

Question

CLIN 0012

“Variable numerical aperture” Can you give me more info on this requested option? We have more than one item that will fit the description noted.

Answer

The numerical aperture (NA) of an objective defines the angle over which light can be collected. Generally, higher NA's are desirable because they collect more efficiently and attain higher spatial resolution. However, in some situations, a researcher may want to intentionally reduce the NA of the system in order to block non-normal or high angle scattered light. One method to do this is to use an objective that has an adjustable iris built into it. Partially closing this adjustable iris reduces the effective NA of the objective and consequently, reduces the collection angle. Some objectives specifically designed for transmitted light fluorescence and darkfield imaging are equipped with an internal iris diaphragm that allows for adjustment of the effective numerical aperture.