TABLE 3

Water activity, lag period, cell count, carbon dioxide production, oxygen absorption, maximal heat output (experimental and calculated), and heat output per cell in broths of increasing strength

Broth	Nutrients (g/100 g water)	a_w 37 C	Lag Period (hr)	Time to Reach Maximal Heat Output (hr)	At Point of Maximal Heat Output						
					Cell count (cells/ml $\times 10^{-10}$)	Per cent colonies shown to be *E. coli* (type I)	CO_2 production (g:sec:ml $\times 10^8$)	O_2 consumption (g:sec:ml $\times 10^8$)	Heat output (cal:sec:ml $\times 10^4$)	Calculated heat output (cal:sec:ml $\times 10^4$)	Heat output per cell (cal:cell:sec $\times 10^{12}$)
A	1.8	0.998	3.1	5.0	0.40		8	9	5.1	3	0.13
B	3.6	0.996	2.4	4.5	0.93	99	16	18	11.5	7	0.12
C	5.4	0.993	3.0	7	2.1		33	37	15.0	13	0.07
D	9.0	0.989	2.5	6.5	1.5	99	49	50	19.5	18	0.13
E	13.5	0.984	3.5	7	1.9	99	48	48	18.7	17	0.10
F	18	0.977	4.0	9.5	3.2	96	73	74	31.0	27	0.10
G	27	0.972	5.5	13.5	3.7	100	95	86	39.0	30	0.11
H	36	0.965	18.5	48.5	0.68	0	28	26	15.8	10	0.23
I	54	0.950	44.0	85	0.30	0	27	26	13.2	10	0.44
J	72	0.942	51.0	126	0.12	0	20	22	11.5	9	0.95

TABLE 1

Composition, density, and water activity of broths

Broth	Water (g)	Tryptone (g)	Beef Extract (g)	Glucose (g)	Volume (ml)	Density (d_{20})	Water Activity (a_w)
A	100	1	0.6	0.2	101	1.005	0.998
B	100	2	1.2	0.4	103	1.010	0.996
C	100	3	1.8	0.6	104	1.015	0.993
D	100	5	3.0	1.0	107	1.025	0.989
E	100	7.5	4.5	1.5	110	1.037	0.984
F	100	10	6	2	112	1.052	0.977
G	100	15	9	3	119	1.066	0.972
H	100	20	12	4	126	1.081	0.965
I	100	30	18	6	137	1.114	0.950
J	100	40	24	8	151	1.135	0.942