

Materials List for:

Submillisecond Conformational Changes in Proteins Resolved by Photothermal Beam Deflection

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Materials

Name	Company	Catalog Number	Comments
1-(4,5-Dimethoxy-2-Nitrophenyl)-1,2-Diaminoethane- <i>N,N,N',N'</i> -Tetraacetic Acid	Life Technologies	D-6814	DM-nitrophen, cage calcium compound, keep stock solutions in dark to prevent photodissociation
4-(2-Hydroxyethyl)piperazine-1-ethanesulfonic acid, <i>N</i> -(2-Hydroxyethyl)piperazine- <i>N'</i> -(2-ethanesulfonic acid)	Sigma Aldrich	0909C	HEPES buffer
Potassium ferricyanide (III)	Sigma Aldrich	702587	reference compound for PBD measurements
Sodium chromate	Sigma Aldrich	307831	reference compound for PBD measurements
He-Ne Laser Diode 5 mW 635 nm	Edmund Optics	54-179	use as a probe beam for PBD measurements
Oscilloscope,	LeCroy	Wave Surfer 42Xs	400 MHz bandwidth
Nd:YAG laser	Continuum	ML II	pump beam for PBD measurements
M ₃₅₅ ; Nd:YAG laser mirror	Edmund Optics	47-324	laser mirror for 355 nm laser line
M ₁ and M ₂ ; Laser diode mirror	Edmund Optics	43-532	visilbe laser flat mirror, wavelength range 300-700 nm
P ₁ and P ₂ ; Iris Diaphragm	Edmund Optics	62-649	pin hole to shape the probe and pum beams
L ₁ ; bi-convex lens	Thorlabs	LB1844	a lens to focus the probe beam at the detector, EFL 50 mm, wavelength range 350-2,000 nm
DM, dichroic mirror	Thorlabs	DMLP505	a longpass dichroic mirror with a cutoff wavelength of 505 nm
F ₁ ; Edge filter	Andover	500FH90-25	a long pass filter with a cutoff wavelength of 500 nm
Temperature-controlled cuvette holder	Quantum Northwest	FLASH 300	