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APPENDIX

Table A-1: The coagulation experiment result for removal DOC from Aung-Keaw Reservoir water

pH/Alum dosage (mg/L)	DOC residue (mg/L)	percent removal (%)	pH/Alum dosage (mg/L)	DOC residue (mg/L)	percent removal (%)	pH/Alum dosage (mg/L)	DOC residue (mg/L)	percent removal (%)
5.0/ 0	2.338	0.0	5.5/ 0	2.338	0.0	6.0/ 0	2.338	0.0
5.0/ 20	1.074	54.1	5.5/ 20	1.123	52.0	6.0/ 20	1.217	47.9
5.0/ 40	1.023	56.2	5.5/ 40	1.032	55.9	6.0/ 40	1.15	50.8
5.0/ 60	0.918	60.7	5.5/ 60	0.959	59.0	6.0/ 60	1.01	56.8
5.0/ 80	0.881	62.3	5.5/ 80	0.841	64.0	6.0/ 80	0.988	57.7
5.0/ 100	0.942	59.7	5.5/ 100	0.826	64.7	6.0/ 100	0.963	58.8

pH/Alum dosage (mg/L)	DOC residue (mg/L)	percent removal (%)	pH/Alum dosage (mg/L)	DOC residue (mg/L)	percent removal (%)
6.5/ 0	2.338	0.0	7.0/ 0	2.338	0.0
6.5/ 20	1.434	38.7	7.0/ 20	1.709	26.9
6.5/ 40	1.157	50.5	7.0/ 40	1.366	41.6
6.5/ 60	1.155	50.6	7.0/ 60	1.164	50.2
6.5/ 80	1.183	49.4	7.0/ 80	1.169	50.0
6.5/ 100	1.137	51.4	7.0/ 100	1.098	53.0

Table A-2: The coagulation experiment result for removal UV-254 from Aung-Keaw Reservoir water

pH/Alum dosage (mg/L)	UV-254 residue (1/cm)	percent removal (%)	pH/Alum dosage (mg/L)	UV-254 residue (1/cm)	percent removal (%)	pH/Alum dosage (mg/L)	UV-254 residue (1/cm)	percent removal (%)
5.0/ 0	0.1085	0.0	5.5/ 0	0.1085	0.0	6.0/ 0	0.1085	0.0
5.0/ 20	0.0265	75.6	5.5/ 20	0.0298	72.5	6.0/ 20	0.0372	65.7
5.0/ 40	0.0295	72.8	5.5/ 40	0.0237	78.2	6.0/ 40	0.0237	78.2
5.0/ 60	0.0208	80.8	5.5/ 60	0.0195	82.0	6.0/ 60	0.0209	80.7
5.0/ 80	0.0245	77.4	5.5/ 80	0.0177	83.7	6.0/ 80	0.0182	83.2
5.0/ 100	0.0206	81.0	5.5/ 100	0.0208	80.8	6.0/ 100	0.0179	83.5

pH/Alum dosage (mg/L)	UV-254 residue (1/cm)	percent removal (%)	pH/Alum dosage (mg/L)	UV-254 residue (1/cm)	percent removal (%)
6.5/ 0	0.1085	0.0	7.0/ 0	0.1085	0.0
6.5/ 20	0.0305	71.9	7.0/ 20	0.0634	41.6
6.5/ 40	0.0234	78.4	7.0/ 40	0.0369	66.0
6.5/ 60	0.0231	78.7	7.0/ 60	0.0276	74.6
6.5/ 80	0.0235	78.3	7.0/ 80	0.0290	73.3
6.5/ 100	0.0225	79.3	7.0/ 100	0.0234	78.4

