

Abstract Submitted
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Optimizing the use of surfactants and water with foams: a comparison between soapy solutions and foams for sebum detergency FREDERIC RESTAGNO, PAULINE VALOIS, PAULINE PETIT, Universit Paris Saclay, COLETTE CAZENEUVE, LUC NICOLAS-MORGANTINI, LOral, Research and Innovation, EMMNAUELLE RIO, Universit Paris Saclay, GUSTAVO LUENGO, LOral, Research and Innovation — Human sebum is excreted at the skin surface by the sebaceous glands. Surfactants are the core ingredients of shampoos and other cosmetics to eliminate the excess of sebum as detergency is the classical mechanism used for hair cleaning.. In this study, we add a precise amount of sebum on different hair. We developed a new protocol to measure the cleaning efficiency of surfactant solutions and foams made with the same surfactant solutions based on a spectroscopic method. More precisely, we add a well-controlled amount of colored sebum, we clean the hair with our test foam or solution and we remove completely the unwashed sebum. The sebum remaining after washing is quantified by visible spectroscopy. We tested either classical detergents such as SLES at different concentrations or white egg. The studies were performed on natural or bleached hair. In all the studied case, it was not possible to observe any difference in the cleaning efficiency between the bulk solutions and the foams made from the solutions. This study could allow to develop new shampoos formulations or dispensers in order to replace washing solutions by foams that could have the same cleaning efficiency with a lower amount of surfactants; diminishing the water rinsing needs during application.

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