

ABSTRACT

SYSTEMS AND METHODS FOR IMPROVED FOCUS TRACKING USING A HYBRID MODE LIGHT

SOURCE

Systems and methods disclosed herein include an imaging system that may include a laser diode source; an objective lens positioned to direct a focus tracking beam from the light source onto a location in a sample container and to receive the focus tracking beam reflected from the sample; and an image sensor that may include a plurality of pixel locations to receive focus tracking beam that is reflected off of the location in the sample container, where the reflected focus tracking beam may create a spot on the image sensor. Some examples may further include a laser diode light source that may be operated at a power level that is above a power level for operation at an Amplified Spontaneous Emission (“ASE”) mode, but below a power level for single mode operation.

[Figure 1]