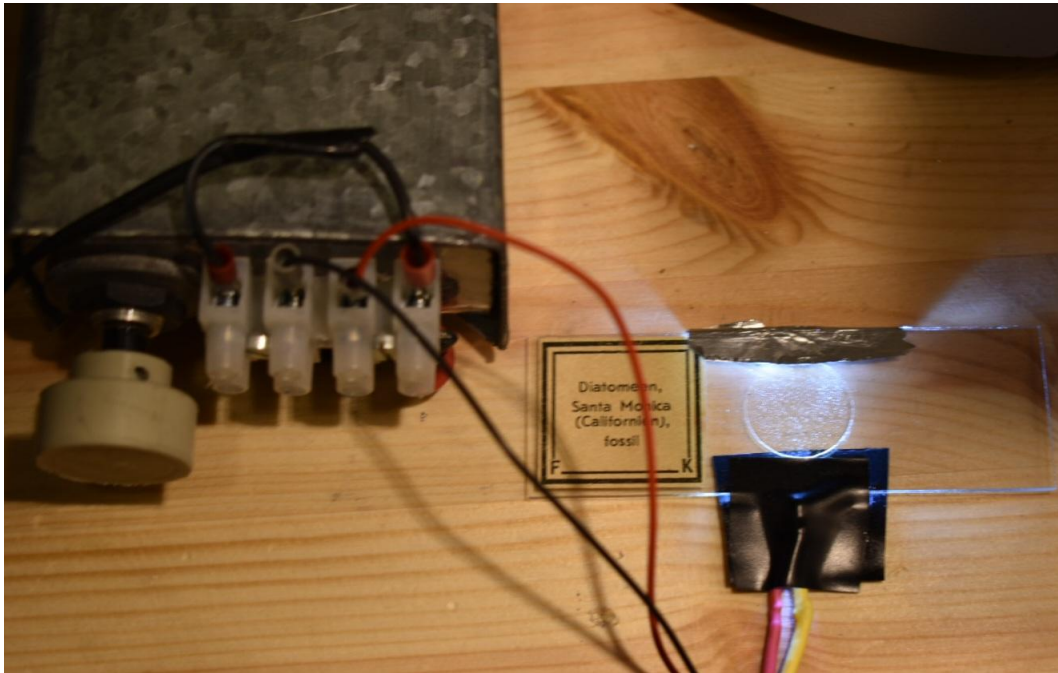


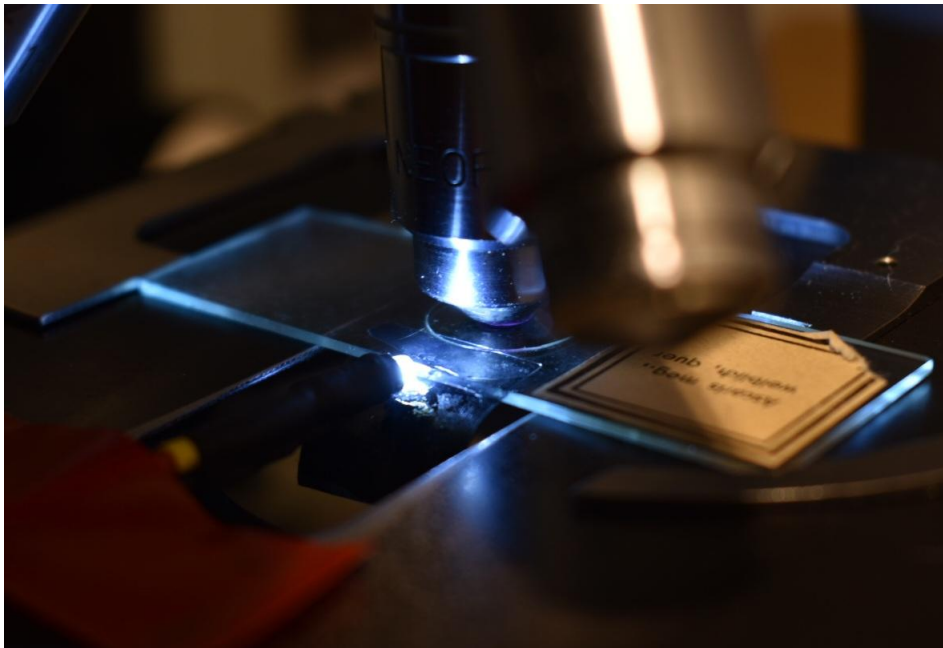
Poor Man's Darkfield aka Side LED Darkfield

I devised an unintentional darkfield setup with a standard scope as I had an idea to move the LED beside the slide.



