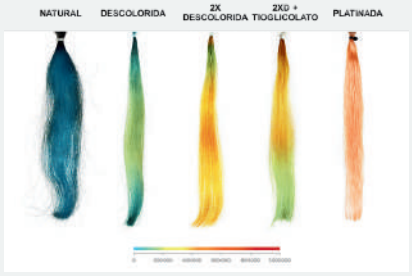
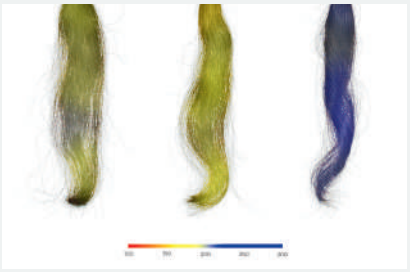
Grupo kosmo science

HAIR CARE

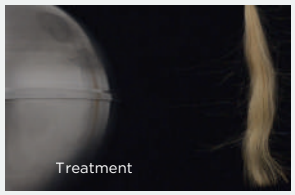
INNOVATIONS IN HAIR EVALUATION METHODS





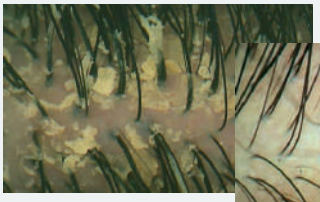


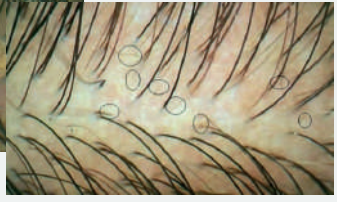












Damage Map

- Evaluation of surface damage
- Easy visualization of results
- Observation of damage along the hair fiber
- Exclusively developed damage scale

Hair Symphony

- Measurement of cuticle condition
- Transformation of roughness into frequencies that can be translated into sounds
- Detection of each product's unique sound signature

Hydration Map

- Measurement of water evaporation enthalpy along the fiber by DSC (Differential Scanning Calorimetry)
- Easy visualization of the hydration state of the hair fiber
- Use of specialized software
- Exclusive hydration scale

Van de Graaff Sphere

- Frizz control through static charge on hair
- Visualization of static reduction effect, applicable for demos
- Distinctive evaluation method

Pillow Effect

- Method developed to address consumer concerns
- Simulation of human head weight and pillow surface movement
- Measurement of hair fiber organization levels before and after a simulated night of sleep

Scalp and Hair

- Growth of New Hair Fibers
- Anti-dandruff
- Build-up effect
- Hair loss and growth stimulation
- Hair density and thickness
- Gray hair recovery
- Scalp health: flaking, dryness, erythema, and irritation signs
- Restoration of natural hair color



TECHNOLOGICAL PLATFORMS

Spectrophotometry | Fluorescence | Mechanical Properties | DSC (Differential Scanning Calorimetry) | Optical Microscopy | SEM (Scanning Electron Microscopy) | Imaging Tests | AFM (Atomic Force Microscopy) | Controlled Humidity and Temperature Chambers | Simulation of Consumer-Perceived Properties | Thermal Resistance | Anti-Breakage

Photoprotection and Antioxidation

• Cysteine oxidation (FTIR – ATR) • Tryptophan fluorescence • UV exposure simulation protocol • Radical protection factor

Anti-Pollution

• SEM – EDS (Scanning Electron Microscopy – Energy Dispersive Spectroscopy) • Environmental pollution simulation • Swimming pool and seawater simulation • Detection of heavy metals (Cu+ and Fe+) • Anti-pollution effects against cigarette smoke and black carbono • Sebum removal

Mechanical Properties

• Tensile strength • Flexibility • Reduction of combing force • Smoothness (Ring Test) • Hair detangling • Resistance to breakage from repeated brushing

Thermal and Surface Properties

• Resistance to hair dryer and flat iron • DSC (Differential Scanning Calorimetry) • Hydrophobicity • Contact angle • Hydration

Imaging Techniques

• Reduction of frizz and volume • Curl retention • Natural movement • Prevention and repair of split ends • Damage reduction • Electron microscopy • Shine in curly hair

Optical Properties

• Color durability • Anti-yellowing effect • Shine • Wash resistance

Other Properties

• Product substantivity • Drying speed and kinetics

Copyright © 2025 Kosmoscience. All rights reserved.
This document may not be reproduced, in whole or in part, by any means or process, nor disclosed electronically without prior written authorization from Kosmoscience.

www.kosmoscience.com
kosmoscience
grupokosmoscience