

November 4, 2004

KOSÉ wins award at 23rd IFSCC (International Federation Societies of Cosmetics Chemists) Congress

KOSÉ Corporation won the prestigious IFSCC AWARDS 2004 in the oral division for its presentation on its research on the theme of “Continuous Three-dimensional Examination of Interior Hair Structure” at the 23rd IFSCC Congress held from October 24 through 27 in Orlando, Florida, USA.

Established in 1959, the IFSCC¹ is the world's largest organization of researchers in the field of cosmetics. It has 13,000 members in 42 countries, including the United States, Japan, and France. The congress, held once every two years, is the most renowned forum for cosmetics chemists and cosmetics researchers to announce their research.

At this year's congress, there were 318 entries in total from around the world, 73 in the oral division and 245 in the poster presentation at the congress site. After a rigorous judging process, KOSÉ won the IFSCC AWARDS 2004, the highest honor in the oral division. KOSÉ was the only one among many Japanese manufacturers to win the award this year.

KOSÉ's winning presentation was on a completely novel measurement method that enables observation of the inside of hair without damaging it in three-dimensions, in full color, and over time as well. Not only can this method be used for treatments and other types of hair care, it can also be used to observe successive changes occurring inside hair (changes and movements in melanin, the pace of coloring, changes in coloration, etc.) with bleach and hair coloring, which until now was not possible. Going forward, KOSÉ will use this measurement method to study the permeability and usefulness of hair coloring and treatments and in the development of superior hair care products.

¹**IFSCC**: International Federation Societies of Cosmetic Chemists

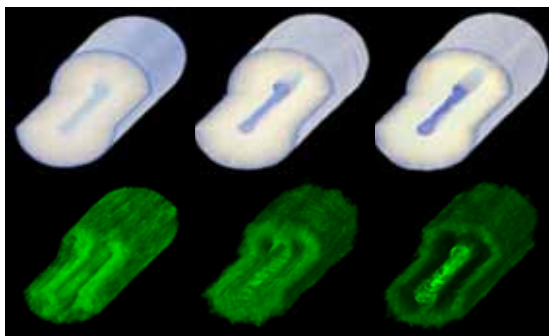
Overview of IFSCC AWARDS 2004

○ Theme: “Continuous Three-dimensional Examination of Interior Hair Structure”

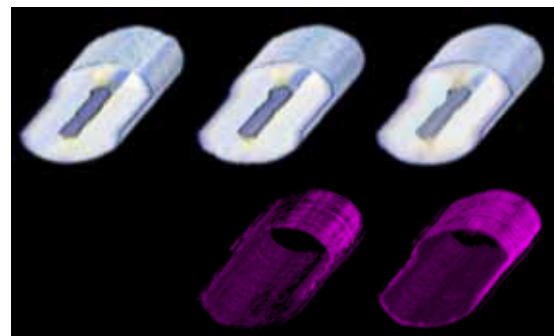
○ Presenter: Kenichi Tanaka, Researcher,

KOSÉ Fundamental Research Laboratories, Advanced Cosmetic Research Laboratory

○ Overview of presentation: Most hair colorings, treatments, and other hair care products work by permeating into the hair. Continuously observing the process of permeation and accurately measuring the changes occurring inside the hair is an extremely important technology for the evaluation and development of hair care products. KOSÉ focused on optical computed tomography (CT) in this regard and built a prototype high-resolution optical CT device that resulted in the development of a completely novel measurement method that enables observation of the inside of hair without damaging it in three-dimensions, in full color, and over time as well. Not only can this method be used for hair care products, it can also be used to observe continuous changes occurring inside hair with hair coloring, which until now was not possible. Measurement methods up to now comprised only electron microscopy to observe cross sections of hair and CT using X-rays. Since the hair is damaged when electron microscopes are used for measurement, the hair cannot be diagnosed again after a single measurement and continuous measurement was not possible. In addition, X-ray CT creates monochrome images and therefore it is not suited to the measurement of the effects of bleach and hair coloring. Therefore, KOSÉ researchers believed that if the conditions inside the hair could be seen in color and changes occurring observed over time, it would be very useful in evaluating hair care and coloring products and would support the development of even more effective products. We thus began research in 2002, which led to the development of the technology announced at the 23rd IFSCC Congress.



Before bleaching After 30 min. After 60 min.
Changes occurring inside hair during bleaching
Upper row: Color image
Lower row: Distribution of melanin pigment
(shown in green)



Before coloring After 10 min. After 30 min.
Changes occurring inside hair during coloring
Upper row: Color image
Lower row: Distribution of coloring (shown in pink)