



POLY-SENSORIAL TEXTILES  
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Clothing has moved beyond the scope of simple garments... It is the ultimate refuge for innovations which allow us to live better, differently and more intensely.

## TRAVEL TO THE HEART OF POLY-SENSORIALITY!

Interfilière accompanies evolution in consumer behaviour: far from being "disenchanted" citizens, consumers are ever on the look out for new experiences, change, new emotions.

In line with their philosophy, Interfilière Paris and Interfilière Hong Kong trade shows, in partnership with the French Knitwear and Lingerie Federation, are putting emphasis on innovation and the future more than ever before.

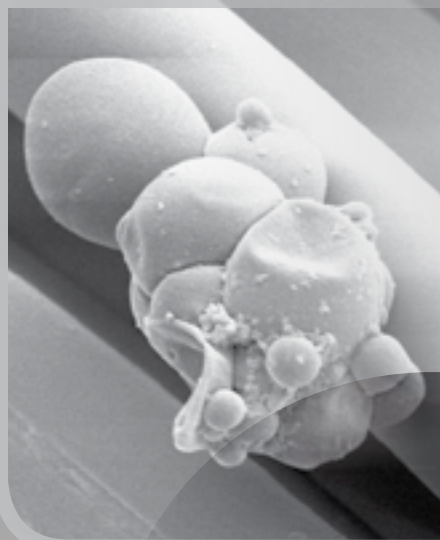
With the interest and curiosity of industry professionals in the latest novelties in fabrics and technology, Interfilière Hong Kong is pioneering the POLY-SENSORIAL zone in Asia offering a new generation of functional textiles with long-lasting action, durable on well-being, beauty and health.

In this fast moving world, take time out to learn about novelties and create new relationships with industry experts, specialists in woven fabrics, knits and textile manufacturers.

*In nature, it is the fruit that is edible and not the seed. The same is true of fashion. It is the innovative garment, and not the innovation, that customers will wear.*

I wish you a fruitful trade show, full of opportunities!

DELPHINE NGUYEN  
Exhibition Manager  
Interfilière Hong Kong



SIMONE PÉRÈLE



# Enjoy SENSATIONS

Well-being goes far beyond the simple idea of feeling "well".

"In Europe, it has become a veritable lifestyle, a conscious approach to our individual existence, based on the idea that good health and quality of life have a positive impact on our metabolism, stress levels and daily tensions".

In Asia, this quest for harmony and well-being is ancestrally rooted in different cultures, through the precepts of Taoism and currents of thought such as Confucianism and Buddhism.

The well-being market is enjoying unprecedented success and has started to take on new forms:

- Alternative medicines from Asia are becoming more widespread, such as the Chinese Qi Gong and Tai-Chi-Chuan or Ayurveda from India.
- The annual average basket of cosmetic products of an American or an European is in the region of €90. In the new markets (Latin America, Africa, Middle East, Pacific Asia -excluding Japan-), it amounts to

about €14, with an increase of about 13% per year (source: L'Oréal).

- Just like cosmetics, essential oils are taking retail outlets by storm, revisiting their original properties, and discovering new virtues on a daily basis. They have found their way into textiles.

So, the market for products that improve well-being and health is flourishing, and offers numerous opportunities for innovative and functional textiles. They occupy a growing place in collections, be it ready-to-wear, lingerie or swimwear.

Within this context, cosmetic textiles and bioceramic textiles, which were still considered to be gadgets in the noughties, are now experiencing strong growth as these anti-aging and beauty products meet consumer demand: slimming leggings, firming tights, moisturising bodies...

Developing the effects of these different innovative technologies is now an essential research axis in order to develop this still emerging market.



## COSMETIC TEXTILE FOCUS

### What is a "Cosmetic Textile"?

The definition of a cosmetic textile was officially established by the European Committee for Standardisation (CEN): "A cosmetic textile is a textile article that contains a substance or a preparation that is intended to be released sustainably on to the different superficial parts of the human body, especially the skin, and which claim one (or more) particular property(ies) such as cleansing, perfume, change of appearance, protection, maintenance in good condition or correction of body odours".

