

Data for wing size and excised wing voltage threshold

Length		Width		Excised wing
Male	Female	Male	Female	Male
1.37	1.63	0.93	1.07	0.8
1.43	1.42	1	0.95	0.7
1.3	1.4	0.87	0.92	0.6
1.37	1.51	0.94	1.01	0.8
1.11	1.34	0.78	0.9	0.5
1.21	1.5	0.83	0.98	0.9
1.33	1.5	0.92	0.99	0.5
1.23	1.62	0.86	1.08	0.7

Data for Figure 2, avoidance response indices

male			5 min	female	
0.0kV	0.0kV	0.0kV		0.0kV	0.0kV
Uncharge	Charge	Charge	RI value	Uncharge	Charge
7	8	8	-0.07	7	7
8	7	7	0.07	6	4
11	4	4	0.47	5	5
5	12	12	-0.41	8	7
3	5	5	-0.25	4	7
9	2	2	0.64	3	11
Mean			0.07		
SEM			0.17		
male			5 min	female	
0.37kV	0.37kV	0.37kV		0.37kV	0.37kV
Uncharge	Charge	Charge		Uncharge	Charge
11	4	4	0.47	11	5
7	10	10	-0.18	8	7
9	6	6	0.20	9	6
4	10	10	-0.43	5	8
6	9	9	-0.20	5	12
9	6	6	0.20	10	4
Mean			0.01		
SEM			0.14		
male			5 min	female	
0.5kV	0.5kV	0.5kV		0.5kV	0.5kV
Uncharge	Charge	Charge		Uncharge	Charge
10	6	6	0.25	10	7
10	5	5	0.33	11	8
8	8	8	0.00	7	8
9	6	6	0.20	10	5

11	6	0.29	6	8
7	4	0.27	8	5
		0.23		
		0.05		
male	1kV	5 min	female	1kV
7	1	0.75	11	4
7	2	0.56	10	4
7	2	0.56	9	1
8	1	0.78	12	4
9	3	0.50	10	4
10	4	0.43	9	3
		0.59		
		0.06		
male	1.5 kV	5 min	female	1.5kV
7	1	0.75	10	2
9	1	0.80	14	4
6	2	0.50	13	4
10	4	0.43	9	2
8	3	0.45	13	4
10	3	0.54	14	4
		0.58		
		0.06		
male	2kV	5 min	female	2kV
10	3	0.54	10	1
11	3	0.57	12	3
7	3	0.40	11	3
7	4	0.27	10	2
9	2	0.64	8	3
10	3	0.54	11	3
		0.49		
		0.05		

Data for wing raising in intact live and dead flies

0.5kV female Live 0.5kV 1kV 2kV 3kV 4kV 5kV

-22.67	-22.7	-20.8	-18.5	7.1	11.3	24.6
-27.6	-27.6	-27.6	-24.7	1.3	18.1	18.35
-29.8	-29.2	-28.5	-23.5	-12.4	9.5	26.7
-34.2	-32.3	-31.1	-30.1	-10.9	12.8	19.7
-35.8	-35.7	-33.7	-27.6	-17.3	8.9	13.3
-26.8	-26.8	-21.2	-15.8	-7.9	14.4	16.1
-20.6	-20.6	-18.5	-18.2	-10.5	14.2	14.2
-42	-42	-37.5	-37.5	-12.1	0.9	11.8

Data for Amine levels in the brain

4hr static EF group

Control (0kV/m)

5HT (C)	DA (C)	OA (C)
0.7919914	190.3584	23.93031
2.629817	232.8973	18.37624
1.294146	365.2107	30.16268
1.725628	279.519	65.23872
0.654905	139.8896	13.40591
0.9912207	162.8518	31.42636
0.6295068	156.8151	13.61334
0.7695954	120.2168	113.1426
1.499478	246.1277	46.06099
0.417167	91.25248	13.2421

Static Treatment (70kV/m)

5HT (S)	DA (S)	OA (S)
0.9109597	74.0043	602.0363
1.598099	67.12833	536.1805
0.9613234	49.80946	388.9438
0.5055968	49.58448	509.9812
0.8007491	47.58711	510.2641
1.696195	28.11425	325.1309
0.764128	53.66999	544.115
0.4304625	20.75035	242.2256
0.7661347	48.99151	552.0996

24hr static EF group

Control (0kV/m)

5HT (C)	DA (C)	OA (C)
0.5522456	99.02903	30.29544
0.8614392	161.4054	37.99327
0.6667703	162.82	49.12798
0.9983554	130.7315	41.41559
0.7336383	134.185	43.25636
0.8250269	130.372	54.92112
0.7193372	166.2941	62.85099
1.054319	148.4115	96.90075
0.7584042	157.8604	64.72617
0.8438239	135.9572	

Static treatment (70kV/m)

5HT (S)	DA (S)	OA (S)
0.2551081	74.94473	190.8234
0.1175575	72.05839	243.7636
0.1900142	65.34057	166.0696
0.1449384	70.21105	221.5057
0.1874093	59.72052	165.6538
0.0592918	45.53671	140.0349
0.2580115	50.05824	181.7974
0.1460871	67.39407	241.8133
0.1989989	71.08807	242.3628
	89.49638	279.5774

72hr static EF group

Control (0kV/m)

