

Appendix A.

The values of the dispersed phase holdup, mean drop size, and extraction efficiency are presented in Tables A1 and A2 for the water-acetone-toluene and water-acetonebutyl acetate systems, respectively.

Table A1. The values of the dispersed phase holdup, the mean drop size and the extraction efficiency for the water acetone toluene system

Run	Operating conditions			Horizontal section		Vertical section		Extraction efficiency
	Af (cm/s)	Q_c (lit/hr)	Q_d (lit/hr)	d_{32} (mm)	Holdup (%)	d_{32} (mm)	Holdup (%)	
1	0.60	8	8	1.8	25.8	3.3	2.0	0.87
2	0.80	8	8	1.5	22.6	3.2	1.7	0.92
3	0.95	8	8	1.3	20.0	2.9	1.3	0.94
4	1.10	8	8	1.1	18.6	2.7	1.1	0.96
5	0.95	8	6	1.2	17.5	2.9	1.0	0.90
6	0.80	8	10	1.6	22.6	3.2	2.2	0.96
7	0.95	8	12	1.4	27.0	3.0	1.4	0.91
8	0.95	8	10	1.3	23.0	2.9	1.8	0.93
9	0.80	8	12	1.6	22.6	3.3	2.3	0.91
10	0.95	6	8	1.2	18.0	2.9	1.0	0.89
11	1.10	10	8	1.2	20.6	2.7	1.7	0.94
12	0.80	6	8	1.4	22.9	3.1	1.3	0.87
13	0.95	10	8	1.3	22.0	3.0	1.6	0.95
14	1.10	12	8	1.3	22.6	2.8	2.2	0.98
15	0.95	12	8	1.4	24.0	3.0	2.0	0.97
16	1.10	6	8	1.0	16.5	2.7	1.0	0.90
17	0.80	8	6	1.4	22.5	3.1	1.4	0.88
18	0.60	6	8	1.7	26.7	3.3	1.6	0.85

Table A2. The values of the dispersed phase holdup, the mean drop size and the extraction efficiency for the water acetone n-butyl acetate system

Run	Operating conditions			Horizontal section		Vertical section		Extraction efficiency
	Af (cm/s)	Q_c (lit/hr)	Q_d (lit/hr)	d_{32} (mm)	Holdup (%)	d_{32} (mm)	Holdup (%)	
1	0.60	8	8	1.5	23.3	2.5	2.2	0.89

2	0.80	8	8	1.2	21.1	2.2	1.9	0.93
3	0.95	8	8	1.0	20.4	2.0	1.6	0.94
4	1.10	8	8	0.8	18.7	1.8	1.4	0.95
5	0.95	8	6	0.9	18.1	1.9	1.3	0.89
6	0.80	8	10	1.3	23.1	2.2	2.3	0.97
7	0.95	8	12	1.1	24.4	2.1	2.5	0.92
8	0.95	8	10	1.0	22.4	2.0	2.0	0.93
9	0.80	8	12	1.3	25.1	2.3	2.7	0.91
10	0.95	6	8	0.9	20.0	1.9	1.3	0.89
11	1.10	10	8	0.8	19.2	1.8	1.8	0.96
12	0.80	6	8	1.2	20.6	2.1	1.4	0.88
13	0.95	10	8	1.0	20.9	2.0	1.9	0.94
14	1.10	12	8	0.9	19.8	1.9	2.2	0.97
15	0.95	12	8	1.1	21.5	2.1	2.4	0.98
16	1.10	6	8	0.8	18.1	1.7	1.3	0.91
17	0.80	8	6	1.2	20.0	2.1	1.5	0.90
18	0.60	6	8	1.5	23.0	2.4	1.9	0.87
