

Materials List for:

Determination of Photoreceptor Cell Spectral Sensitivity in an Insect Model from *In Vivo* Intracellular Recordings

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URL: <https://www.jove.com/video/53829>

DOI: [doi:10.3791/53829](https://doi.org/10.3791/53829)

Materials

| Name | Company | Catalog Number | Comments |
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| Butterfly pupae | | | Several local species available, need USDA permits for shipping. Carolina Bio Supply has several insect species that may be ordered within the U.S. without the need for additional permits |
| Large plastic cylinder | | | Any chamber that remains humidified will work |
| Insect pins, size 2 | BioQuip | 1208B2 | |
| 100% Desert Mesquite Honey | Trader Joe's | | Any honey or sucrose solution will work |
| Xenon Arc Lamp | Oriel Instruments | 66003 | Oriel is now a part of Newport Corporation |
| Universal Power Supply | Oriel Instruments | 68805 | Oriel is now a part of Newport Corporation |
| Optical Track | Oriel Instruments | 11190 | Oriel is now a part of Newport Corporation |
| Rail Carrier, Large (2x) | Oriel Instruments | 11641 | Oriel is now a part of Newport Corporation |
| Rail Carrier, Small (4x) | Oriel Instruments | 11647 | Oriel is now a part of Newport Corporation |
| Thread Adaptor, 8-32 Male to 1/4-20 Male, pack of 10 | Newport Corporation | TA-8Q20-10 | |
| Optical Mounting Post, 1.0 in., 0.5 in. Dia. Stainless, 8-32 & 1/4-20 (5x) | Newport Corporation | SP-1 | |
| No Slip Optical Post Holder, 2 in., 0.5 in. Diameter Posts, 1/4-20 (5x) | Newport Corporation | VPH-2 | |
| Fixed lens mount, 50.8 mm | Newport Corporation | LH-2 | |
| Fixed lens mount, 25.4 mm | Newport Corporation | LH-1 | |
| Condenser lens assembly | Newport Corporation | 60006 | |
| Convex silica lens, 50.8 mm | Newport Corporation | SPX055 | |
| Six Position Filter Wheel, x2 | Newport Corporation | FW1X6 | |
| Filter Wheel Mount Hub | Newport Corporation | FWM | |
| Concave silica lens, 25.4 mm | Newport Corporation | SPC034 | |
| Collimator holder | Newport Corporation | 77612 | |
| Collimating beam probe | Newport Corporation | 77644 | |

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| Ferrule Converter, SMA Termination to 11 mm Standard Ferrule | Newport Corporation | 77670 | This adapter allows the fiber optic to fit into the collimator holder |
| 600 μ m diameter UV-vis fiber optic cable | Oriel Instruments | 78367 | Oriel is now a part of Newport Corporation |
| Shutter with drive unit | Uniblitz | 100-2B | |
| UV Fused Silica Metallic ND Filter, 0.1 OD | Newport | FRQ-ND01 | |
| UV Fused Silica Metallic ND Filter, 0.3 OD | Newport | FRQ-ND03 | |
| UV Fused Silica Metallic ND Filter, 0.5 OD | Newport | FRQ-ND05 | |
| UV Fused Silica Metallic ND Filter, 1.0 OD | Newport | FRQ-ND10 | |
| UV Fused Silica Metallic ND Filter, 2.0 OD | Newport | FRQ-ND30 | |
| UV Fused Silica Metallic ND Filter, 3.0 OD | Newport | FRQ-ND50 | |
| LS-1-Cal lamp | Ocean Optics | LS-1-Cal | |
| Spectrometer | Ocean Optics | USB-2000 | |
| SpectraSuite Software | Ocean Optics | | |
| Interference bandpass filter, 300 nm | Edmund Optics | 67749 | |
| Interference bandpass filter, 310 nm | Edmund Optics | 67752 | |
| Interference bandpass filter, 320 nm | Edmund Optics | 67754 | |
| Interference bandpass filter, 330 nm | Edmund Optics | 67756 | |
| Interference bandpass filter, 340 nm | Edmund Optics | 65614 | |
| Interference bandpass filter, 350 nm | Edmund Optics | 67757 | |
| Interference bandpass filter, 360 nm | Edmund Optics | 67760 | |
| Interference bandpass filter, 370 nm | Edmund Optics | 67761 | |
| Interference bandpass filter, 380 nm | Edmund Optics | 67762 | |
| Interference bandpass filter, 390 nm | Edmund Optics | 67763 | |
| Interference bandpass filter, 400 nm | Edmund Optics | 65732 | |
| Interference bandpass filter, 410 nm | Edmund Optics | 65619 | |
| Interference bandpass filter, 420 nm | Edmund Optics | 65621 | |
| Interference bandpass filter, 430 nm | Edmund Optics | 65622 | |
| Interference bandpass filter, 440 nm | Edmund Optics | 67764 | |
| Interference bandpass filter, 450 nm | Edmund Optics | 65625 | |

