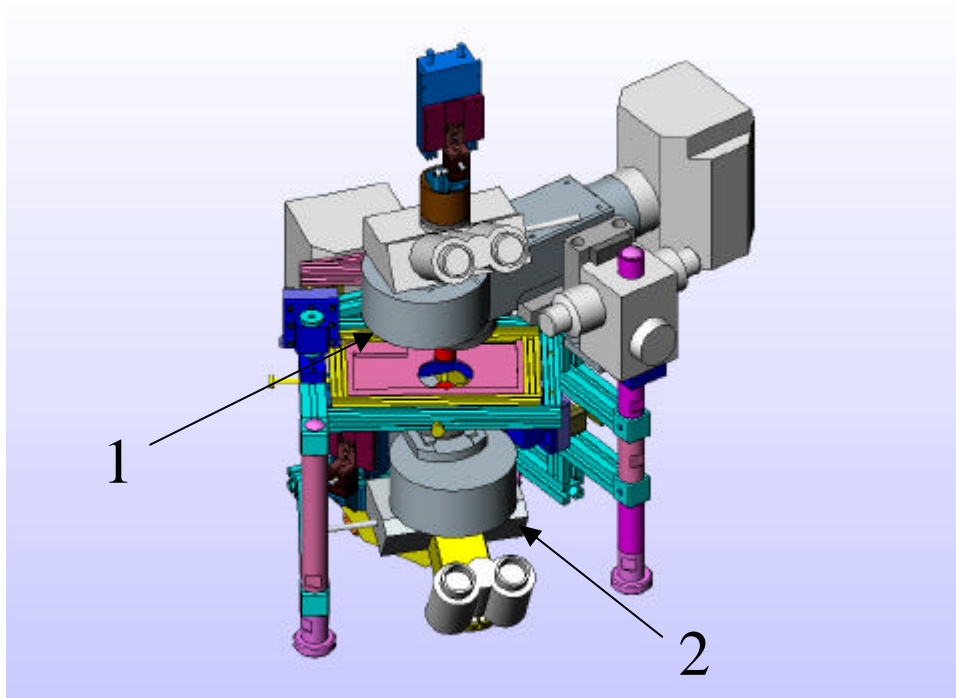


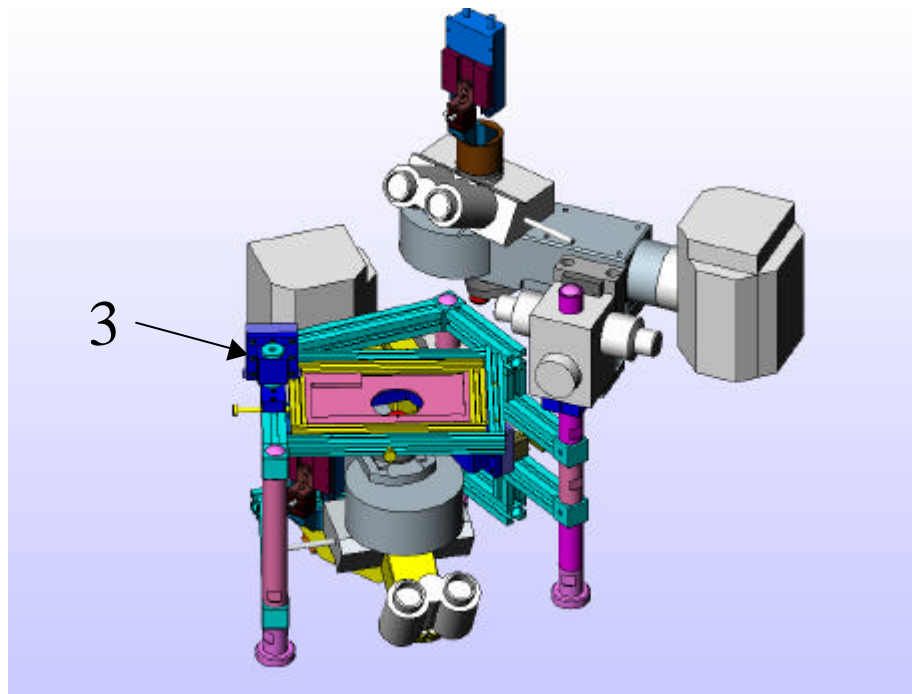
# NANONICS DUAL MICROSCOPE SYSTEM



*Fig.1.* The Nanonics Dual Microscope System allows both upright and inverted fluorescent and transmission microscopic research, simultaneously or independently, without changing the position of the sample.

