cosmetics

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Editorial

Editorial for "Feature Papers in Cosmetics in 2025"

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1. Introduction

As we conclude this Special Issue of *Cosmetics*, we reflect on a remarkable journey through the current landscape of cosmetic science. With a total of 76 peer-reviewed papers, including original research articles and comprehensive reviews, this collection represents one of the most substantial compilations of contemporary data, methodology, and innovation in the field.

The overwhelming response to this Special Issue underscores the vitality of the cosmetic industry and the academic rigor currently being applied to beauty and personal care. The contributions span the globe, bridging the gap between basic dermatological research and commercial application.

While the scope of the 76 papers is vast, several core pillars of research emerged as dominant themes:

2. The Shift Toward Natural and Bioactive Compounds

A significant portion of the published research focused on the identification and characterization of novel bioactive ingredients derived from natural sources. From plant polyphenols and marine-derived compounds to the upcycling of agricultural by-products, authors demonstrated a clear industry-wide move toward "Green Chemistry." These studies not only validate the efficacy of traditional botanicals but also introduce new sustainable alternatives to synthetic ingredients [1].

3. Advanced Delivery Systems and Formulation Science

The challenge of stability and skin penetration remains a focal point for cosmetic chemists. Several papers in this Special Issue explored cutting-edge delivery mechanisms, including nano-emulsions, liposomes, and polymeric nanoparticles. These innovations aim to enhance the bioavailability of active ingredients, ensuring that anti-aging, antioxidant, and moisturizing agents reach the target layers of the skin more effectively [2].

4. The Skin Microbiome and Personalized Care

Reflecting a major shift in dermatological understanding, many contributors explored the skin microbiome. Research within this Special Issue highlights how cosmetic formulations can support or restore the skin's microbial balance. Furthermore, the move toward personalized cosmetics—tailored to individual genetic profiles or specific environmental stressors—was a recurring visionary theme [3].

5. Safety, Efficacy, and Regulatory Standards

With increasing consumer scrutiny and regulatory changes (such as the ban on animal testing in many jurisdictions), the development of in vitro and in silico safety assessment

Check for updates

Received: 7 May 2026
Accepted: 8 May 2026
Published: 9 May 2026

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models is more critical than ever. This Special Issue features several papers dedicated to non-invasive efficacy testing and the standardization of protocols to ensure consumer safety and claim substantiation [4].

6. Sustainability and Circular Beauty

Beyond the ingredients themselves, the research addressed the broader environmental impact of the cosmetics industry. From biodegradable packaging solutions to waterless formulations, the papers gathered here reflect a holistic commitment to reducing the ecological footprint of beauty products [5].

7. Impact and Acknowledgments

The 76 papers contained in this Special Issue serve as a roadmap for the future of the industry. They highlight a move away from superficial aesthetics toward a "science-first" approach, where skin health and environmental ethics are as important as the final visual result.

As Guest Editors, we would like to express our deepest gratitude to the authors for choosing this Special Issue as the home for their valuable research. We also extend our thanks to the diligent reviewers whose expertise ensured the high quality of the published work. Finally, we thank the editorial team at MDPI for their tireless support in managing such a high-volume and impactful collection.

We hope that this Special Issue serves as a valuable resource for researchers, formulators, and industry professionals, inspiring further innovation and the continued pursuit of excellence in cosmetic science.

Conflicts of Interest: The authors declare no conflict of interest.

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