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| Interference bandpass filter, 460 nm | Edmund Optics | 67765 | |
| Interference bandpass filter, 470 nm | Edmund Optics | 65629 | |
| Interference bandpass filter, 480 nm | Edmund Optics | 65630 | |
| Interference bandpass filter, 492 nm | Edmund Optics | 65633 | |
| Interference bandpass filter, 500 nm | Edmund Optics | 65634 | |
| Interference bandpass filter, 510 nm | Edmund Optics | 65637 | |
| Interference bandpass filter, 520 nm | Edmund Optics | 65639 | |
| Interference bandpass filter, 532 nm | Edmund Optics | 65640 | |
| Interference bandpass filter, 540 nm | Edmund Optics | 65642 | |
| Interference bandpass filter, 550 nm | Edmund Optics | 65644 | |
| Interference bandpass filter, 560 nm | Edmund Optics | 67766 | |
| Interference bandpass filter, 570 nm | Edmund Optics | 67767 | |
| Interference bandpass filter, 580 nm | Edmund Optics | 65646 | |
| Interference bandpass filter, 589 nm | Edmund Optics | 65647 | |
| Interference bandpass filter, 600 nm | Edmund Optics | 65648 | |
| Interference bandpass filter, 610 nm | Edmund Optics | 65649 | |
| Interference bandpass filter, 620 nm | Edmund Optics | 65650 | |
| Interference bandpass filter, 632 nm | Edmund Optics | 65651 | |
| Interference bandpass filter, 640 nm | Edmund Optics | 65653 | |
| Interference bandpass filter, 650 nm | Edmund Optics | 65655 | |
| Interference bandpass filter, 660 nm | Edmund Optics | 67769 | |
| Interference bandpass filter, 671 nm | Edmund Optics | 65657 | |
| Interference bandpass filter, 680 nm | Edmund Optics | 67770 | |
| Interference bandpass filter, 690 nm | Edmund Optics | 65659 | |
| Interference bandpass filter, 700 nm | Edmund Optics | 67771 | |
| Faraday cage | | | Any metal structure will work that can be grounded and that fits the experimental setup. |
| Stereomicroscope, 6X, 12X, 25X, 50X magnification | Wild Heerbrugg | Wild M5 | Any Stereomicroscope will do |

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| Microscope stand with swinging arm and heavy base | McBain Instruments | | Any heavy base with arm will do |
| Cardan arm | | | Custom built, See Figure 4 |
| Fiber-lite high intensity illuminator | Dolan-Jenner | MI-150 | For lighting specimen |
| Fiber-lite goose-neck light guide | Dolan-Jenner | EEG 2823 | Any goose-neck light guide will do |
| Marble table | | | |
| Raised wooden table | | | Hole should be cut through this table so that the sandbox can rest on the marble table underneath |
| Wooden box filled with sand | | | custom built, any box with sand |
| Manipulator | Carl Zeiss - Jena | | |
| Electrode holder | | | |
| Specimen stage | | | |
| Alligator clip wires for grounding | | | |
| Insulated copper wire | | | |
| Silver wire, 0.125 mm diameter | World Precision Instruments | AGW0510 | |
| BNC cables | | | |
| Preamplifier with headstage | Dagan Corporation | IX2-700 | |
| Humbug Noise reducer | Quest Scientific | Humbug | |
| Oscilloscope, 30 MHz, 2 CH, Dual Trace, Alt-triggering, without probe | EZ Digital | os-5030 | |
| BNC T-adapter | | | |
| Powerlab hardware 2/20 | ADI instruments | ML820 | |
| Labchart software | ADI instruments | Chart 5 | |
| 10 MHz Pulse Generator | BK Precision | 4030 | |
| Glass pipette puller | Sutter Instruments | P-87 | |
| Borosilicate glass capillaries with filament | World Precision Instruments | 1B120F-4 | |
| Potassium chloride, 3 M | | | |
| Slotted plastic tube | | | |
| Low melting temperature wax | | | |
| Soldering Iron | Weller | | |
| Platform with ball-and-socket magnetic base | Hama photo and video | | |
| Double edge carbon steel, breakable razor blade | Electron Microscopy Sciences | 72004 | |
| Vaseline | | | |
| Microsoft Excel | Microsoft | | |