

Contents

List of Contributors, ix

Foreword, xiii

Preface, xiv

Part I: Basic Concepts, 1

Section 1: Skin Physiology Pertinent to Cosmetic Dermatology, 3

- 1** Epidermal Barrier, 5
Sreekumar Pillai, Megan Manco, Christian Oresajo, and Nada Baalbaki
- 2** Photoaging, 16
Kalee Shah, Kira Minkis, Jillian Havey Swary, and Murad Alam
- 3** Pigmentation and Skin of Color, 26
Jasmine C. Hollinger, Chesahna Kindred, and Rebat M. Halder
- 4** The Somatosensory System and Sensitive Skin, 37
Francis McGlone, David Reilly, and Zoe Diana Draeos
- 5** Novel, Compelling, Noninvasive Techniques for Evaluating Cosmetic Products, 47
Thomas J. Stephens and Lily I. Jiang
- 6** Contact Dermatitis and Topical Agents, 57
Emily C. Milam, Alexandra Price, Sarika Ramachandran, and David E. Cohen
- 7** Skin Exposome, 72
Gabrielle Sore and Stephen Lynch
- 8** Skin Microbiome: General Overview and Application Perspectives, 79
Magali Moreau and Yaxian Zhen

Section 2: Delivery of Cosmetic Skin Actives and Product Labeling, 89

- 9** Percutaneous Delivery of Cosmetic Actives to the Skin, 91
Sreekumar Pillai, Surabhi Singh, Christian Oresajo, and Nada Baalbaki
- 10** Creams and Ointments, 101
Irwin Palefsky

- 11** International Nomenclature Chemical Ingredient Dictionary and Handbook: Back-Label Ingredient Statement, 106
Eric S. Abrutyn

Part II: Hygiene Products, 115

Section 1: Cleansers, 117

- 12** Bar Cleansers, 119
K.P. Ananthapadmanabhan and Stacy Hawkins
- 13** Personal Cleansers: Body Washes, 134
Keith Ertel, Heather Focht, and Karl Wei
- 14** Facial Cleansers and Cleansing Cloths, 144
Susan Griffiths-Brophy, Erik J. Hasenoehrl, and Karl Wei
- 15** Hand Cleansers and Sanitizers, 151
Duane Charbonneau
- 16** Shampoos for Normal Scalp Hygiene and Dandruff, 165
James R. Schwartz, Eric S. Johnson, and Thomas L. Dawson

Section 2: Moisturizers, 175

- 17** Understanding the 4 Key Elements of Skin Moisturization, 177
Eric S. Abrutyn
- 18** Facial Moisturizers, 182
Yohini Appa
- 19** Hand and Foot Moisturizers, 189
Teresa M. Weber, Frank Rippke, Elke Groenniger, and Andrea M. Schoelermann
- 20** Sunless Tanning Products, 200
Peter Foltis, Angelike Galdi, and Christian Oresajo
- 21** Sunscreens, 204
Angelike Galdi, Peter Foltis, Brian Bodnar, Dominique Moyal, and Christian Oresajo

Section 3: Personal Care Products, 213

- 22** Antiperspirants and Deodorants, 215
Eric S. Abrutyn
- 23** Blade Shaving, 223
Kevin Cowley, Kristina Vanoosthuyze, Gillian McFeat, and Keith Ertel

Part III: Adornment, 231**Section 1: Colored Facial Cosmetics, 233**

- 24** Facial Foundation, 235
Sylvie Guichard, Véronique Roulier, Brian Bodnar, and Audrey Ricard
- 25** Camouflage Techniques, 244
Anne Bouloc
- 26** Lips and Lipsticks, 252
Catherine Heusèle, Hervé Cantin, and Frédéric Bonté
- 27** Eye Cosmetics, 259
Florante Ricarte, David Singh, Pamela Wong-Putnam, and Sarah A. Vickery

Section 2: Nail Cosmetics, 269

- 28** Nail Physiology and Grooming, 271
Anna Hare and Phoebe Rich
- 29** Colored Nail Cosmetics and Hardeners, 280
Paul H. Bryson
- 30** Cosmetic Protheses as Artificial Nail Enhancements, 289
Douglas Schoon

