Errata
January 15, 2022.
Regrettably, errors crept into the manuscript of the book. For a record in your book, it is suggested that you print these pages, make a notation in the book, and tuck the pages inside the back cover of your book. The following errors have been identified:

1. Page 9, in the paragraph below the heading 1.10.8, the unit for heat capacity, C_p, should be 2.7 kJ/(kg °C).

2. Page 18, Point 4. Eq. should read: where $P_c' = pP_c \bullet pT_c'/(pT_c + B \bullet (1-B) \bullet \varepsilon)$.

3. Page 30, middle of page: two references to Table 5, NACE/ISO Standard should read: "Table A-3 in Part 2 of the NACE/ISO Standard".

4. Page 58, in middle of the middle paragraph, should read: "a value for C_p of 2.7 kJ/(kg °C) is"

5. Page 60, lower half of page, the text and the Nielsen-Bucklin equation should be as follows:

The amount of methanol required for the depression of the hydrate temperature for the safe operation of the gas line can be estimated with the Nielsen-Bucklin equation:[53]

$$d = -72 \ln(1-X_{H2O}) \qquad (2.21)$$

where d = hydrate temperature depression, °C
X_{H2O} = mole fraction H_2O in final methanol/water mixture, mol fr

Hydrate temperature depression with methanol depends on the concentration of methanol in the methanol-water mixture. This is usually expressed in mass percent (mass%) of methanol in water. To use Figure 2.28 to estimate d, it is necessary to convert mole fraction H_2O (X_{H2O}) to mass% methanol in the water mixture. This can be done with Eq. 2.22.

$$\text{mass\%} = (X_{MeOH} \bullet 32)/(X_{MeOH} \bullet 32+(100-X_{MeOH}) \bullet 18) \bullet 100 \qquad (2.22)$$

where mass% = mass percent methanol in methanol-water mixture
X_{MeOH} = mole percent of methanol in methanol-water mixture, mol%.
$= (1- X_{H2O}) \bullet 100$

6. Page 85, in Table 3.1, the Rel Mol Mass of DIPA, in the right-side column is 133.19, rather than 133.119.

7. Page 98, in Point 3.19, at the bottom of the page, the reference to the equation in the Data Book should be Eq. 21-11 rather than Eq. 21-12. (GPSA Errata page 21-16, July 2013).

8. Page 208, near top of page, the value for H_2O = 2 147 mg/Sm^3, not 2 207 (sweet gas).

9. Page 215, in Table 5.1, the values of water content under Equ'n 5.1 should be changed to the following:

Pressure, kPa abs	H_2O, mg/Sm^3 at 30°C	H_2O, mg/Sm^3 at 40°C
150	21 550	37 470
400	8 290	14 340
1 000	3 560	6 140
2 700	1 570	2 670

10. Page 249, middle of page, correct spelling of synthetic material is PEEK not PEAK.

11. Page 58, Eq. 2-19 requires a set of brackets, as shown in red:

$$q \bullet C_p \bullet (T_1 - T_2) = U \bullet A \bullet ((T_1 - t) - (T_2 - t))/\ln((T_1-t)/(T_2-t)) \qquad (2.19)$$

12. Page 26, in the table under Results:
in Step 3., the value should be -3.9°C instead of -1.5°C;
in Step 4., the value should be 13.6°C instead of 16°C.

13. On Page 53, the constants in Equations 2.7, 2.8, 2.9 and 2.10 need to be changed as follows:
in Eq. 2.7, change 0.1034 to 0.102 4;
in Eq. 2.8, change 0.010 69 to 0.010 49;
in Eq. 2.9, change 0.010 69 to 0.010 49;
in Eq. 2.10, change 0.010 69 to 0.010 49.

(Revised March 30, 2023)