

〈シンポジウム I〉

『毛髪研究の最前線：毛包幹細胞から毛髪特性まで』

毛髪の構造と特性
—最近の研究成果から—

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Hair Structure and Properties

—Introduction of Recent Works—

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Abstract

Relationship between hair structure and hair properties was reviewed, especially for hair appearance. Hair fibers are gradually damaged by repeated daily hair-care process, such as shampooing and hot-drying, and by chemical treatments (coloring and perm treatment). Those damages cause structural change in hair fibers. The surface roughness of hair cuticle is increased by the hair damage and causes decrease in hair luster. Porous structures in cortex and medulla are increased by the damage and cause change in hair appearance, such as color change and decrease in hair luster. Hair structure and appearance are also affected by aging. Evaluated hair luster is gradually decreased with age because hair shape changes from nearly straight in younger people to meandering in older people. The increase in meandering hair causes disordered alignment of hair fibers then causes change in hair appearance. The meandering hair shows inhomogeneous structure of intermediate filaments. The inhomogeneous structure is similar to the bilateral structure observed in crimped wool fiber.

Key words: hair, appearance, luster, damage, aging.