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1.2 The Damköhler equations.

1.3 Investigation of the Damköhler equations by means of similarity theory.

1.4 Analogies.

1.5 Dimensional analysis.

1.6 The Buckingham $\Pi$ theorem.

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3.3 Fundamental functions of thermodynamics.

3.4 Latent heat and heat of reaction.

3.5 Thermal conductivity.

3.6 Thermal diffusivity and Prandtl number.

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3.11 Physical characteristics of food powders.
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4.3 Solid behaviour.

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5.3 Properties of macromolecular colloids.

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5.7 Theory of colloidal stability: the DLVO theory.

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8.1 Preparation of aqueous solutions of carbohydrates.
8.2 Solubility of sucrose in water.
8.3 Aqueous solutions of sucrose and glucose syrup.
8.4 Aqueous sucrose solutions containing invert sugar.
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8.6 Rate of dissolution.

Chapter 9 Evaporation.

9.1 Theoretical background – Raoult’s law.
9.2 Boiling point of sucrose/water solutions at atmospheric pressure.
9.3 Application of a modification of Raoult’s law to calculate the boiling point of carbohydrate/water solutions at decreased pressure.
9.4 Vapour pressure formulae for carbohydrate/water solutions.
9.5 Practical tests for controlling the boiling points of sucrose solutions.
9.6 Modelling of an industrial cooking process for chewy candy.

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10.1 Introduction.
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10.3 Crystallization from melts.
10.4 Crystal size distributions.
10.5 Batch crystallization.
10.6 Isothermal and non-isothermal recrystallization.
10.7 Methods for studying the supermolecular structure of fat melts.
10.8 Crystallization of glycerol esters: Polymorphism.
10.9 Crystallization of cocoa butter.
10.10 Crystallization of fat masses.
10.11 Crystallization of confectionery fats with a high trans-fat portion.
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12.3 Transporting dessert masses in long pipes.
12.4 Changes in pipe direction.
12.5 Laminar unsteady flow.
12.6 Transport of flour and sugar by air flow.

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13.2 Theory of pressing.
13.3 Cocoa liquor pressing.

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15.3 Granulation by fluidization.
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Chapter 16 Chemical operations (inversion and caramelization), ripening and complex operations.
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17.2 Shelf life and storage.
17.3 Storage scheduling.

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18.2 Stability theories: types of stability.

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Further reading.