters, ...)

- Open Configuration tools 2008 in C:Zen/HWT

Spectraphysics Software

- Use Com port 4