Solution Scattering

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In the above chapter of the book by Poon WCK and Andelman D (eds.), 2006, Soft Condensed Matter Physics in Molecular and Cell Biology (Taylor & Francis, New York) some of the figures were printed incompletely. Here is a set of complete figures (with figure captions unchanged).
Figure 1. (A) Scattering geometry. (B) Definition of the scattering vector $Q$.

Figure 5. (A) Dependence of the scattering length $b$ on the atomic number $z$. All values are averages according to the natural occurrence of isotopes, except for hydrogen where $b$ of $^1$H (cross) and $^2$H (deuterium D, plus) is indicated separately. (B) Dependence of the scattering length density $\rho$ on the D$_2$O content, $X$, of water for a typical protein and RNA. The dotted line indicates the scattering length density for an H$_2$O-D$_2$O mixture of composition $X$. 
Figure 7. (A) Schematic representation of a typical time dependence of the scattered intensity $I(t)$. Two different delay times ($\tau_1 < \tau_2$) are indicated as examples. (B and C) Schematic representations of a typical normalised time correlation function $g^{(2)}(\tau)$ (B) and intermediate scattering function $f(\tau)$ (C) as a function of delay time $\tau$. Note that the horizontal axes in (B) and (C) are stretched by a factor of about 5 compared to the horizontal axis in (A).

Figure 8. Small-angle neutron scattering data of solutions containing representative parts of the central domain of the protein gluten, dB1 and dB4. (A) Normalised scattered intensities $I(Q)/c$ as a function of the magnitude of the scattering vector $Q$ in a log-log representation. Asymptotic $I(Q) \sim Q^{-5/3}$ and $I(Q) \sim Q^{-1}$ behaviours are indicated as the dashed and dotted lines, respectively. (B) $I(Q)Q$ as a function of $Q$ (‘Holtzer plot’). The solid lines are fits based on a semi-flexible polymer model (Egelhaaf et al. 2003).
Figure 10. Contrast variation series obtained by small-angle neutron scattering of aqueous solutions containing a virus. (A) Scattered intensities $I(Q)$ as a function of the magnitude of the scattering vector $Q$. (B) Radial scattering length density distribution $\rho(r)$ for different solvent compositions (0% $D_2O$, solid line; 42% $D_2O$, dotted line; 69% $D_2O$, dashed line). The inset is a schematic representation of the virus model with an RNA core and a protein shell (Jacrot 1976, Jacrot et al. 1977).

Figure 11. Structure factor $S(Q)$ as a function of scattering vector $Q$ of aqueous solutions of DNA obtained by small-angle neutron scattering. (A) $S(Q)$ for different DNA concentrations (\(\circ, 0.05 \text{ M}; \bullet, 0.1 \text{ M}; \square, 0.2 \text{ M}\)) and a constant salt concentration of 0.2 M KBr. (B) $S(Q)$ for different excess salt concentrations (\(\circ, 0.04 \text{ M KBr}; \bullet, 0.2 \text{ M KBr}; \square, 1 \text{ M KBr}; \triangle, 2 \text{ M KBr}\)) and a constant DNA concentration of 0.1 M (van der Maarel and Kassapidou 1998).