FLUORESCENT MICROSCOPE

The Fluorescent Microscope is installed in 2010 at Department of Materials Science and Engineering with financial contribution from Department of Science and Technology, India as well as contributions from sponsored research grants of Drs. K. Balani, K. Biswas and V. Verma. The facility is currently available in the Laboratory for Biomaterials.

Fluorescence microscopy is the basic need for study related to molecular biology and it has made possible to identify the cells and cellular components with a high degree of specificity. This is an optical microscope based on the phenomena of fluorescence and phosphorescence in addition to reflection and absorption. Two light sources, Halogen and Mercury lamps help us to image over a wide range of wavelength. Both transparent and opaque samples can be analyzed with the help of microscope. It is also equipped with different type of filters, such as DAPI, FITC, TEXAS Red, which are used in imaging Nucleus, Cytoskeleton and Mitochondrion, respectively.



Fluorescent Microscope





Fluorescent microscope image showing the cytoskeleton of L929 fibroblast cell



Fluorescent microscope image showing the nucleus of L929 fibroblast cell

With the help of attached software, both qualitative and quantitative analysis is possible. Live imaging is also possible with the attached CCD camera.

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