Table A-3: The coagulation experiment result for removal SUVA from Aung-Keaw Reservoir water

pH/Alum dosage (mg/L)	SUVA residue (L/mg-m)	percent removal (%)	pH/Alum dosage (mg/L)	SUVA residue (L/mg-m)	percent removal (%)	pH/Alum dosage (mg/L)	SUVA residue (L/mg-m)	percent removal (%)
5.0/ 0	4.641	0.0	5.5/ 0	4.641	0.0	6.0/ 0	4.641	0.0
5.0/ 20	2.467	46.8	5.5/ 20	2.654	42.8	6.0/ 20	3.057	34.1
5.0/ 40	2.884	37.9	5.5/ 40	2.297	50.5	6.0/ 40	2.061	55.6
5.0/ 60	2.266	51.2	5.5/ 60	2.033	56.2	6.0/ 60	2.069	55.4
5.0/ 80	2.781	40.1	5.5/ 80	2.105	54.6	6.0/ 80	1.842	60.3
5.0/ 100	2.187	52.9	5.5/ 100	2.520	45.7	6.0/ 100	1.859	59.9

pH/Alum dosage (mg/L)	SUVA residue (L/mg-m)	percent removal (%)	pH/Alum dosage (mg/L)	SUVA residue (L/mg-m)	percent removal (%)
6.5/ 0	4.641	0.0	7.0/ 0	4.641	0.0
6.5/ 20	2.127	54.2	7.0/ 20	3.710	20.1
6.5/ 40	2.022	56.4	7.0/ 40	2.700	41.8
6.5/ 60	2.000	56.9	7.0/ 60	2.370	48.9
6.5/ 80	1.986	57.2	7.0/ 80	2.481	46.5
6.5/ 100	1.979	57.4	7.0/ 100	2.131	54.1

Table A-4: The coagulation experiment result for removal DOC from Mae-Kuang Reservoir water

pH/Alum dosage (mg/L)	DOC residue (mg/L)	percent removal (%)	pH/Alum dosage (mg/L)	DOC residue (mg/L)	percent removal (%)	pH/Alum dosage (mg/L)	DOC residue (mg/L)	percent removal (%)
5.0/ 0	2.402	0.0	5.5/ 0	2.402	0.0	6.0/ 0	2.402	0.0
5.0/ 20	1.130	53.0	5.5/ 20	1.413	41.2	6.0/ 20	1.29	46.3
5.0/ 40	1.112	53.7	5.5/ 40	1.252	47.9	6.0/ 40	1.256	47.7
5.0/ 60	1.062	55.8	5.5/ 60	1.172	51.2	6.0/ 60	1.162	51.6
5.0/ 80	1.051	56.2	5.5/ 80	1.124	53.2	6.0/ 80	1.171	51.2
5.0/ 100	1.054	56.1	5.5/ 100	1.095	54.4	6.0/ 100	1.146	52.3

pH/Alum dosage (mg/L)	DOC residue (mg/L)	percent removal (%)	pH/Alum dosage (mg/L)	DOC residue (mg/L)	percent removal (%)
6.5/ 0	2.402	0.0	7.0/ 0	2.402	0.0
6.5/ 20	1.586	34.0	7.0/ 20	1.878	21.8
6.5/ 40	1.316	45.2	7.0/ 40	1.562	35.0
6.5/ 60	1.316	45.2	7.0/ 60	1.364	43.2
6.5/ 80	1.246	48.1	7.0/ 80	1.308	45.5
6.5/ 100	1.248	48.0	7.0/ 100	1.352	43.7

Table A-5: The coagulation experiment result for removal UV-254 from Mae-Kuang Reservoir water

pH/Alum dosage (mg/L)	UV-254 residue (1/cm)	percent removal (%)	pH/Alum dosage (mg/L)	UV-254 residue (1/cm)	percent removal (%)	pH/Alum dosage (mg/L)	UV-254 residue (1/cm)	percent removal (%)
5.0/ 0	0.0524	0.0	5.5/ 0	0.0524	0.0	6.0/ 0	0.0524	0.0
5.0/ 20	0.0211	59.7	5.5/ 20	0.0261	50.2	6.0/ 20	0.0255	51.3
5.0/ 40	0.0186	64.5	5.5/ 40	0.0206	60.7	6.0/ 40	0.0219	58.2
5.0/ 60	0.0177	66.2	5.5/ 60	0.0200	61.8	6.0/ 60	0.0208	60.3
5.0/ 80	0.0180	65.6	5.5/ 80	0.0188	64.1	6.0/ 80	0.0202	61.5
5.0/ 100	0.0171	67.4	5.5/ 100	0.0177	66.2	6.0/ 100	0.0197	62.4

