

The **Nikon Eclipse 90i** is an up-right microscope, for use with standard coverslips, analysis of fixed samples (fluorescence and bright-field).

✓ **Digital head**, to perform all microscope-associated operations (shutter, filter change, objective change, etc) both in manual or digital mode.

✓ **motorised along the z-axis**, to acquire stacks of images on different focal planes. Image acquisition along Z is fully motorised

✓ the **acquisition software (Nis-Elements AR)** is highly automated, leaving at the same time a wide flexibility in setting your own personalised experimental parameters; those are automatically registered and can be re-loaded in future experiments; therefore every user can easily rapidly switch to **personalised settings**.

✓ the system is connected to a workstation (see dedicated section) for qualitative and quantitative image analysis; is connected to an external hard disk for temporary storage of data; to a UPS to ensure stability.

✓ Equipped with:

#### Intensilight fluorescence lamp:

- pre-centered fiber illumination system (never needs alignment);
- stable light intensity
- long life lamp (typical lamp lifetime is 2000 hours)
- greatly increased brightness for green spectrum (compared to conventional mercury lamps)
- light intensity control: six discrete levels of light intensity

Objectives: all of the Plan Fluor Nikon series, incredible high contrast and resolution, and correction of spherical and chromatic aberrations:

- 20x (N.A. 0,5),
- 40x (N.A. 0,75),
- 100x (oil, N.A. 1,3)

#### Filter cubes:

- DAPI (Ex 360/40; BS 400LP; EM 460/50) for DAPI, AMCA and similar fluorophores;
- GFP (Ex 470/40; BS 495LP; EM 525/50) for FITC, GFP, EGFP, YFP;
- Cy3 (Ex 545/30; BS 570LP; EM 610/75) for Cy3, rhodamine
- Texas Red/Cy3.5 (Ex 560/40; BS 595LP; EM 630/60) for Texas Red
- Cy5 (Ex 620/60; BS 660LP; EM 700/75)

#### Digital camera QiCAM Fast 1394:

- monochrome (automatic pseudo-coloring of images during acquisition) cooled camera;
- designed for high resolution imaging and acquisition of images for quantitative analysis;

- Technical data: 1392 x 1040 pixels; 4.65 $\mu$ m x 4.65 $\mu$ m pixel size; 1/2" optical format; Electronic shutter; 12-bit; Binning up to 8x8.