

Appendix: Heat Transfer Data

Table A1. Nusselt numbers for $\eta = 1$

Run	δ	Nu exp	Nu num	Ra	Pe
1	1	2.29	2.74	34.95	0
2	1	6.47	4.91	85.83	0
3	1	13.07	8.18	223	0
4	1	3.32	3.16	43.63	9.9
5	1	6.50	5.25	96.52	9.9
6	1	11.60	7.1	234	9.7
7	1	4.15	6.66	60.45	30.2
8	1	7.24	7.21	126.7	30.0
9	1	11.83	8.28	265.6	29.7
10	1	6.19	11.29	78.03	99.8
11	1	7.44	11.9	247.8	100.6
12	1	14.29	12.21	358.3	100.0
13	1	9.74	19.05	88.28	300.2
14	1	13.76	19.13	223.9	296.6
15	1	7.78	19.02	40.32	301.2

Table A2. Nusselt numbers for $\eta = 0.9$

Run	δ	Nu exp	Nu num	Ra	Pe
16	1	3.65	5.75	47.95	0
17	1	8.51	9.04	126.6	0
18	1	15.23	13.36	336.3	0
19	1	2.93	4.58	48.18	9.9
20	1	7.34	6.11	108.6	9.8
21	1	13.50	11.38	279.3	9.7
22	1	3.74	6.16	54.4	31.3
23	1	7.29	6.7	108.3	31.1
24	1	12.34	7.8	240	29.7
25	1	4.74	10.23	77.24	102.1
26	1	8.58	10.48	149.7	101.4
27	1	15.90	10.64	240	96.3
28	1	6.54	16.38	102	283.0
29	1	11.25	16.51	207.1	280.6
30	1	16.46	16.79	419.5	277.1

Table A3. Nusselt numbers for $\eta = 0.75$

Run	δ	Nu exp	Nu num	Ra	Pe
31	1	4.66	10.19	70.23	0.0
32	1	9.50	13.11	165.1	0.0
33	1	16.26	17.61	425.1	0.0
34	1	3.80	9.46	70.75	8.8
35	1	9.06	12.51	162	10.9
36	1	15.71	17.41	426.6	11.8
37	1	3.42	8.3	54.87	30.2
38	1	7.22	11.29	117.9	30.0
39	1	14.93	14.24	392.7	29.5
40	1	4.06	8.22	69.03	102.2
41	1	7.61	8.62	133.6	101.6
42	1	12.45	9.42	275.2	100.5
43	1	5.70	12.5	87.8	283.3
44	1	9.87	12.72	174.7	281.2
45	1	14.55	13.21	358.9	277.9

Table A4. Nusselt numbers for $\eta = 0.5$

Run	δ	Nu exp	Nu num	Ra	Pe
46	1	5.94	16.95	94.46	0.0
47	1	11.32	21.44	244	0.0
48	1	18.20	26.49	638.8	0.0
49	1	5.74	17.35	98.63	7.6
50	1	11.22	21.42	249.9	8.6
51	1	18.01	26.19	654.7	6.3
52	1	5.69	15.81	95.01	31.2
53	1	10.91	20.59	241.7	30.8
54	1	17.73	25.94	651.8	29.1
55	1	4.45	7.7	64.54	102.2
56	1	10.55	18.71	238.1	100.7
57	1	17.30	24.81	600.3	98.9
58	1	5.35	10.66	84.4	299.7
59	1	9.25	11	172.5	297.4
60	1	13.76	11.71	360.1	293.8

Table A5. Experimental results for $\eta = 0$

Run	δ	Nu exp	Nu num	Ra	Pe
61	1	31.30	30.54	36.99	0.0
62	1	51.49	36.88	91.12	0.0
63	1	76.17	44.49	214.1	0.0
64	1	26.07	31.74	44.45	12.2
65	1	49.40	36.92	91.32	6.5
66	1	71.89	45.1	226.8	10.9
67	1	22.85	32.73	51.16	30.2
68	1	52.16	36.69	87.94	30.1
69	1	70.35	45.33	230.8	29.8
70	1	25.52	29.94	34.82	102.5
71	1	41.90	36.12	81.89	101.1
72	1	74.79	44.94	217.4	100.9
73	1	26.55	25.8	37	268.1
74	1	48.58	29.76	76.71	316.5
75	1	68.92	34.73	179.3	297.5

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