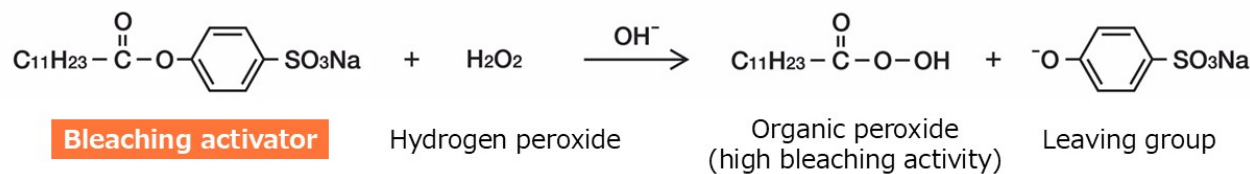


Bleaching Activation Technology

A technology that boosts the performance of liquid oxygen-based bleaching for use on colored and patterned fabrics. Hydrogen peroxide (H_2O_2), the bleaching agent, is combined with a bleaching activator that reacts in the wash solution. The highly reactive species generated by this reaction boosts bleaching performance.

<Unique Points>

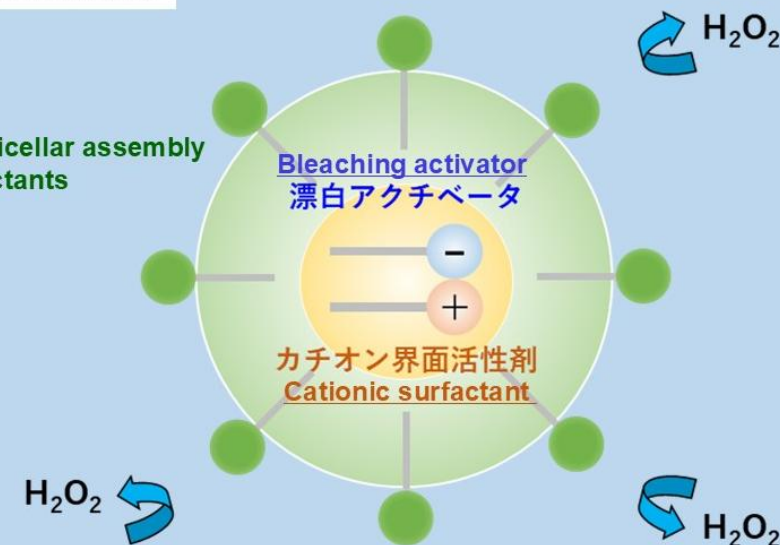
Rather than developing a new ingredient to replace H_2O_2 , the idea was to leverage its reactivity to build a higher-performance bleaching system.



The formulation is designed so that H_2O_2 and the bleaching activator do not react inside the product container. The activator is encapsulated within capsule-like surfactant aggregates, preventing it from encountering H_2O_2 .

In-product schematic

A capsule-like micellar assembly
formed by surfactants



Bleaching Activation Technology

<Key Benefits>

- Enables the decomposition of stain pigments alone, without damaging clothing fibers or dyes.
- It can be used on colored and patterned fabrics, and in addition to breaking down stain pigments, it also delivers disinfection and deodorization performance.
- Helps consumers easily address stains, unpleasant odors, and germs on clothing at home.

<Link to Other Contents>

- Japan Soap and Detergent Association (JSDA) website:
Bleaches—Memo Sheet / Soap & Detergent Knowledge / Basics of
Soaps and Detergents (Japanese only)
https://jsda.org/w/03_shiki/#kiso

<Concerned Research Areas>

- Product Development Research:
 - Fabric & Home Care
<https://www.kao.com/global/en/innovation/research-development/product-development/fabric-and-home-care/>
- Fundamental Research:
 - Material Science
<https://www.kao.com/global/en/innovation/research-development/fundamental/material-science/>
- Production Technology
<https://www.kao.com/global/en/innovation/research-development/fundamental/production-technology>