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Oral Communication

NEW TECHNOLOGIES FOR COSMETIC APPLICATIONS

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Olfactory stimulation and psychophysiological measurement of hexenyl methylbutanoate by EMG technique and other physiological parameters

Abstract This project aims to study the emotional responses conveyed by the hexenyl methylbutanoate molecule, a captive developed and patented by Symrise, in comparison with a placebo, an odourless mineral oil. During this study, at least 30 subjects participated in a series of tests. Psychophysiological parameters were recorded following the inhalation of the olfactory stimuli. Physiological parameters such as peripheral cutaneous blood flow, heart rate, electrodermal response and facial electromyography of the zygomatic muscle and the corrugator supercilii muscle were recorded. The psychological aspect of the experiment was based on the subjects' mindset, measured using questionnaires administered before and after the physiological tests (T0 and T1). The physiological results showed that hexenyl methylbutanoate tends to reduce peripheral cutaneous blood flow, heart rate, electrodermal response and the activity of the corrugator supercilii muscle and tends to make the zygomatic muscle contract more in comparison to the placebo. All these results indicates that the tested fragrance raw material has the ability to promote relaxation in the tested subjects. The results of the questionnaires corroborated the opinion of subjects where significant effect is noticed but no difference was obtained on the “feeling well” and “happiness” after smelling. In this study, the psychological results support the physiological results in which highlight that Fructate® does indeed have a relaxing effect.

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