

ABSTRACT

LASER LINE ILLUMINATOR FOR HIGH THROUGHPUT SEQUENCING

Imaging systems including an objective lens and a line generation module are described herein. The objective lens may focus a first light beam emitted by the line generation module and a second light beam emitted by the line generation module at a focal point external to a sample so as to adjust line width. Line width may be increased to lower overall power density of a light beam on a surface of the sample such that the power density of the light beam on the surface of the sample is below a photosaturation threshold of a dye on the sample.

[Figure 1A]