


Electronic spray formation: state-of-the-art at Aerosol & Dispensing Forum

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The lectures and exhibition next 8th and 9th February will be a privileged opportunity to meet and explore not only spray and foam formation techniques but also the dispensing of powders or liquids with different viscosities in the health, beauty, food and DIY sectors and in technical applications.

The many « electronic spray formation systems » are very much in vogue. It is a particularly innovating field with a rapidly expanding field of application. The Innovation Workshop on this topic will enable brand and packaging professionals to take stock of « off-the-shelf » or emerging technologies and to exchange with experts in these technologies with a view to launching projects. Discussions will focus, in particular, on :

Which techniques for which applications ?

Spray formation techniques will be explored, by means of :

- Perforated grids for low viscosity liquids in order to obtain fine particles, soft, non-wetting sprays, mists reminiscent of vaporizers. A technique very often used for beauty products, skin moisturizing, or creating atmosphere ;
- Generation of a pressure wave on a surface, a technique that requires a very precise water height, used in certain essential oil dispensers for example ;
- Reservoirs vibrating on a grid ; the vibrating plate must have a very precise frequency, and power. This technique is used for asthma nebulizers for example.

Applications, the field is vast: nebulization of face lotions, skin moisturizing, atmosphere, the diffusion of smells, background scent, health applications: lung diseases, stopping smoking, feeling of satiety, etc. We can expect consumers, familiar with the softness of mists, low viscosity lotions, very pleasant applications on-the-move, will be curious and keen on new services.

These techniques have now been fully mastered. They first appeared in Asia, which offers many models and has considerable experience in numerous fields of application, particularly Japan, Taiwan and Korea.

Place of aerosol and complementarities

First of all, aerosol is much simpler, the technique is fully mastered and the economic balance is in its favour. Furthermore, with electronics, it is very easy to play with the size of the particles, which depends on the dimension of the holes. Possibilities for hybridization enable us to envisage very soft, ultra fine sprays, with a very low spray velocity, which will lead consumers to spray at a close distance, non-wetting sprays for cosmetics, with a very fine mist reminiscent of vaporizers, etc. Let us bear in mind the multiple functions of a Swiss knife !

Prospects

Developments in this field are still in their early days, sometimes for economic reasons but above all owing to the extreme novelty of the products. There is every reason to believe that development will be as fast as in other fields once consumers have understood and appreciated the value added by these systems. Just think of mobile phones, the shift from mercury thermometers to contactless measurement, the impact of iTunes on the music market and current developments on the book market with the advent of ebooks !

This Innovation Workshop will be a good opportunity to think about new products and eco systems. We hope to see you in large numbers to partake in this work moderated by Nicolas Duru, Electronic Lab. Manager, L'Oréal, and Jay Gouliard, Vice President Global Strategy and Innovation materials & labels business, Avery Dennison.

More info:

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