Separation Process Engineering
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Corrections for February 14, 2023

Pg	Error	Correction
46	Eq. (2-59c), Values for C, D, E, F are incorrect.	C = -0.179390, D= -0.012379, E = -3.86235E-04, F = -2.955E-04
49	Last 3 lines of Part 3 of solution.	For a vertical drum, Eq. (2-59a) with the constants in Eq. (2-59c) gives $K_{vertical}$ 0.449, which is high , but agrees with Watkins (1967) charts.
49	Last line, constant 0.346 and answer.	Constant =0.449 and answer is 6.660 ft/s.
50	2nd line, value 5.1362 ft/s and answer 20.57	Value is 6.660 ft/s and answer is 15.86
50	3rd line, D = 5.149 ft	D = 4.495 ft

50	4^{th} line, Round up to 5.5 ft	Round up to the nearest 6 inches, which is a 4.5 ft diameter drum; however, since K_{drum} is high and u_{perm} is high use of a 5.0 ft diameter drum is recommended.
50	5^{th} line, h_{total} = 4 (5.5 ft) = 22.0 ft	h_{total} = 4(5.0 ft) = 20.0 ft.
50	Part E, Check, First 3 lines of Check	The result is close to the result using different equations and constants for K_{drum} (Wankat, 2017). Minimums for h_v and h_f are
52		Add, Watkins, R. N., "Sizing Separators and Accumulators," *Hydrocarbon Processing*, *46* (1), 253 (Nov. 1967).
58	Problem D23, first line: specified a 5.5-foot diameter 22.0-foot long drum	specified a 5.0-foot diameter 20.0-foot long drum
409	Table 11-9, 2^{nd} column, 3 corrections	the label 5°C return 15°C should be on line for Chilled water; the label -20°C should be on line for Low T; the label -50°C should be on line for Very low T
536	Last equation on stage: Value of Per_f in denominator = 2.668	Value of Per_f in denominator = 2.632
1012	2^{nd} line. units are g/cm^3	Units mol/cm^3
1034	Item 18	After "the toolbar)." add "Feed concentration should be 50 g/L.
1036	(lab AC2)Before **Answers.** Change *Turn in* to,	*Turn in:* "Your instructor may request the following assignment. Do breakthrough curves for Dextran T6 and fructose with a feed concentration of 50 g/L of each. Use Buds with 50 nodes. For column lengths of 25, 50, and 100 cm use the history to calculate the value of t_{MTZ}, Linear adsorption theory predicts that t_{MTZ} is proportional to L to

		the 1/2 power. Determine if this prediction is true for Dextran T6.”
1038	(Lab AC3) Step 13. Repeat Step 6	Step 13. Repeat step 9
1053	(lab AC8), Specify Table, IP1 =52744.5	IP1 = 52910.3
1053	(lab AC8), Specify Table, IP3 = 3046.7	IP3 = 3946.7

This errata sheet is intended to provide updated technical information. Spelling and grammar misprints are updated during the reprint process, but are not listed on this errata sheet.