In this way, cosmetic textiles are born from the alchemy between cosmetics and textiles: billions of micro-capsules that enclose a cosmetic slimming, moisturising or firming solution are impregnated into a pair of tights, leggings and items of lingerie.

By the simple action of the fabric rubbing against the skin, the active ingredients contained in the micro-capsules are progressively released onto the skin, throughout the day, without hindrance or effort...

This is an original and high-performance technology for effective cosmetic treatments that complement traditional cosmetic treatment programs.

### What are, today, the main directions of the cosmetic textile market?

Dermocosmetics (skin care): slimming, toning, moisturising, anti-age. This is currently the most tapped into market and is mainly aimed at the lingerie sector.

Aromatherapy: the cosmetic textile releases active ingredients which are primarily essential oils (relaxation, perfume). For instance, these textiles can be found in bed linen items.

#### SOME BIOACTIVE INGREDIENTS

##### VEGETABLE OILS

- Sweet almond: protects the skin against the cold and external aggressions.
- Avocado: regenerates dehydrated skin.
- Argan: revitalises dry skin.

##### BUTTERS

- Shea: regenerates the skin after prolonged exposure to the sun.
- Mango: regenerates wrinkled and mature skin.

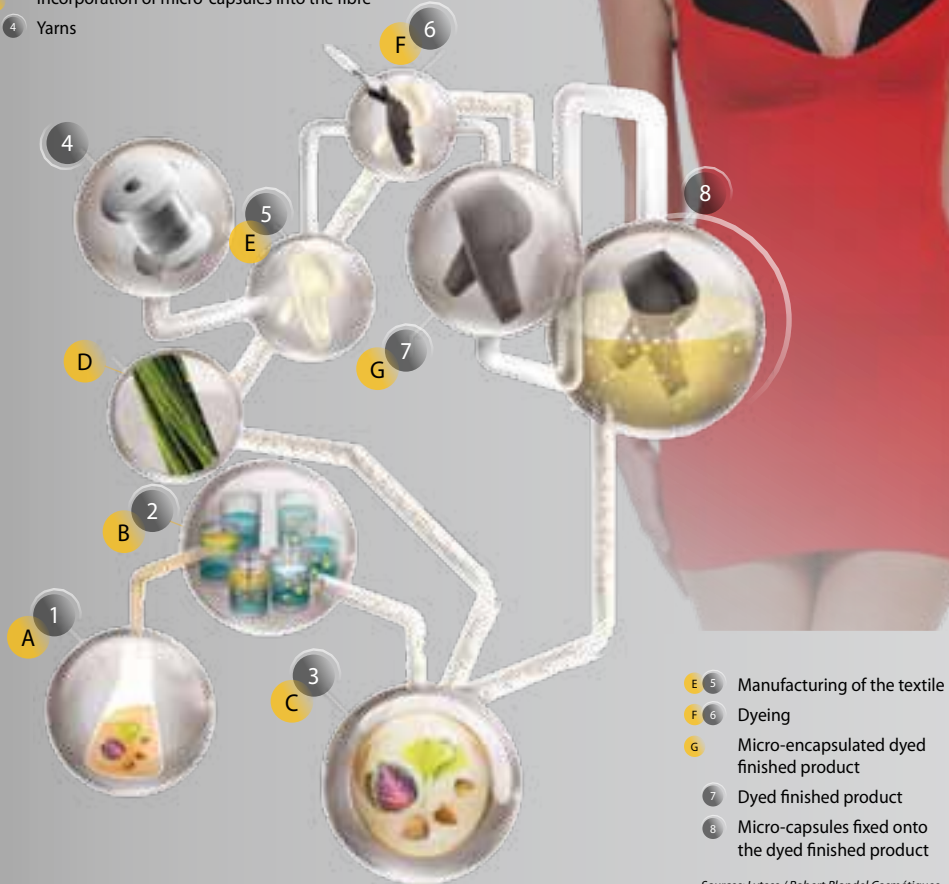
##### TRIED AND TESTED ACTIVE PRINCIPLES

- Caffeine: combats the storage of fats in the organism.
- Forskholin: burns fat whilst maintaining muscle mass.
- Hyaluronic acid: moisturises and anti-age treatment.