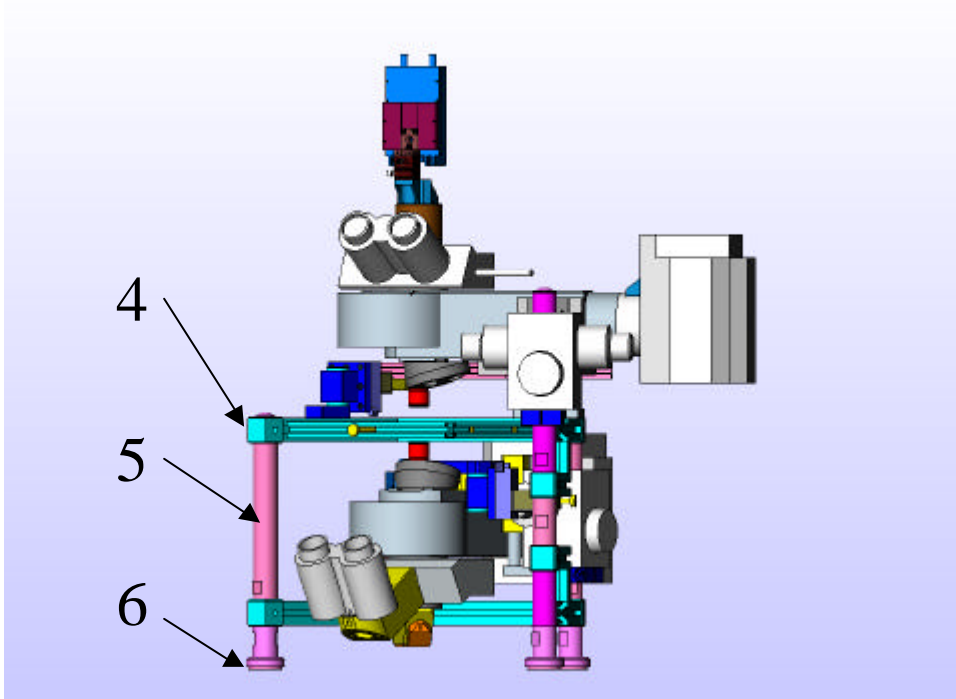
The Dual Microscope incorporates two Olympus fluorescence illuminators mod. BX-FRA (1, 2). The less expensive reflected illuminators mod. BX-URA2 can also be used without any additional modifications.

# NANONICS DUAL MICROSCOPE SYSTEM



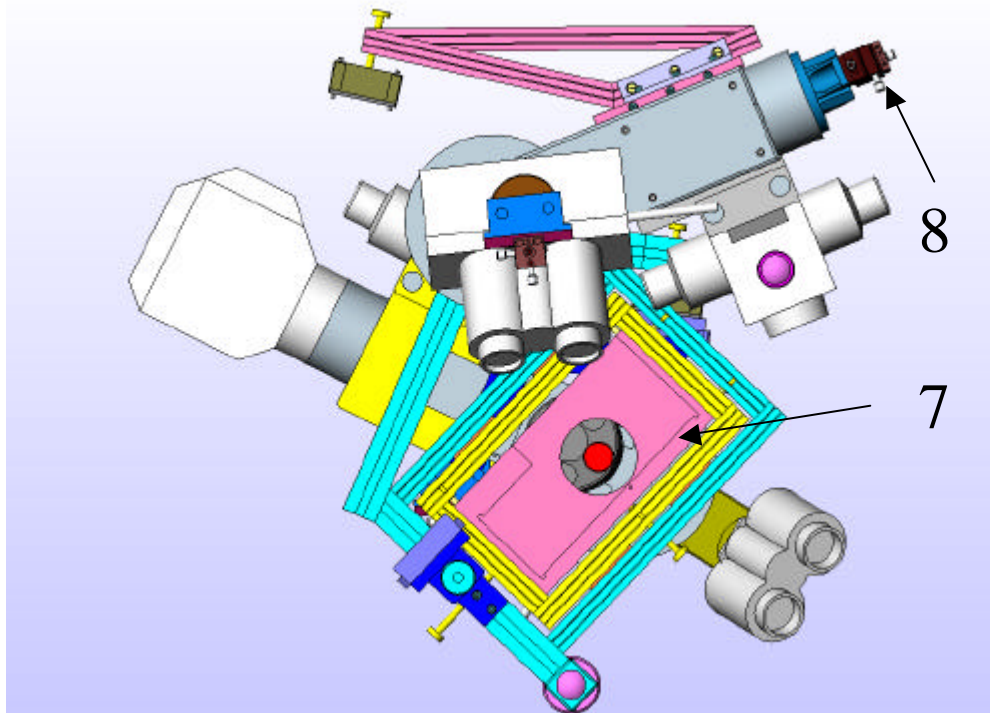
*Fig.2.* Alignment of the optical axes of the upright and downright microscopes is realized by the rotation of the microscopes to the intersection of rotating circumferences of the axes. The fine tangential adjustment is provided with self-aligning precision screws (80 tpi), set on hinges. Fixation of both microscopes is done with help of magnetic devices (3). The downright microscope has very small angle movement, which can be used just for fine adjustment. The upright microscope has a free rotation. It can be used for change of samples, objectives or other operations. For soft return of the upright microscope to working position, the upright magnetic device has a special shock-absorber system.

