

Materials List for:

Simultaneous Recordings of Cortical Local Field Potentials and Electrocorticograms in Response to Nociceptive Laser Stimuli from Freely Moving Rats

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Materials

Name	Company	Catalog Number	Comments
Male Sprague-Dawley rats	Vital River		
Isoflurane	RWD Life Science		
Small animal isoflurane anaesthetic system	RWD Life Science		Including the anesthesia gas mask for rats
Stereotaxic apparatus	RWD Life Science		
The apparatus with combined ECoG and LFP electrodes			The apparatus is home-made, which assembles the ECoG and depth wire electrodes to a connector module
3D-printed protective shell			The texture of shell is polylactic, and the shell is home-made and contains three parts: a base, a wall and a cap. The wall is covered by copper tapers to construct as a Faraday cage
Tungsten wires (diameter: 50 mm)	California Fine Wires Company		The electrodes for cortical LFP recording
Stainless steel screws (diameter: 0.6 mm)			The electrodes for ECoG recording
Electric cranial drill	RWD Life Science		
Drill bit (diameter: 0.5 mm)	RWD Life Science		The drill is used for drilling the holes of ECoG screws
Drill bit (diameter: 0.2 mm)	RWD Life Science		The drill is used for drilling the holes of depth wires
Dental acrylic powder	SNC dental		
Dental acrylic liquid	SNC dental		
Paraffin	Fisher Scientific		The mixture is used for seal the craniotomy to ensure the following movement of micro-wire arrays
Mineral Oil	Fisher Scientific		
Electrocoagulator	Bovie medical Corporation		
RHD2132 Amplifier Boards	Intan Technologies		A 32-channel headstage
RHD2000 system	Intan Technologies		The data acquisition system

Infrared neodymium yttrium aluminum perovskite (Nd:YAP) laser generator	Electronical Engineering		
Matlab R2016b	The MathWorks		