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Nota di contenuto	Principles and Practice of Skin Toxicology; Contents; Foreword; Preface; Acknowledgements; List of contributors; PART I Introduction; 1 Cutaneous anatomy and function; 1.1 Introduction and scope; 1.2 Surface features; 1.3 Functional histology of the epidermis and associated structures; 1.4 Species differences; Summary; References; 2 Biochemistry of the skin; 2.1 Introduction and scope; 2.2 Protein synthesis and organisation during epidermal differentiation; 2.3 Lipid synthesis and organisation during epidermal differentiation; 2.4 Lipid classes in the stratum corneum 2.5 Stratum corneum turnover2.6 Biotransformations in skin; Summary; References; 3 Skin photobiology; 3.1 Introduction and scope; 3.2 Photoprotection and melanogenesis; 3.3 Increased environmental ultraviolet radiation exposure and its link with photoageing and skin cancer; 3.4 Mitochondrial DNA as a biomarker of sun exposure in human skin; 3.5 Apoptosis; 3.6 Sun protection; Summary; References;

PART II Skin Absorption; 4 Skin as a route of entry; 4.1 Salient anatomical features of the stratum corneum - the 'brick and mortar model'; 4.2 Species and regional variation in skin structure
4.3 Species and regional variation in skin permeability4.4 Intra- and inter-individual variation in percutaneous absorption; 4.5 Effect of age on skin barrier function; 4.6 Role of skin appendages; 4.7 The in vitro skin sandwich model; 4.8 Penetration of particles through appendages; Summary; References; 5 Physicochemical Factors Affecting Skin Absorption; 5.1 Introduction; 5.2 Physicochemical properties; 5.3 Exposure considerations; Summary; References; 6 Principles of Diffusion and Thermodynamics; 6.1 Introduction and scope; 6.2 Some definitions pertaining to skin absorption kinetics
6.3 Basic concepts of diffusion6.4 Fick's Laws of diffusion; 6.5 Thermodynamic activity; 6.6 Skin absorption of a substance from two different vehicles; 6.7 Partitioning; 6.8 Diffusivity; 6.9 Skin absorption data and risk assessments; Summary; References; 7 In vivo measurements of skin absorption; 7.1 Introduction and scope; 7.2 Why conduct in vivo studies?; 7.3 Ethics and legislation; 7.4 Standard methodology: OECD Guideline 427; 7.5 Alternative in vivo methods; Summary; References; 8 In vitro percutaneous absorption measurements; 8.1 Introduction and scope; 8.2 Regulatory guidelines
8.3 Why assess percutaneous absorption in vitro?8.4 Basic principle of in vitro percutaneous absorption measurements; 8.5 Choice of diffusion cell; 8.6 Skin membrane considerations; 8.7 Integrity measurements; 8.8 Choice of receptor fluid and sampling considerations; 8.9 Test material considerations; 8.10 Application of test preparation to the skin; 8.11 Examples of results from in vitro skin absorption studies; 8.12 What is considered to be absorbed?; 8.13 Micro-autoradiography; Summary; References; PART III Toxicological Assessment; 9 Skin immunology and sensitisation; 9.1 Introduction
9.2 Definitions

Sommario/riassunto

Written by authorities in the field, this book provides a "bottom up" approach to studying skin toxicology. Principles and Practice of Skin Toxicology clearly outlines basic concepts, cites historical and modern references and contains a dictionary for easy reference. The inclusion of global legislation and regulatory aspects on the topic makes this a comprehensive review for every practitioner, clinical researcher in industry and academia, and MSc and PhD student of toxicology. Different sections cover skin structure and function, principles and measurement of skin absor