Many of these corrections have been made in the second printing of the 2nd Edition.

**Acknowledgements**
"for his studies of chemical processes on solid surfaces"…
I would particularly like to acknowledge … Brigitte Vögele … for providing original figures. The heroic efforts of Yukio Ogata in securing the sumi nagashi….
Czesław Miłosz
Errors in the second edition were pointed out by Qixiu Li.

**Chapter 1**
p. 20 Should read
"The International Union of Pure and Applied Chemistry (IUPAC) recommendations {*}
define samples with free diameters <2 nm as microporous, between 2 and 50 nm as mesoporous, and >50 nm as macroporous."

p. 52. In Exercise 1.4 it should say "Use the value of the Fermi energy given in Exercise 1.2".

**Chapter 2**
p. 68 There is a missing $\frac{1}{2}$ in the equation $E_{K,\text{flow}} = \frac{1}{2} m V^2$.

p. 87. Fig. 2.14 should be rotated clockwise by 90°.

**Chapter 3**
p. 139. Fig. 3.7 should be rotated clockwise by 90°. Also the letter σ appears as a 0, as in $3 \sigma E = -1.5210, 4 \sigma E = -0.8038, 5 \sigma E = -0.5544$, and $6 \sigma E = 0.2755$

Chapter 4
p. 213 immediately below Eq. (4.2.1) it should read:
where $Q_{\text{ads}}$ is

p. 221 There is a missing minus sign in Eq. (4.4.14)\[q_{\text{vib}} = \prod_i \frac{1}{1 - \exp(-h \nu_i / k_b T)} \]

On p. 230, Eq. (4.62) is referenced twice rather than Eq. (4.5.6) Comparing this result to our CTST result in Eq. (4.5.6)…
At $\theta = 0$, Eq. (4.5.6) reduces to
p. 231. In Eq. (4.5.17), should read

\[ s = s_0 (1 - 2\theta) \text{ for } \theta < 0.5 \]
\[ s = 0 \text{ for } \theta \geq 0.5 \]  

(4.5.17)

On p. 235, Eq. (4.6.1) should read

\[ pk_{\text{ads}} (1 - \theta) = \theta k_{\text{des}} \]  

(4.6.1)

On p. 236, Equation (4.6.8) should read

\[ \frac{1}{\sigma} - \frac{1}{\sigma_0} \approx \frac{1}{\sigma} = \frac{1}{bp} \quad \therefore \sigma = bp \]  

(4.6.8)

p. 238

Temperature programmed desorption\textsuperscript{17,57-60}

\section*{Chapter 5}

p. 270. The figure caption and discussion do not make it completely clear that \( r \) is the radius of the meniscus (the effective radius of the bubble) and that \( r_c \) is the pore radius at the top of the meniscus. In the case of a hydrophilic surface with \( \psi = 0^\circ \), these two are equal. The figure caption should read.

Fig. 5.7 (a) A conical pore with a hydrophilic surface induces the condensation of water and the condensation radius \( r_c \) (i.e. the width of the pore at the point where the meniscus forms) is equal to the effective radius \( r \) of the "bubble" of condensed liquid that forms the meniscus. (b) Capillary condensation in a pore with a partially wetting surface, in which case the bubble has a greater radius than the pore radius where condensation occurs, \( r > r_c \). (c) A cylindrical pore with a width \( r_1 \) significantly smaller than the length, \( r_2 \). (d) An illustration of meniscus formation in the presence of two spherical particles of radius \( R_p \).

p. 292. In problem 5.8 it should read

\( \text{Si}(111)-(1 \times 1) \) layer

p. 293. Problem 5.15 should read

5.15 Calculate the effective pressure due to capillary forces and the critical film thickness for a porous silicon film with a porosity \( \varepsilon = 0.90 \) when dried in air after rinsing in water or ethanol. The mean pore radius is \( r_p = 5 \text{ nm} \). \( \gamma_{\text{EtOH}} = 22.75 \text{ mN m}^{-1} \), \( \gamma_{\text{water}} = 71.99 \text{ mN m}^{-1} \), \( \gamma_{\text{Si}} = 1000 \text{ mN m}^{-1} \), \( E_{\text{Si}} = 1.62 \times 10^{11} \text{ N m}^{-2} \).

\section*{Chapter 6}

p. 310. Eq. (6.4.26) should read
\[ K_7 = \frac{(\theta_{\text{H}_2})^2}{(p_{\text{H}_2}/p_0)(\theta_*)^2} \] (6.4.26)

p. 313 The entropy term for Rxn. (6.5.1) is favourable for the reaction as written.

p. 316. Fig. 6.7 should be rotated clockwise by 90°.

p. 331. Eq. (6.14.2) should read

\[ \theta_{N*} = \frac{P_{\text{NH}}P_0^{0.5}}{K_3K_4K_6K_7P_{\text{H}_2}^{0.5}\theta_*} \] (6.14.2)

p. 329 "intermediately strong interactions"

**Chapter 7**

Equation 7.1.4 should read

\[ e_0(x) = 0.0726 x \]

**Chapter 8**

p. 404, not really a mistake but the typography looks a bit confusing so better would be to put the factors in as fractions:

"with a mean energy \( E_F + \frac{1}{3}\delta E \). They go on to collide with two more electrons near \( E_F \) to form four electrons at \( E_F + \frac{1}{2}\delta E \), etc."

p. 448. In Exercise 8.3, Eq. (8.9.4) it should be \( I_{\text{den}} \) as in

\[ I_{\text{den}}(t) dt = a_d \frac{L^4}{t^2} \exp\left(-b(L/t)^2\right) dt \] (8.9.4)

p. 449. In Exercise 8.10, the final state contains a 5\( \sigma^{-1} \) term and should read:

8.10 Consider a CO molecule adsorbed on a metal surface such that its 5\( \sigma \) state lies far below \( E_F \), its 2\( \pi^* \) state is very close to but slightly above \( E_F \) and the 6\( \sigma^* \) state lies far above \( E_F \). Describe the electron dynamics that lead to two different 5\( \sigma^{-1} \) state after absorption by the absorbed CO of a photon with an energy that is resonant with the 5\( \sigma \rightarrow 6\sigma^* \) transition.

p. 450 In Exercise 8.17, it should read: Eq. (8.4.11).

p. 451. The overpotential is defined with a switched sign, and should read:

(b) If the Gibbs energy of activation depends on the **overpotential** \( \eta = U_0 - U \)
In some of the hardbound editions, Exercise 8.18 and 8.19 as well as the references to Ch 8 and Appendix I do not appear.