Materials List for:

Implementation of Interference Reflection Microscopy for Label-free, High-speed Imaging of Microtubules

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Materials

Name	Company	Catalog Number	Comments
Microscope	Nikon	Ti-Eclipse	An inverted microscope used for perfoming the expriments
50/50 beam splitter	Chroma	21000	When buying make sure to choose the splitter dimensions that fit the cube used in the microscope
NIKON PLAN FLUOR 100X/0.5-1.3 Iris objective	Nikon	MRH02902	Imaging objective. This objective has a NA adjusting iris that was opened to NA 1.3
Mucasol universal detergent	Sigma-aAldrich	Z637181-2L	Used for cleaning coverslips and slides
plastic paraffin film (commerical name Parafilm M)	Sigma-aAldrich	P7793	Used for constructing flow channels
Anti-TAMRA antibody	Invitrogen	A-6397	Used to bind TAMRA labeled molecules (e.g. microtubules) to the sample surface. RRID (AB_2536196)
Poloxamer 407 (commercial name Pluronic F-127)	Sigma-aAldrich		Used for blocking the channel surface to prevent nonspecific binding
40 nm gold nanoparticles	Sigma-aAldrich	753637	Used as a control sample
20 nm gold nanoparticles	Sigma-aAldrich	753610	Used as a control sample
Zyla 4.2 Camera	Andor	Zyla 4.2	2048x2048 pixles (6.5µm pixel size) with quantum efficiency of 72% and 16bit dynamic range
Feista tracking software			https://www.bcube-dresden.de/fiesta/wiki/FIESTA
Stabilized microtubles			prepared in house (see references in text)