

Intracellular Electrophysiology (icephys) BIDS BEP032 Dataset

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```

samples.tsv

Samples Table

sample_id	participant_id	sample_type	pathology	origin	thickness
cell001	sub-20230615A	tissue	none	RegionA	300um
cell002	sub-20230615A	tissue	none	RegionA	300um
cell003	sub-20230615A	tissue	none	RegionB	350um

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*_probes.tsv

Probes Table (pipette)

probe_name	type	AP	ML	DV	AP_angle	ML_angle	hemisphere	manufacturer	electrode_count
pipette01	patch-pipette	-1.8	0.5	-2.2	30	0	L	Sutter	
pipette02	patch-pipette	-1.8	-0.5	-2.2	30	0	R	Sutter	
pipette03	sharp-electrode	-3.2	1.2	-3.8	20	5	L	WPI	

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*_electrodes.tsv

Electrodes Table

name	probe_name	hemisphere	x	y	z	impedance	pipette_solution	material
patch01	pipette01	L	0	0	0	5.2	K-gluconate	borosilicate-glass
patch02	pipette02	R	0	0	0	4.8	K-gluconate	borosilicate-glass
sharp01	pipette03	L	0	0	0	80	3M KCl	borosilicate-glass

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*_channels.tsv

Channels Table

name	type	units	sampling_frequency	recording_mode	gain	ground	status
patch01	VM	mV	20000	current-clamp	10	AgCl	good
patch02	VM	mV	20000	current-clamp	10	AgCl	good
sharp01	IM	pA	20000	voltage-clamp	5	AgCl	good

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samples.json

Samples Metadata Sidecar

```
{
  "type": {
    "Description": "Sample type",
    "Levels": {
      "tissue": "Brain tissue slice"
    }
  },
  "pathology": {
    "Description": "Pathological state",
    "Levels": {
      "none": "No pathology"
    }
  }
}
```

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*_icephys.json

Recording Metadata Sidecar

```
{
  "InstitutionName": "Example Institute",
  "PowerLineFrequency": 60,
  "Manufacturer": "PatchClampManufacturer",
  "ManufacturersModelName": "Amplifier-ABC",
  "SamplingFrequency": 20000,
  "SoftwareName": "PatchSoftWare",
  "SoftwareVersions": "2.1.0",
  "SoftwareFilters": {
    "BesselFilter": {"Half-amplitude cutoff (Hz)": 10000}
  },
  "BodyPart": "BRAIN",
  "BodyPartDetails": "Visual Cortex",
  "SampleEnvironment": "ex-vivo",
  "SliceThickness": 300,
  "TaskName": "MembraneProperties",
  "TaskDescription": "Characterization of intrinsic properties"
}
```

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