

Materials List for:

Using Three-color Single-molecule FRET to Study the Correlation of Protein Interactions

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Materials

Name	Company	Catalog Number	Comments
Setup			
vibration-damped optical table	Newport, Irvine, CA, USA	RS2000	
OBIS 473nm LX 75mW LASER	Coherent Inc, Santa Clara, CA, USA	1185052	
OBIS 532nm LS 50mW LASER	Coherent Inc, Santa Clara, CA, USA	1261779	
OBIS 594nm LS 60mW LASER	Coherent Inc, Santa Clara, CA, USA	1233470	
OBIS 637nm LX 140mW LASER	Coherent Inc, Santa Clara, CA, USA	1196625	
laser control unit	Coherent Inc, Santa Clara, CA, USA	1234465	Scientific Remote
aspheric telescope lenses	Thorlabs Inc, Newton, New Jersey, USA		d=25.4mm, f=50mm and f=100mm
CF ex1	AHF analysentechnik AG, Tübingen, Germany	ZET 473/10	cleanup filter excitation
CF ex2	AHF analysentechnik AG, Tübingen, Germany	ZET 532/10	cleanup filter excitation
CF ex3	AHF analysentechnik AG, Tübingen, Germany	ZET 594/10	cleanup filter excitation
CF ex4	Thorlabs Inc, Newton, New Jersey, USA	FL635-10	cleanup filter excitation
DM ex1	AHF analysentechnik AG, Tübingen, Germany	ZQ594RDC	dichroic mirror excitation
DM ex2	AHF analysentechnik AG, Tübingen, Germany	570DCXR	dichroic mirror excitation
DM ex3	AHF analysentechnik AG, Tübingen, Germany	ZQ491RDC	dichroic mirror excitation
AOTFnc-Vis	AA Opto-Electronic, Orsay, France		
$\lambda/4$ plate	Thorlabs Inc, Newton, New Jersey, USA	AQWP05M-600	
CFI Apo TIRF 100x	Nikon Instruments Inc, Melville, NY, USA		high-NA objective
piezo focus positioner MIPOS 250 CAP	piezosystem jena GmbH, Jena, Germany		Piezo Controller NV 40/1 CLE
piezo stepper	Newport, Irvine, CA, USA	PZA12	PZC200-KT NanoPZ Actuator Kit
achromatic aspheric lenses	Qioptiq Photonics GmbH & Co. KG, Göttingen, Germany	G322-304-000	d=50mm, f=200mm

adjustable optical slit	Owis GmbH, Staufen i. Br., Germany	27.160.1212	max. aperture 12 x 12 mm
DM det1	AHF analysentechnik AG, Tübingen, Germany	T 600 LPXR	dichroic mirror detection
DM det2	AHF analysentechnik AG, Tübingen, Germany	H 560 LPXR superflat	dichroic mirror detection
DM det3	AHF analysentechnik AG, Tübingen, Germany	HC BS R635	dichroic mirror detection
BP det1	AHF analysentechnik AG, Tübingen, Germany	525/40 BrightLine HC	bandpass filter detection
BP det2	AHF analysentechnik AG, Tübingen, Germany	586/20 BrightLine HC	bandpass filter detection
BP det3	AHF analysentechnik AG, Tübingen, Germany	631/36 BrightLine HC	bandpass filter detection
BP det4	AHF analysentechnik AG, Tübingen, Germany	700/75 ET Bandpass	bandpass filter detection
optical shutters detection	Vincent Associates, Rochester, NY, USA	Uniblitz VS25S2T0	
EMCCD iXon Ultra 897	Andor Technology Ltd, Belfast, Northern Ireland		
digital I/O card, PCIe-6535	National Instruments, Austin, Texas, USA		
syringe pump	Harvard Apparatus, Holliston, MA, USA	PHD22/2000	
Name	Company	Catalog Number	Comments
Flow chamber			
quartz slides	G. Finkenbeiner Inc, Waltham, MA, USA		Spectrosil2000, h=3mm
TEGADERM film	3M Deutschland GmbH, Neuss, Germany	1626W	10 x 12cm
spray adhesive	3M Deutschland GmbH, Neuss, Germany	Photo Mount 050777	
glycerol	Carl Zeiss AG, Oberkochen, Germany	Immorsol G	
immersion oil	OLYMPUS EUROPA SE & CO. KG, Hamburg, Germany	IMMOIL-F30CC	
prism	Vogelsberger Quarzglasstechnik GmbH, Hauzenberg, Germany		Suprasil1
aluminium prism holder			custom built
hollow setscrews	Thorlabs Inc, Newton, New Jersey, USA		with custom drilling
Tygon S3 E-3603 tubing	neoLab Migge GmbH, Heidelberg, Germany	2-4450	ACF00001
PTFE tubing	Bohlender GmbH, Grünsfeld, Germany	S1810-08	
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Sample			
yeast Hsp90 D61C, Q385C_biotin			UniProt ID P02829
Maleimide derivatives of Atto488, Atto550	ATTO-TEC GmbH, Siegen, Germany		
AMP-PNP*	Jena Bioscience, Jena, Germany		γ -[(6-Aminohexyl)-imido]-AMP-PNP-Atto647N
Fluospheres	Thermo Fisher Scientific, Waltham, MA, USA	F8764	amine-modified, 0.2 μ m, yellow-green fluorescent

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Software			
Andor Solis	Andor Technology Ltd, Belfast, Northern Ireland		version 4.30
LabVIEW	National Instruments, Austin, Texas, USA		version 2012, 32bit; misc. hardware control
MDS control software	AA Opto-Electronic, Orsay, France		version 2.03a
Coherent Connection	Coherent Inc, Santa Clara, CA, USA		version 3
Igor Pro	WaveMetrics Inc, Portland, OR, USA		version 6.37