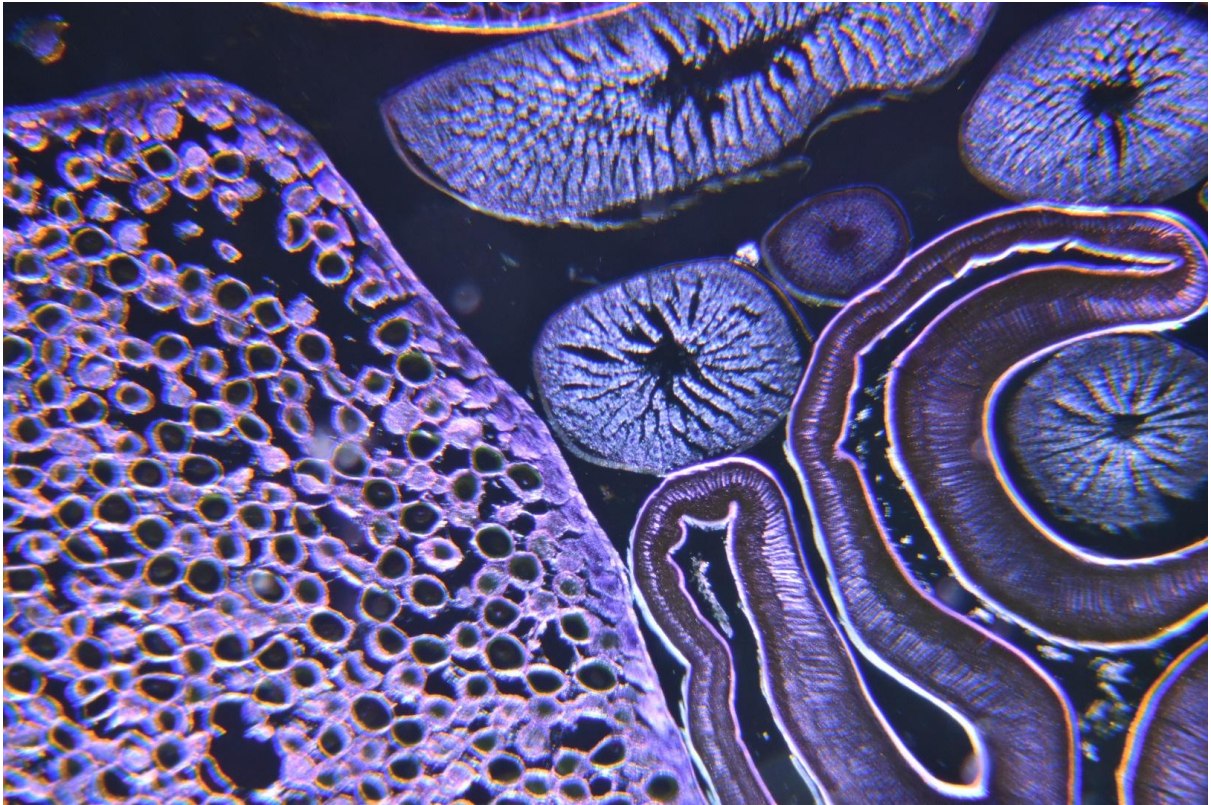
The LED is taped on the side, on the other side is a piece of aluminum foil (which doesn't make a big effect, but foil underneath of the slide weakens contrast).

After some experimenting, a 3 mm diam. LED (cold white, about 300mW) with a flat head (using 600 grit sandpaper and polished) with oil seems strongest.



Zeiss Standard with the very DIY side LED Darkfield.

