

ABSTRAK

Dewasa ini, masyarakat Indonesia menunjukkan ketertarikan pada produk kosmetik dan skincare berlabel alami. Banyak wanita beralih pada produk herbal dan natural. Padahal, sebagian besar label alami dalam produk kecantikan yang telah komersil, masih mengandung bahan kimia dan mampu menimbulkan dampak negatif yang berbahaya bagi tubuh. Sayangnya, penggunaan pengawet pada produk kecantikan alami tidak dapat dihindari karena bahan baku utama organik rentan pembusukan dengan daya simpan yang rendah. Penelitian sebelumnya, merancang *cooling box* untuk penyimpanan ikan pasca panen berbasis TEC sebagai penghasil suhu rendah, dan sumber energi listrik dari panas cahaya matahari yang dapat menjaga suhu *cooling box* tetap dingin hingga malam hari dan terbukti mampu meningkatkan daya simpan dan mutu serta menghemat biaya hingga 2x lipat dibanding cara konvensional. Peneliti pun tertarik melakukan diversifikasi nilai guna *cooling box* melalui beberapa perombakan desain berbentuk "pouch" sebagai media praktis penyimpanan dan penjamin mutu dari produk perawatan kecantikan berbahan dasar 100% alami tanpa tambahan senyawa kimia apapun. Untuk mengetahui keberhasilan inovasi *cooling pouch* dalam menjaga mutu dan daya simpan produk, dilakukan uji coba meliputi tiga aspek yakni biologi, fisik, dan kimiawinya yakni pengujian organoleptik, pengujian ALT Bakteri dan Jamur, dan pH. Diharapkan kedepannya, era baru perawatan kecantikan herbal dan natural bagi wanita Indonesia dapat maksimal tanpa perlu mengkhawatirkan efek samping penggunaan pengawet kimiawi.

Kata Kunci : Thermoelectric, Skincare, Alami, Pouch

ABSTRACT

Nowadays, Indonesian people show an interest in cosmetic and skin care products that are labeled as natural. Many women turn to herbal and natural products. In fact, most of the natural labels in commercial beauty products still contain chemicals and can cause negative impacts that are harmful to the body. Unfortunately, the use of preservatives in natural beauty products cannot be avoided because the main organic raw materials are susceptible to spoilage with low shelf life. Previous research, designed a cooler box for post-harvest fish storage based on TEC as a low-temperature generator, and a source of electrical energy from the heat of the sun that can keep the cooler box temperature cold until night and has been proven to increase shelf life and quality and save costs up to 2x. fold compared to conventional methods. Researchers are also interested in evaluating the use of coolers through several design changes in the form of a "pouch" as a practical medium for storage and quality assurance of beauty care products made from 100% natural ingredients without the addition of any chemicals. To determine the success of the cooler bag innovation in maintaining the quality and shelf life of the product, a trial was carried out covering three aspects, namely biology, physics, and chemistry, namely organoleptic testing, Bacterial and Fungal ALT testing, and pH. In the future, a new era of herbal and natural beauty treatments for Indonesian women can be maximized without worrying about the side effects of using chemicals.

Keyword : Thermoelectric, Skincare, Natural, Pouch