pH/Alum dosage (mg/L)	UV-254 residue (1/cm)	percent removal (%)	pH/Alum dosage (mg/L)	UV-254 residue (1/cm)	percent removal (%)
6.5/ 0	0.0524	0.0	7.0/ 0	0.0524	0.0
6.5/ 20	0.0311	40.6	7.0/ 20	0.037	29.4
6.5/ 40	0.0236	55.0	7.0/ 40	0.0287	45.2
6.5/ 60	0.0225	57.1	7.0/ 60	0.0238	54.6
6.5/ 80	0.0223	57.4	7.0/ 80	0.0225	57.1
6.5/ 100	0.0212	59.5	7.0/ 100	0.0231	55.9

Table A-6: The coagulation experiment result for removal SUVA from Mae-Kuang Reservoir water

pH/Alum dosage (mg/L)	SUVA residue (L/mg-m)	percent removal (%)	pH/Alum dosage (mg/L)	SUVA residue (L/mg-m)	percent removal (%)	pH/Alum dosage (mg/L)	SUVA residue (L/mg-m)	percent removal (%)
5.0/ 0	2.182	0.0	5.5/ 0	2.182	0.0	6.0/ 0	2.182	0.0
5.0/ 20	1.867	14.4	5.5/ 20	1.847	15.3	6.0/ 20	1.977	9.4
5.0/ 40	1.673	23.3	5.5/ 40	1.645	24.6	6.0/ 40	1.744	20.1
5.0/ 60	1.667	23.6	5.5/ 60	1.706	21.8	6.0/ 60	1.790	17.9
5.0/ 80	1.713	21.5	5.5/ 80	1.673	23.3	6.0/ 80	1.725	20.9
5.0/ 100	1.622	25.6	5.5/ 100	1.616	25.9	6.0/ 100	1.719	21.2

pH/Alum dosage (mg/L)	SUVA residue (L/mg-m)	percent removal (%)	pH/Alum dosage (mg/L)	SUVA residue (L/mg-m)	percent removal (%)
6.5/ 0	2.182	0.0	7.0/ 0	2.182	0.0
6.5/ 20	1.961	10.1	7.0/ 20	1.970	9.7
6.5/ 40	1.793	17.8	7.0/ 40	1.837	20.0
6.5/ 60	1.710	21.6	7.0/ 60	1.745	20.0
6.5/ 80	1.790	18.0	7.0/ 80	1.720	21.1
6.5/ 100	1.699	22.1	7.0/ 100	1.709	21.7

Table A-7: The coagulation experiment result for removal DOC from Mae-Sa River water

pH/Alum dosage (mg/L)	DOC residue (mg/L)	percent removal (%)	pH/Alum dosage (mg/L)	DOC residue (mg/L)	percent removal (%)	pH/Alum dosage (mg/L)	DOC residue (mg/L)	percent removal (%)
5.0/0	1.657	0.0	5.5/ 0	1.657	0.0	6.0/ 0	1.657	0.0
5.0/20	0.678	59.1	5.5/ 20	0.662	60.0	6.0/ 20	0.791	52.3
5.0/40	0.550	66.8	5.5/ 40	0.614	62.9	6.0/ 40	0.641	61.3
5.0/60	0.571	65.5	5.5/ 60	0.577	65.2	6.0/ 60	0.743	55.2
5.0/80	0.551	66.7	5.5/ 80	0.572	65.5	6.0/ 80	0.66	60.2
5.0/100	0.512	69.1	5.5/ 100	0.57	65.6	6.0/ 100	0.674	59.3

pH/Alum dosage (mg/L)	DOC residue (mg/L)	percent removal (%)	pH/Alum dosage (mg/L)	DOC residue (mg/L)	percent removal (%)
6.5/ 0	1.657	0.0	7.0/ 0	1.657	0.0
6.5/ 20	1.091	34.2	7.0/ 20	1.219	26.4
6.5/ 40	0.933	43.7	7.0/ 40	1.119	32.5
6.5/ 60	0.828	50.0	7.0/ 60	1.016	38.7
6.5/ 80	0.858	48.2	7.0/ 80	1.003	39.5
6.5/ 100	0.822	50.4	7.0/ 100	0.951	42.6