## NANONICS DUAL MICROSCOPE SYSTEM



*Fig.3.* The Dual Microscope is mounted on a light, rigid frame that consists of horizontal aluminum precision extrusion sections (4) and vertical shafts (5). The upper and lower illuminators are carried by the hardened ground steel parts of the mentioned shafts, and are able to rotate around the shafts. Three supports (6) also parts of the shafts are supplied with both rubber shock-absorbers and flanges that permit fixing the frame on the optical table rigidly if required.

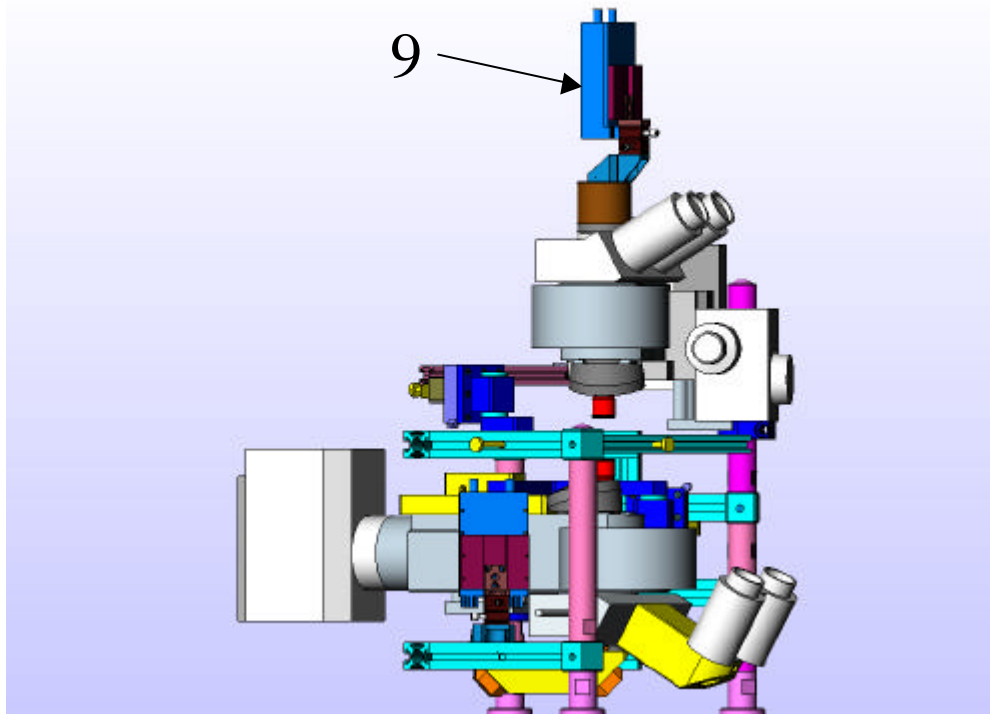
## NANONICS DUAL MICROSCOPE SYSTEM



*Fig.4.* The X-Y table (7) sits on the previously described frame. There are two precision screws (80 tpi) for linear movement. The range of movement is 5 mm in both directions.

The high maintainability of the frame allows changing the X-Y table design according to client's requirements, such as increasing the range, using micrometric screws with verniers, etc. The precision extrusion sections can be used for mounting additional elements such as holders, sliders, etc.

# NANONICS DUAL MICROSCOPE SYSTEM



*Fig.5.* A special mirror-lens adaptor provides very comfortable positioning of the downright microscope observation tubes. Another adaptor provides a comfortable downright microscope outside port orientation. It allows use of one universal mount for APD (9) on both upright and downright ports as well as mounts for CCD or other gauges.

The Dual Microscope is equipped with a confocal device (8, Fig.4), which can be installed on one of the lamp ports. It permits high optical resolution confined only by diffraction limits.

The height of the Dual Microscope is 560 mm (to the upper port); the footprint of supports is a triangle with the sides: 258.5 mm (between axes of the upright and the downright microscopes), 400 mm, 400 mm.