## MANUFACTURING A COSMETIC TEXTILE

- A 1 Formulation of active cosmetic ingredients
- B 2 Production of micro-capsules
- C 3 Micro-encapsulated active cosmetic ingredients
- D Incorporation of micro-capsules into the fibre
- 4 Yarns



- E 5 Manufacturing of the textile
- F 6 Dyeing
- G Micro-encapsulated dyed finished product
- 7 Dyed finished product
- 8 Micro-capsules fixed onto the dyed finished product

Sources: Lytess / Robert Blondel Cosmétiques

### TWO MAIN METHODS FOR FIXING MICRO-CAPSULES:

Functionalisation of fabrics (process to ): micro-capsules are fixed on the external surface of the fibre of the finished product.



Process: Robert Blondel Cosmétiques

Functionalisation of fibres (process to ): micro-capsules are incorporated into the fibre.



Process: Nurel - Novarel

## Is there quality control on the cosmetic textiles?

Because of its cosmetic claims, a cosmetic textile product must be evaluated in terms of health guarantees before it can be brought to market.

Within this framework, in Europe, the toxicological profile of all components must be controlled by external laboratories and the cosmetic ingredients incorporated in the micro-capsules must be on the list of substances authorised by the Cosmetic Regulation (CE 1223/2009).

In Asia, specific cosmetic regulations apply in China, Japan, South Korea and ASEAN countries. But as Asian regulations are constantly changing, the texts need to be analysed in depth.

Finally, in order to gain legitimacy and to set themselves apart from those who do not provide the same guarantees, French manufacturers, in collaboration with the BNITH (the French Textile & Apparel Industry Standardisation Office), launched in 2005, a draft set of standards for the manufacture of cosmetic textiles. Initially aimed at the French market, this standard was taken on board by the European Committee for Standardisation (CEN) and published, in January 2010, under the reference CEN/TR 15917. It guarantees methods of analysis and tools for testing the innocuity of products, and for validating their efficiency and durability.

### EUROPEAN & ASIAN COSMETIC REGULATIONS

	EUROPE	CHINA	JAPAN	SOUTH KOREA	ASEAN
Relevant authority	National committees of each member state	China State Food and Drug Administration (SFDA)	Minister of Health, Labor and Welfare (MHLW)	Korean Food and Drug Administration (KFDA)	National committees of each member state
Main regulatory basis	Cosmetic Regulation (CE 1223/2009)	Over 10 texts, the main ones being the "Regulation for the hygiene supervision of cosmetics" and standard GB 5296.3-2008	Pharmaceutical Affairs Act (PAA): refer in particular to article 61 for labelling rules	Korean Cosmetic Products Act (KPCA), as well as the guide relating to claims	ASEAN Cosmetic Directive (ACD): labelling rules are listed in annexe II

## Is it scientifically proven?

Effectiveness cannot be declared, it must be proven!

In order to validate the claims made and the true effectiveness of their products, the manufacturers have tests carried out by ISO 9001 certified laboratories. Measurements are taken before, during and after wearing the cosmetic textile, on a panel of volunteers (30 to 60 people, depending on whether it is a simple or double blind test).

## Main cosmetic textile "products" available on the market:

- Cosmetotextiles-Inside\*: Robert Blondel (France).
- Novarel\*: polyamide yarns - Nurel (Spain).
- Skintex\*: Cognis (Germany).

## What is a bioceramic textile?

A bioceramic is a mixture of volcanic rocks that have high oxide content. The special feature of this mixture is that it captures and reflects the waves given off by the human body in the so-called Far Infrared Rays (FIR).