Table A-8: The coagulation experiment result for removal UV-254 from Mae-Sa River water

pH/Alum dosage (mg/L)	UV-254 residue (mg/L)	percent removal (%)	pH/Alum dosage (mg/L)	UV-254 residue (mg/L)	percent removal (%)	pH/Alum dosage (mg/L)	UV-254 residue (mg/L)	percent removal (%)
5.0/0	0.0244	0.0	5.5/ 0	0.0244	0.0	6.0/ 0	0.0244	0.0
5.0/20	0.0135	44.7	5.5/ 20	0.0127	48.0	6.0/ 20	0.0137	43.9
5.0/40	0.0139	43.0	5.5/ 40	0.0181	25.8	6.0/ 40	0.0130	46.7
5.0/60	0.0142	41.8	5.5/ 60	0.0151	38.1	6.0/ 60	0.0124	49.2
5.0/80	0.0118	51.6	5.5/ 80	0.0130	46.7	6.0/ 80	0.0121	50.4
5.0/100	0.0102	58.2	5.5/ 100	0.0105	57.0	6.0/ 100	0.0100	59.0

pH/Alum dosage (mg/L)	UV-254 residue (mg/L)	percent removal (%)	pH/Alum dosage (mg/L)	UV-254 residue (mg/L)	percent removal (%)
6.5/ 0	0.0244	0.0	7.0/ 0	0.0244	0.0
6.5/ 20	0.0170	30.3	7.0/ 20	0.0184	24.6
6.5/ 40	0.0132	45.9	7.0/ 40	0.0159	34.8
6.5/ 60	0.0125	48.8	7.0/ 60	0.0141	42.2
6.5/ 80	0.0121	50.4	7.0/ 80	0.0133	45.5
6.5/ 100	0.0117	52.0	7.0/ 100	0.0129	47.1

Table A-9: The coagulation experiment result for removal SUVA from Mae-Sa River water

pH/Alum dosage (mg/L)	SUVA residue (mg/L)	percent removal (%)	pH/Alum dosage (mg/L)	SUVA residue (mg/L)	percent removal (%)	pH/Alum dosage (mg/L)	SUVA residue (mg/L)	percent removal (%)
5.0/0	1.390	0.0	5.5/ 0	1.390	0.0	6.0/ 0	1.390	0.0
5.0/20	1.991	0.0	5.5/ 20	1.918	0.0	6.0/ 20	1.732	0.0
5.0/40	2.527	0.0	5.5/ 40	2.948	0.0	6.0/ 40	2.028	0.0
5.0/60	2.487	0.0	5.5/ 60	2.617	0.0	6.0/ 60	1.669	0.0
5.0/80	2.142	0.0	5.5/ 80	2.273	0.0	6.0/ 80	1.833	0.0
5.0/100	1.992	0.0	5.5/ 100	1.842	0.0	6.0/ 100	1.484	0.0

pH/Alum dosage (mg/L)	SUVA residue (mg/L)	percent removal (%)	pH/Alum dosage (mg/L)	SUVA residue (mg/L)	percent removal (%)
6.5/ 0	1.390	0.0	7.0/ 0	1.390	0.0
6.5/ 20	1.558	0.0	7.0/ 20	1.509	0.0
6.5/ 40	1.415	0.0	7.0/ 40	1.421	0.0
6.5/ 60	1.510	0.0	7.0/ 60	1.388	0.1
6.5/ 80	1.410	0.0	7.0/ 80	1.326	4.6
6.5/ 100	1.423	0.0	7.0/ 100	1.356	2.4

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