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In writing this book, I have tried to provide background information and references to experiments to put theory in a proper context. Readers are assumed to be familiar with the basic ideas of quantum mechanics, statistical mechanics and point-group symmetry. Most other derivations are treated in sufficient detail to make them accessible to nonspecialists, graduate students and advanced undergraduates. A number of more peripheral topics are covered at an introductory level to provide pointers to further reading.

Some of this material has formed the basis of lecture courses on the subject of energy landscapes delivered to students at Cambridge and Harvard Universities, and at Les Houches Summer Schools, although it has all been rewritten in the current endeavour. I am particularly grateful to all the people who read initial drafts, and helped me to prepare figures.

No molecules were harmed in the writing of this book, although a number underwent significant rearrangements.