Zeiss Axioscope.A1

Objective Properties

Objective	NA	WD (mm)	*Resolution (µm) Episcopic	*Resolution (µm) Diascopic	Depth of Field (mm)	Brightness	Pixel Size (µm/pixel)
5x A-Plan	0.12	10.1	2.54	2.54	69.4	0.1	2.040
10x A-Plan	0.25	4.5	1.22	1.22	16.0	0.4	1.020
20x ECPlan-Neofluar	0.50	2.0	0.60	0.61	4.0	1.6	0.510
40x ECPlan-Neofluar	0.75	0.7	0.41	0.41	1.8	2.0	0.255
63x ECPlan-Neofluar	1.25	0.1	0.24	0.28	1.0	6.2	0.163

NA (numerical aperture): affects nearly everything about your image; report this along with the magnification when you publish
WD (working distance): how deep you can image; e.g. to image all the way through a 0.2 mm object, you need a WD > 0.2
Resolution*: sizes smaller than this cannot be measured; objects closer than this distance cannot be distinguished
Episcopic = for fluorescence; **Diascopic** = for transmitted light (brightfield, DIC, phase contrast)
Depth of Field: the thickness of the sample that appears in focus at the same time
Brightness: relative measure of how much light is collected by the objective (for fluorescence only)
Pixel size: the size of each pixel in microns; assumes no camera binning or additional magnifying lenses

Fluorescence Filter Properties

Fluor. Filter Set	"color"	Ex. (nm)	Em. (nm)	Example Fluorophores
DAPI	blue	340-370	420-470	DAPI, Hoechst
GFP	green	450-490	500-550	Fluorescein, GFP, Alexa Fluor 488
Cy3	red	530-555	575-645	Rhodamine, propidium iodide, Alexa Fluor 546, Cy3