

Materials List for:

# Large-scale Recording of Neurons by Movable Silicon Probes in Behaving Rodents

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## Materials

Name	Type	Company	Catalog Number	Comments
Silicon probe Buzsaki32, 4 shanks x 8 sites. Packaging: flexible polyamide cable	Material	NeuroNexus Technologies	Probe: buzaki32 Packaging: HC32	Recording probe
Round Brass Screw, 00-90 x 1/2 Round Brass Screws	Material	JIMorris	R0090B500	Drive part
Brass Hex Nut, 00-90	Material	JIMorris	N0090B	Drive part
Brass C260 Strip, ASTM-B36 Thickness: 0.025", Length: 12", Width: 1/2"	Material	Small Parts, Inc.	B000FMYU72	Drive part
Connector Header, pitch 2mm, male, single row, straight, 36 positions	Material	Digi-Key	2163S-36-ND	Drive part
2-part Sylgard silicon Elastomer	Material	World Precision Instruments, Inc.	SYLG184	To extra-insulate the probe
Decon Contrad 70 Liquid Detergent	Reagent	Fisher Scientific	04-355 Decon Laboratories No.:1002	To clean the recording sites
Impedance Conditioning Module	Equipment	FHC, Inc.	55-70-0	Impedance meter
niPOD - 32 channels	Equipment	NeuroNexus Technologies	niPOD -32	Impedance meter
Grip Cement Industrial Grade	Material	Caulk Dentsply	675571 (powder) 675572 (solvent)	Grip cement
1,1'-diocetadecyl-3,3,3',3'-tetramethylindocarbocyanine perchlorate ('DiI'; DiIC18(3))	Reagent	Invitrogen	D282	To stain the probe track in the brain
Stainless Steel Machine Screw, Binding Head, Slotted Drive, #00-90, 1/8"	Material	Small Parts, Inc.	MX-0090-02B	Ground and reference screws
Magnet wire, 20G, nylon-polyurethane coating, MW80	Material	Small Parts, Inc.	B000IJYRP2	Ground and reference wire
Stainless Steel Machine Screw, Binding Head	Material	Small Parts, Inc.	MX-000120-01B	Anchor screws

Slotted Drive, #000-120, 1/16"				
N-3 All purpose Flux Liquid	Reagent	La-Co (Markal)	23512	Allows to solder stainless-steel
MicroGrid Precision Expanded Copper	Material	Dexmet	3 CU6-050 FA	Copper mesh for on-head Faraday cage
C&B-METABOND Quick! Cement System - Dentin Activator	Material	Parkell	S380	
C&B-METABOND Quick! Cement System - Dental cement	Material	Parkell	S380	
Sharp point tungsten needle and holder	Tool	Roboz Surgical Instruments Co.	RS-6064 and RS-6061	To make the hook to lift the dura
Carbide Bur HP 1/4	Tool	Henry Schein	9990013	
Paraffin (Granules)	Material	Fisher Scientific	P31-500	
Mineral Oil, Light (NF/FCC)	Material	Fisher Scientific	O121-1	
GC ELECTRONICS 10-114 2-Part Epoxy Adhesive	Material	Newark Inc	00Z416	
Type 1 LITZ 21 AWG 40/36 Red Single Polyurethane-Nylon (MW80-C) TO 0.041"±0.002" OD	Material	New England Biolabs	N28-36E-400-2	To make the cable between the headstage and the amplifier
32-channel Very Large Scale Integration headstage, 20x gain	Equipment	Plexon	HST/32V-G20	Headstage