

Materials List for:

Examination of Rapid Dopamine Dynamics with Fast Scan Cyclic Voltammetry During Intra-oral Tastant Administration in Awake Rats

Robert J. Wickham¹, Jinwoo Park², Eric J. Nunes³, Nii A. Addy^{1,3,4}

¹Interdepartmental Neuroscience Program, Yale University

²Department of Biotechnical and Clinical Laboratory Sciences, School of Medicine and Biomedical Sciences, University at Buffalo

³Department of Psychiatry, Yale School of Medicine

⁴Department of Cellular and Molecular Physiology, Yale School of Medicine

Correspondence to: Nii A. Addy at nii.addy@yale.edu

URL: <https://www.jove.com/video/52468>

DOI: [doi:10.3791/52468](https://doi.org/10.3791/52468)

Materials

Name	Company	Catalog Number	Comments
Stimulating electrode	PlasticsOne	MS303/2-A/SPC	when ordering, request a 22 mm cut below pedestal
Cannula for electrode	BioAnalytical Systems	MD-2251	
Glass capillary	A-M systems	624503	
Carbon fiber	Thornel	T650	
Electrode puller	Narishige International	PE-22	
Neurolog stimulus isolator	 Digitimer Ltd.	DS4	
Heat shrink	3M	FP-301	
Insulated wires for electrodes	Squires electronics	Custom	L 3.000 x 1.000s x 1.000s UL1423 30/1 BLU
Micromanipulator	Univ. of Illinois at Chicago, Engineering Machine Shop		
Epoxy	ITW Devcon	14250	"5 minute epoxy"
Copolymer of perfluoro-3,6-dioxo-4-methyl-7-octene-sulfonic acid and tetrafluoroethylene	Ion Power	LQ-1105	<i>i.e.</i> , Nafion
Silver paint	GC Electronics	22-023	
Power supply	BK Precision	9110	
Tubing for intra-oral catheters	Intramedic	427426	PE 100, I.D. = 0.86 mm; O.D. = 1.52 mm
Tubing for intra-oral infusion	Fischer Scientific	02-587-1A	I.D. 1/32"; O.D. 3/32"
Syringe pump for flow cell	Pump Systems Inc.	NE 1000	
Surgical cement	Dentsply Caulk	675571 and 675572	
Air actuator	VICI	A60	6 position digital valve interface
Digital valve interface	VICI	DVI	230 VAC
Quad headstage	Univ. of N. Carolina, Electronics Facility		
UEI power supply	Univ. of N. Carolina, Electronics Facility		
UEI breakout box	Univ. of N. Carolina, Electronics Facility		
Power supply for tastant syringe pump	Med Associates	SG-504	
Tastant syringe pump	Med Associates	PHM-107	

Tungsten microelectrode	MicroProbes	WE30030.5A3	
Silver wire reference with AgCl	InVivo Metric	E255A	
Sucrose	Sigma	80497	
Magnesium chloride	Sigma	M8266	
Sodium chloride	Sigma	S7653	
Perchloric acid	Sigma	244252	
Hydrochloric acid (4 M)	Sigma	54435	
Sodium hydroxide	Sigma	306576	
Hydrogen peroxide	Sigma	H1009	
Dopamine hydrochloride	Sigma	H8502	
TarHeel HDCV Software	University of North Carolina-Chapel Hill		Must request software: click here for link to software request page