These FIR waves are reflected inside the body and enter into resonance with the organism's water molecules which move about. This movement creates energy and gives it back to the human body which is progressively warmed, thus procuring a pleasant feeling of comfort and well-being.

This concept was developed in the middle of the noughties, in the form of a textile membrane which brings together the rock mixture with a polymer (polyurethane).

The technology has evolved with two other manufacturing processes, in order to adapt to all types of material (knitted, warp and weft) and to meet the different needs of the textile industry:

- Bioceramic particles are directly incorporated at the heart of the fibre during the spinning stage.
- Bioceramics are applied by textile printing (transfer or serigraphy).

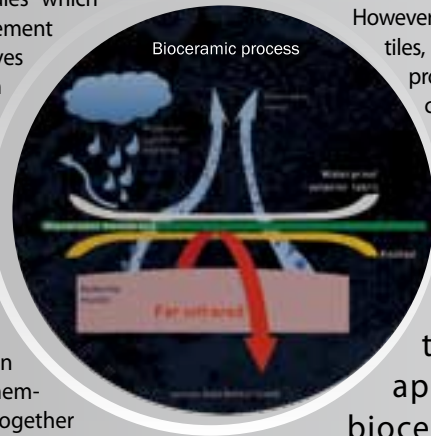
Apart from these textile applications, bioceramics are also used in different

domains such as heating, automobiles, cosmetics...

## What are the benefits of bioceramic textiles?

This technology makes numerous claims: good thermal regulation, muscle stimulation, improvement of blood flux, cellulite reduction elimination of toxins, in particular lactic acid which causes cramps...

However, as with cosmetic textiles, manufacturers must provide proof for the claims made. They must therefore get certified laboratories to validate the effectiveness of their products.



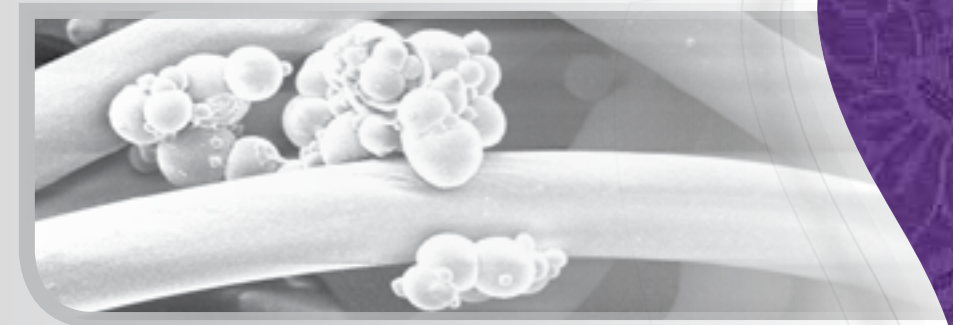
## What are the areas of application for bioceramic textiles?

They were initially reserved for outfits of top-level sportspersons (car racing, winter sports...) but can now be found in several domains:

- Ready-to-wear, in particular jeans.
- Sportswear (running t-shirts) and outdoor (technical jackets).
- Bed linen (duvets).
- Professional clothing (to prevent musculo-skeletal problems).
- And of course, in lingerie and home wear (leggings, pyjamas...).

## Main bioceramic "products" available on the market:

- Emana®: polyamide yarn 6.6 – Rhodia (Brazil).
- MecPor Superlife®: polyurethane membrane - MecTex (Italy).
- Nilit® Innergy: polyamide yarn 6.6 – Nilit (Israel).
- Gold Reflect'Line®: membrane (70% polyurethane and 30% ceramic). Also available as a coating – HT Concept Diffusion (France).



## What's NEXT?

Today, a new generation of poly-sensorial textiles has appeared which bring together cosmetic ingredients and the latest innovations in fibre and textile structures (ceramic fibres, 3D knitting, shapewear, fibres with special cross section, special finishing treatment...).

In this way, they have really found their place in the slimming market and are now looking to conquer other segments such as sport, beauty, and even medical.

Fibre and fabric manufacturers offer more innovative products than ever to meet the varied demands of consumers.