5HT (C)	DA (C)	OA (C)
0.6603087	337.275	14.8104
1.409617	267.1493	11.87827

Static Treatment (70kV/m)

5HT (S)	DA (S)	OA (S)
0.7661347	74.0043	602.0363
0.9109597	67.12833	536.1805

1.333189	386.676	23.49103	1.598099	49.80946	388.9438
1.40494	263.573	15.22146	0.9613234	49.58448	509.9812
0.5402099	367.4035	38.77203	0.5055968	47.58711	510.2641
0.4368935	340.0879	41.82849	0.8007491	28.11425	325.1309
1.536791	242.7993	34.62979	1.696195	53.66999	544.115
0.3943817	301.6231	48.03432	0.764128	20.75035	242.2256
0.4420714	197.6887	23.75521	0.4304625	48.99151	552.0996
0.7661359	230.7811	44.08208			

All data given as pmol/head

(threshold voltage to raise wing in kV)

Female

1.3
1.3
1.1
1.3
0.5
1.2
0.9
0.9

5 min

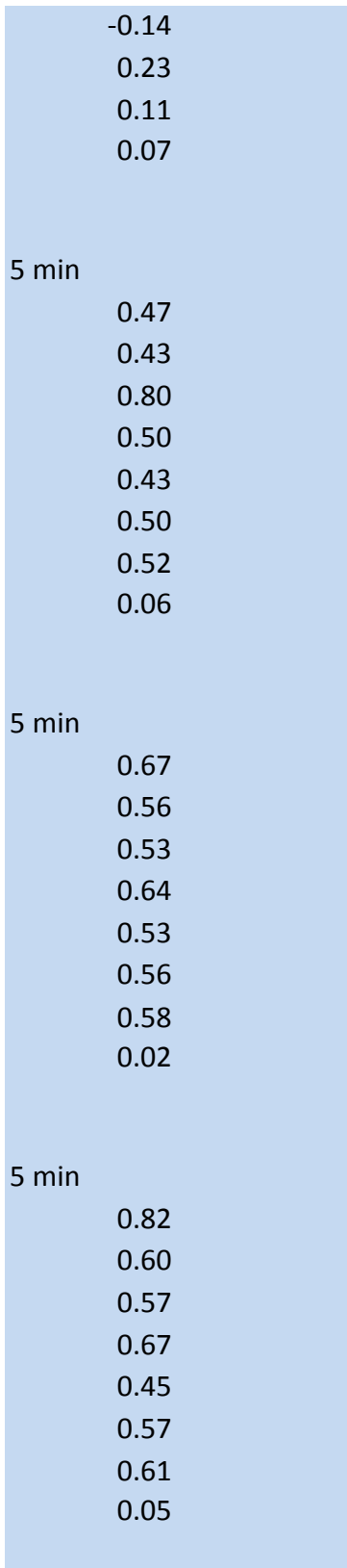
0.00
0.20
0.00
0.07
-0.27
-0.57
-0.10
0.11

5 min

0.38
0.07
0.20
-0.23
-0.41
0.43
0.07
0.14

5min

0.18
0.16
-0.07
0.33



0kV female de 0.5kv 1kv 2kv 3kv 4kv

-19.9	-17.8	-16.8	-16.6	18.5	25.9
-28.9	-28.9	-26.7	-20.6	-18.6	20.6
-36.8	-36.8	-35.7	-30.6	9.2	23.4
-24	-23.9	-20	-16.6	13.9	29.4
-30.2	-29.1	-29.1	-27.7	-23	5.2
-28.4	-28.2	-26.9	-24.4	-12.4	16.2
-30.3	-24.8	-24.8	-22.9	-10.9	21.9
-36.5	-35.5	32.9	-26.5	20.6	18.6

5kv

0kV live mal

0.5kv

1kv

2kv

3kv

38.9	-27.5	-26.1	-26	-24.2	5.3
28.9	-28.2	-25.4	-18.6	-18.4	-12.5
24.3	-26.9	-24.6	-23.2	-15.9	-6.6
28.8	-23.9	-23.7	-17.2	-15.3	2.7
19.6	-31.9	-31.9	-29.1	-28.5	0
38.8	-24.9	-22.2	-22.9	-20.1	-15.3
22.6	-24.1	-24.1	-23.3	-7.2	8.8
18.6	-23.8	-32.8	-22.8	1.2	6.9

4kv

5kv

0kv dead mal

0.5kv

1kv

2kv

15.1	23.8	-33.2	-31.4	-28	-23.2
13.1	51.1	-23.4	-22.1	-22.1	-15.4
50.7	50.7	-30.8	-29.1	-28.3	-5.8
17.2	17.1	-26.5	-26.5	-20.5	-18.1
16.8	38.4	-31.6	-31	-27.3	-27.5
9.6	26.1	-27.1	-25.8	-25.85	-25.3
21	33.5	-30.1	-30.1	-23.5	-19.5
14	22.6	-20.3	-19.5	-16.2	-13.5

3kv

4kv

5kv

-16.7	26.1	32.4
12.5	17.2	17.1
17.1	20.9	25.1
-7.8	16.9	16.9
-20.7	1.9	16.8
-17.3	24.5	28.3
13.7	20	26.6
10.5	41.4	41.2