Section 3: Hair Cosmetics, 299

- 31** Hair Physiology and Grooming, 301
Maria Hordinsky, Sherman Chu, Ana Paula Avancini Caramori, and Jeff C. Donovan
- 32** Hair Dyes, 309
Rene C. Rust and Harald Schlatter
- 33** Permanent Hair Waving, 320
Annette Schwan-Jonczyk, Gerhard Sendelbach, Andreas Flohr, and Rene C. Rust
- 34** Hair Straightening, 331
Harold Bryant, Michael DeGeorge, Felicia Dixon, Angela Ellington, Andrew Greaves, and Crystal Porter
- 35** Hair Styling: Technology and Formulations, 340
Thomas Krause and Rene C. Rust

Part IV: Anti-aging, 351**Section 1: Cosmeceuticals , 353**

- 36** Botanicals, 355
Carl R. Thornfeldt
- 37** Antioxidants and Anti-inflammatories, 366
Bryan B. Fuller
- 38** Peptides and Proteins, 388
Karl Lintner

- 39** Cellular Growth Factors and Exosomes, 401
Rahul C. Mehta, Gail K. Naughton, and Mitchel P. Goldman
- 40** Topical Cosmeceutical Retinoids, 408
Olivier Sorg, Gürkan Kaya, and Jean H. Saurat
- 41** Topical Vitamins, 420
John E. Oblong and Joseph H. Jansen
- 42** Clinical Uses of Hydroxyacids, 430
Barbara A. Green, Eugene J. Van Scott, and Ruey J. Yu
- 43** The Contribution of Dietary Nutrients and Supplements to Skin Health, 442
Helen Knaggs, Mark Bartlett, Steve Wood, Doug Burke, and Jin Namkoong

Section 2: Injectable Anti-aging Techniques, 451

- 44** Botulinum Toxins, 453
Margit L.W. Juhasz, Scott R. Freeman, and Joel L. Cohen
- 45** Hyaluronic Acid Fillers, 466
Mark S. Nestor and Daniel Fischer
- 46** Calcium Hydroxylapatite for Soft Tissue Augmentation, 474
Stephen Mandy
- 47** Autologous Skin Fillers, 479
Amer H. Nassar, Andrew S. Dorizas, and Neil S. Sadick
- 48** Polylactic Acid Fillers, 485
Jacob Beer, Soraya Azzawi, Kenneth R. Beer, and Aigen Alyx Rosen

Section 3: Resurfacing and Rejuvenation Techniques, 495

- 49** Superficial Chemical Peels, 497
M. Amanda Jacobs, Randall Roenigk, and Cassandra A. Ellison
- 50** Medium-Depth Chemical Peels, 505
Gary D. Monheit and Katherine T. Hrynewycz
- 51** Ablative Laser Resurfacing: Confluent and Fractionated, 516
Michael B. Lipp, Kunal Angra, and Mitchel P. Goldman
- 52** Non-ablative Lasers, 535
Katarina R. Kesty and David J. Goldberg
- 53** Dermabrasion, 547
Christopher B. Harmon and Daniel P. Skinner
- 54** Radiofrequency Microneedling in Cosmetic Dermatology, 555
Shaun Wootten and Lawrence A. Rheins

- 55** The Growing Role for Platelet Rich Plasma in Cosmetic Dermatology, 561
Lawrence A. Rheins, Shaun Wootten, and Lynn Begovac

Section 4: Implementation of Cosmetic Dermatology into Therapeutics, 569

- 56** Antiaging Regimens, 571
Karen E. Burke
- 57** Over-the-Counter Acne Treatments, 587
Kirsten Swenson, Emmy M. Graber, and Diane Thiboutot

- 58** Rosacea Regimens, 598
Joseph Bikowski and Zoe Diana Draelos

- 59** Eczema Regimens, 606
Zoe Diana Draelos

- 60** Psoriasis Regimens, 612
Arjun M. Bashyam, Varun K. Ranpariya, and Steven R. Feldman

Index, 618