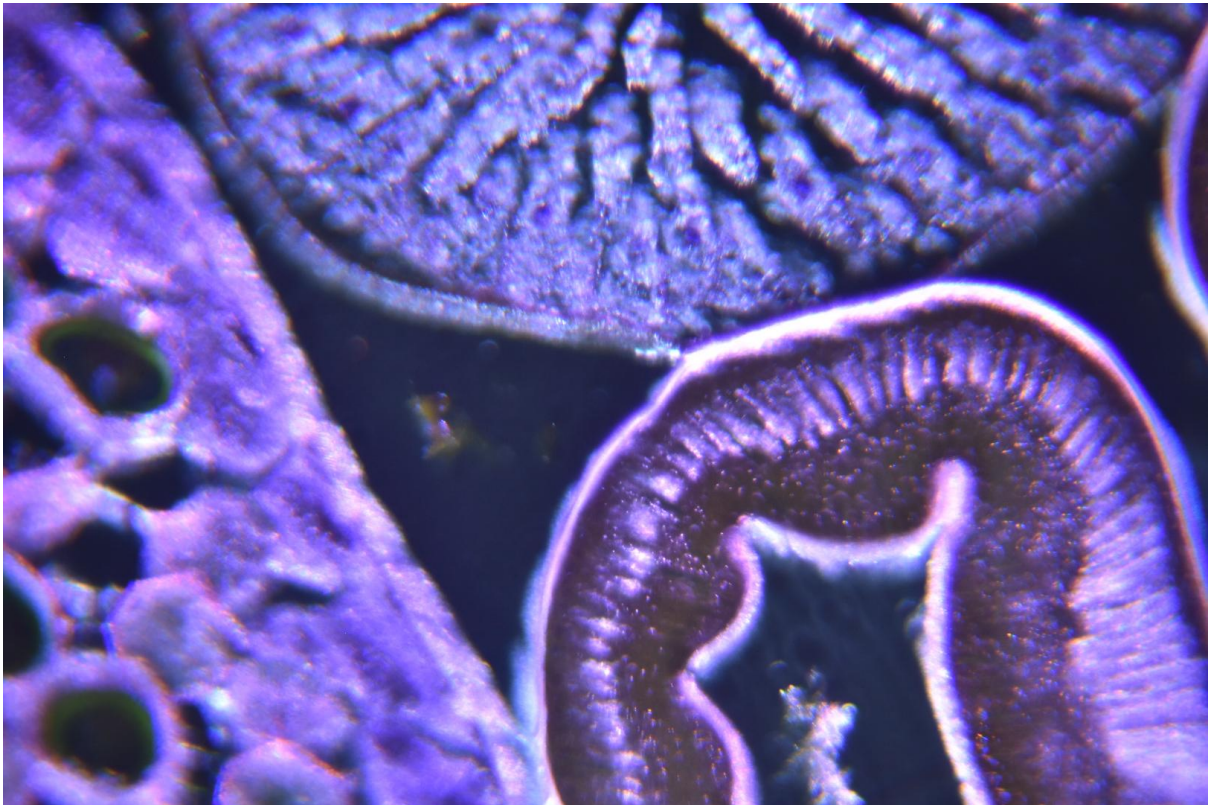
Here are some pictures of an Ascaris cross section (slide by Felix Kunze). I have not used photo stacking, so only part of the picture is in the focus and the size of the picture is limited to 2 Mpixels.



