

# Abstracts

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## Journal of the Polish Society of Cosmetic Science, “Wiadomości PTK” Vol. 10, No 3, 2007\*

Materials Of Plant Origin In Cellulite Treatment;  
Application and Perspectives

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Cellulite is a term used to describe changes that can be seen very often in post pubertal women. It appears in the area of thighs and buttocks, manifests by irregular skin contours and reflects a variety of conditions introduced in the scientific literature as adiposis edematosa or gynoid lipodystrophy. According to the scientific literature the range of symptoms characterising cellulite includes disturbed fat metabolism, fluid accumulation, microcirculatory breakdown as well as alteration in the structure of dermal collagen and elastic fibres. All factors mentioned above results in the condition which is popularly known as “orange -peel skin”. So, what the cellulite really is – is it only an aesthetic problem? What happens in the tissue giving such an effect?

Originally presented at the CHI Personal Care & Homecare Ingredients Exhibition & Conference 2006, Warsaw – Poland, October 25-26, 2006

Cosmetics and the 5 Senses: Perception and Description

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Our senses are stimulated along all consumer behaviour stages, from purchase to usage. Sensory analysis is one of the most powerful tools to help companies to drive product development based on accurate studies of

sensations. Expert (trained) panels are used to precisely measure the levels of sensory properties, for instance for the comparison of new variants versus a reference or for the evaluation of a new supplier or for an innovative process. They also give a detailed picture of the competitors present on the market and may be used to identify new products opportunities as defined through their sensory characteristics (preference mapping).

Originally published in the SÖFW-Journal 133(5) 2007

Skin Deep: Tradition and Innovation in Skin Cleansing

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Wiping off the undesired materials which coat our skin surface is not a simple task. Odour elimination, detachment of skin cells debris, dissolution of oxidised sebum lipids, reduction of the bacterial flora and elimination of pollution materials and make-up traces are quite easily obtained, but this is not the only required group of actions, at least in modern times, when the respect of the skin, now considered a protected environment, is taken into consideration. Absence of immediate and delayed irritation, respect of the resident flora and of barrier lipids, easy and thorough rinsing, maintenance of skin pH, restoring the normal TEWL values, activating skin wellness and appearance are key requisites. Providing pleasant sensory characteristics, not only immediately during cleansing, but also in the long term, are now essential requirements in daily hygiene practice. All these needs are quite rapidly changing the adopted ingredients and shaping the physical forms of modern cleansing products.

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\* These abstracts appear as they were originally published. They have not been edited by the *Journal of Cosmetic Science*.

### The Influence of UV Radiation On Nucleic Acids

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Damages in DNA nucleotides evoked by UV radiation are not mutations yet. These are just permutation changes. As it was mentioned above, we can say about mutations only if the primary changes are not removed by repairing systems. Two processes repairing the defects caused by UV radiation are known at present time. The first one uses the photolyase enzyme, which cuts photodimers into monomers under the influence of visible light together with flavoprotein chromophores (i.e. FADH<sub>2</sub>). The second mechanism of damage removal is repairing by cutting out. On the contrary to the first process, the presence of the light is not

necessary here. Four enzymatic proteins coded by the genes: *uvrA*, *uvrB*, *uvrC*, *uvrD* take part in this process. The proteins, along with UV endonuclease form repairing complex. The whole system recognizes the place of deformation exerting by dimmers, cut them off and finally polymerase DNA I fills the formed gap. Both systems are the basic defence line in all organisms against mutagenic activity of UV radiation. Mutations in genes coding repair proteins follow catastrophic results for all organism. They cause cells' hypersensitivity to UV radiation as it is in case of hereditary disease xeroderma pigmentosum. As a result the sick persons fall ill with a skin cancer much more frequently. Despite the ultraviolet radiation activity on nucleotides is very harmful, the repair systems of the organisms remove its undesired results very effectively if only they are not damaged or if the UV doses are not too high, what do sunbathing and solarium amateurs usually forget.