

## **Process Technologies and Quality Controls of Plant Ingredients for Ecological and Organic Cosmetics**

Aquino, R.P.1

*Today's consumers are adopting a more holistic approach to wellness, looking for healthy, "green" alternatives that also deliver outstanding performance and enhance their sense of well-being. The ecological, organic, and natural market is in full expansion. Many brands today use the word "Natural" for marketing their products containing only a few natural or ecological ingredients. Thus, several organizations created labels to help the consumer to differentiate a product hypothetically natural and organic from naturalness. Differences exist between standards for the organic dietetic products, food complements, and cosmetics on a world level, especially with regard to the minimal percentage of ingredients of organic culture imposed as well as the processes authorized. These divergences complicate the introduction of a single and clear label for the consumers.*

*Moreover, the increasing requirements of the consumers for certified "Ecological" and "Organic" cosmetics able to preserve natural resources of the planet led to promote academic scientific research and the know-how of the manufacturers on natural ingredients. Italian natural cosmetics outline is part of the growing but unmethodical organic beauty markets in Europe. Thus, in order to help the choice of natural plant ingredients for beauty products, it is important keep detailed characteristics of the plant extracts able to guarantee the formulation of organic cosmetics.*

*In response to this demand from 2004, Res Pharma, an Italian company working on natural ingredients and the Research Group in Cosmetics Science and Technology of the University of Salerno have studied some plant extracts of the Mediterranean area. Based on their scientific expertise and on a team of professionals and technicians, a joint-project of research "BioRes®" was then elaborated. The objectives of the research project are: to develop extracts as cosmetic bioactive ingredients formulated starting from natural raw materials, resulting from the vegetable matter; maintain a priority for Mediterranean plants from organic sources; test on cell cultures and/or reconstituted human epidermis; use some soft conservatives (benzoic acid, sorbic acid etc); development of soft technology for the preparation of concentrated plant extracts and derivatives; production of extracts titrated in biological markers of efficacy and in chemical markers of quality; promotion of natural substances of a superior ecological quality; and promotion of the continuous technical innovations in the cosmetic area.*

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1 Dipartimento di Scienze Farmaceutiche, Università degli Studi di Salerno, Italy.