

Materials List for:

Novel Techniques for Observing Structural Dynamics of Photoresponsive Liquid Crystals

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Materials

Name	Company	Catalog Number	Comments
Chirped pulse amplifier	Spectra Physics Inc.	Spitfire ACE	For time-resolved IR vibration spectroscopy
Chirped pulse amplifier	Spectra Physics Inc.	Spitfire XP	For time-resolved electron diffractometry
Femtosecond laser	Spectra Physics Inc.	Tsunami	For time-resolved IR vibration spectroscopy
Femtosecond laser	Spectra Physics Inc.	Tsunami	For time-resolved electron diffractometry
Optical parametric amplifier	Light Conversion Ltd.	TOPAS prime	
64-channel mercury cadmium tellurium IR detector array	Infrared Systems Development Corporation	FPAS-6416-D	
FT-IR spectrometer	Shimadzu Corporation	IR Prestige-21	
High voltage supply	Matsusada precision	HER-100N0.1	
Rotary pump	Edwards	RV12	
Molecular turbo pumps	Agilent Technologies Japan, Ltd.	Twis Torr 304FS	
Vacuum gauges	Pfeiffer vacuum systems gmbh	PKR251	For ICF70 flange
Vacuum monitors	Pfeiffer vacuum systems gmbh	TPG261	
Fiber coupled CCD camera	Andor Technology Ltd.	iKon-L HF	
BaF2 and CaF2 substrates	Pier optics		Thickness 3 mm
AgGaS2 crystal	Phototechnica Corporation		Custom-order
BBO crystals	Tokyo Instruments, Inc.		SHG $\theta=29.2$ deg THG $\theta=44.3$ deg
calcite crystals	Tokyo Instruments, Inc.		Thickness 1mm
Optical mirrors	Thorlabs	PF10-03-F01 PF10-03-M01 UM10-45A	Al coat mirrors Au coat mirrors Ultrafast mirrors
Optical mirrors	HIKARI, Inc.		Broadband mirrors
Dichroic mirrors	HIKARI, Inc.		Custom-order Reflection: 266 nm Transmission: 400, 800 nm
Optical chopper	Newport Corporation	3501 optical chopper	
Optical shutters	Thorlabs Inc.	SH05/M SC10	
Optical shutters	SURUGA SEIKI CO., LTD.	F116-1	
Beam splitters	Thorlabs Inc.	BSS11R	

Fused-silica lenses	Thorlabs Inc.	LA4663 LA4184	
BaF2 lens	Thorlabs Inc.	LA0606-E	
Polarized mirrors	Sigmatokoki Co.,Ltd		Custom-order Designed for 800 nm Reflection: s-polarized light Transmission : p-polarized light
Half waveplate	Thorlabs Inc.	WPH05M-808	
Mirror mounts	Thorlabs Inc.	POLARIS-K1 KM100	Kinematic mirror mounts
Mirror mounts	Sigmatokoki Co.,Ltd	MHAN-30M MHAN-30S	Gimbal mirror mounts
Mirror mounts	Newport Corporation	ACG-3K-NL	Gimbal mirror mounts
Variable ND filters	Thorlabs Inc.	NDC-25C-2M	
Beam splitter mounts	Thorlabs Inc.	KM100S	
Lens mounts	Thorlabs Inc.	LMR1/M	
Rotational mounts	Thorlabs Inc.	RSP1/M	
Retroreflector	Edmund Optics	63.5MM X 30" EN-AL	
spectrometers	ocean photonics	USB-4000	
Power meter	Ophir	30A-SH	Used for intensity monitor of CPA
Power meter	Thorlabs Inc.	S120VC PM100USB	Used for intensity measurements of pump pulse
Photodiodes	Thorlabs Inc.	DET36A/M DET25K/M	
DC power supply	TEXIO	PW18-1.8AQ	Used for magnetic lens
Magnetic lens	Nissei ETC Co.,Ltd		Custom-order
Stages	Newport Corporation	M-MVN80V6 LTAHLPPV6	Used for magnetic lens
Stage controller	Newport Corporation	SMC100	
Stages	Sigmatokoki Co.,Ltd	SGSP20-35(X) SGSP20-85(X)	Used for sample position
Stages	Sigmatokoki Co.,Ltd	SGSP26-200(X) OSMS26-300(X)	Used for delay time generator
Stage controller	Sigmatokoki Co.,Ltd	SHOT-304GS	
Picoammeter			Laboratory built
spin coater	MIKASA Co.,Ltd	1H-D7	
hot plate	IKA®	C-MAG HP7	
SiN wafer	Silson Ltd		Custom-order
KOH aqueous solution (50%)	Hiroshima Wako Co.,Ltd.	168-20455	
Chloroform	Hiroshima Wako Co.,Ltd.	038-18495	
Dichloromethane	Hiroshima Wako Co.,Ltd.	132-02456	
Personal computers for the controlling programs	Epson Corporate	Endeavor MR7300E-L	32-bit operation system
Program for the control the equipment	National Instruments Corporation	Labview2016	
Program for the data analysis	The MathWorks, Inc.	Matlab2015b	