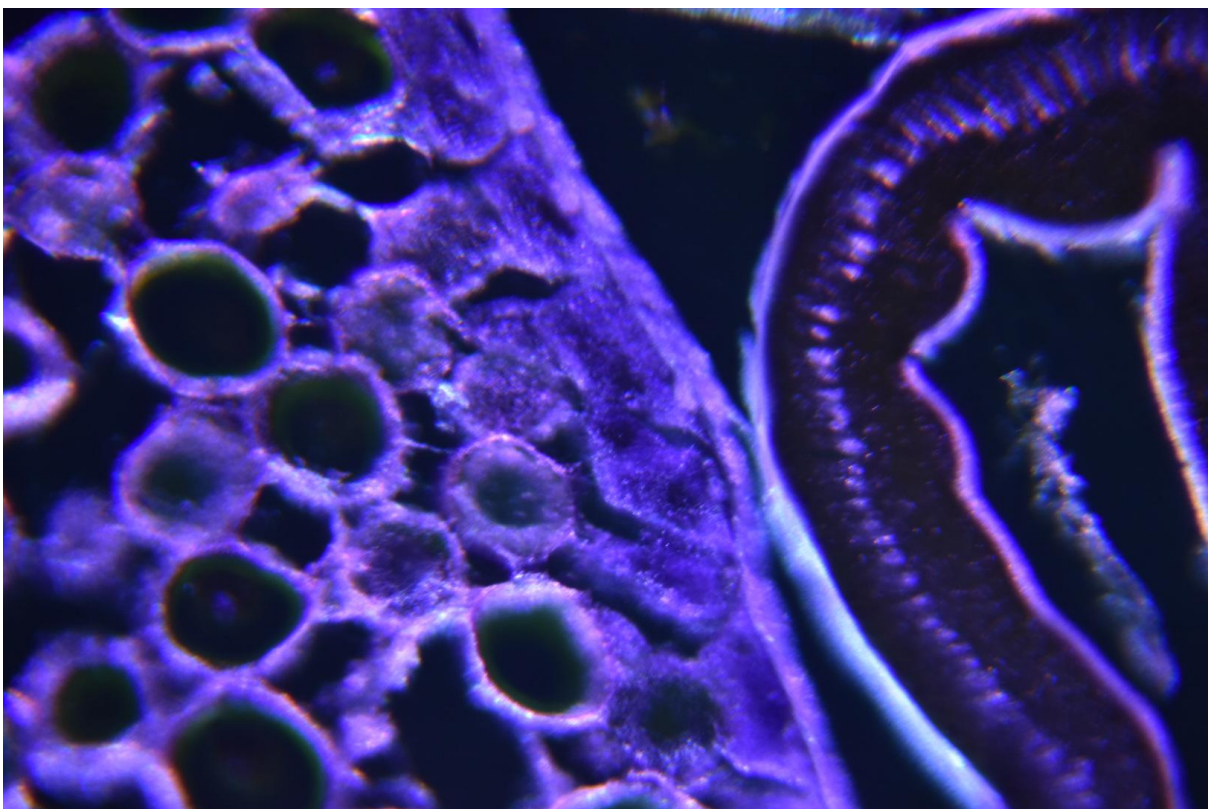
Plan 10X darkfield (1/13th sec with ISO 640 Nikon D5600, 300 mW flathead side LED with oil)



Plan 10X brightfield (1/1600th ISO 200, 1W LED thru' Z/II condenser)



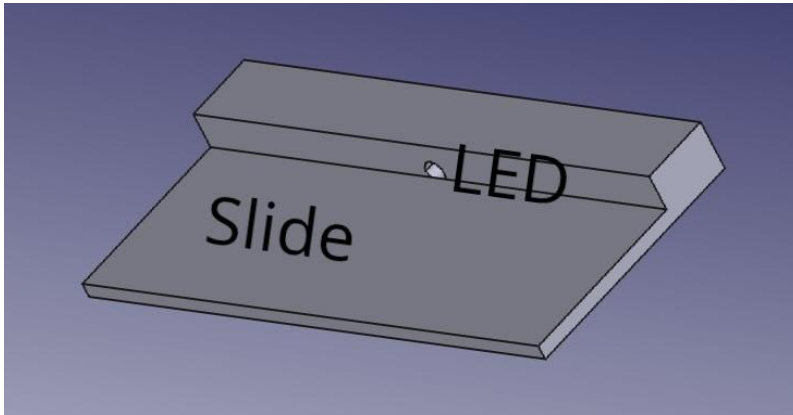
Neofluar 16X Ph2 (1/8th sec. ISO 640)



Neofluar 40X (1/8th sec ISO 640)

You can start a test with some LEDs, light travels quite well from an unmodified LED pointed even along the small side of the slide. Photography needs more tune up.

If I will make the product from the idea, it may look like this:



Pictures, text and the idea: Creative Commons 4.0 NA, CC, CA & BY pg Jan 2025
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