*Science has not yet had its last say and research is ongoing: in 20 years, 80% of textiles will be technical or functionalised!*

## Take advantage of Interfilière's Hong Kong to meet knitting manufacturers presenting their collections of poly-sensorial textiles

### BRUGNOLI GIOVANNI

[www.brugnoli.it](http://www.brugnoli.it)

Booth N° A01

Brugnoli was founded in 1952 in Italy. It is integrated in dyeing, produces circular knitted fabrics for lingerie and swimwear brands all over the world. It studies developments with customers: shapewear fabrics yesterday, cosmetic textiles today, and recycled textiles tomorrow.

### CARVICO

[www.carvico.com](http://www.carvico.com)

Booth N° D26

Strengthened by over 50 years of experience in the textile industry, Carvico has gradually consolidated and expanded its global reputation in the warp-knit fabric sector.

### EUROJERSEY

[www.eurojersey.com](http://www.eurojersey.com)

Booth N° D25

In the warp-knit fabric sector, Eurojersey is well-known at international level for the high-performing characteristics of its Sensitive® fabrics.

### JERSEY LOMELLINA

[www.jerseylomellina.com](http://www.jerseylomellina.com)

Booth N° D26

Jersey Lomellina's mission is to offer the market fabrics designed for underwear, sportswear, swimwear and leisure wear that provide the wearer with a feeling of well-being and comfort combined with elegance and style.

### PENN TEXTILE SOLUTIONS

[www.penn-ts.com](http://www.penn-ts.com)

Booth N° B11

Penn Textile Solutions has the benefit of 50 years' experience with elastomeric knitted textiles. From Germany, it is an internationally-minded company with the expertise to develop and produce innovative textiles for its wide variety of customers, thanks to its own knitting, dyeing and finishing machines.

### PIAVE MAITEX

[www.piavemaitex.com](http://www.piavemaitex.com)

Booth N° B05

Piave Maitex, founded in Italy one century ago, is leader in the creation and industrialisation of stretch fabrics, and is constantly engaged in research and innovation. Precursor and market leader in the shapewear era, Piave Maitex is today fully committed to its cosmetic textile research program.

### RICAMIFICIO PAOLO

[www.ricamificiopaolo.it](http://www.ricamificiopaolo.it)

Booth N° A12

Ricamificio Paolo produces high quality embroideries (guipure, all over, motifs, bands) for the lingerie market. Its products are mostly made in Italy (including creation and technical support) with also two new delocalized collections made in Europe and in Asia.

### ROBERT BLONDEL COSMETIQUES

[www.robert-blondel.fr](http://www.robert-blondel.fr)

Booth N° A11

Robert Blondel Cosmétiques is specialised in formulation of lipophilic cosmetic ingredients and micro-encapsulation. In the specific area of cosmetic textiles, Blondel Group is present across the entire production line: development of garments, dyeing, cosmetic grafting on textiles...

### TEXTILE PRESTIGE

[www.tpc.co.th](http://www.tpc.co.th)

Booth N° B24

Textile Prestige is a vertically organised company specialised in knitting, dyeing and finishing materials for underwear garments: elastomeric fabrics, seamless bodies, elastic tapes, torchon laces, embroidery laces, hooks & eyes, bias tape and shoulder pads.

### WILLY HERMANN

[www.willyhermann.com](http://www.willyhermann.com)

Booth N° B02

Willy Hermann was founded in 1934 in Austria. It is a specialist of knitted fabrics, especially for lingerie sector: circular knitting, warp knitting, fully fashion and seamless. Renowned internationally for innovation, Superfine® is its trademark for all fine gauge knitted fabrics.

Many thanks to the experts who have contributed to the success of the conference and the poly-sensorial forum

### Conference

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[www.cosmeticwear.com](http://www.cosmeticwear.com)

LYTESS

[www.lytess.com](http://www.lytess.com)

SIMONE PERELE

[www.simone-perele.com](http://www.simone-perele.com)

Eurovet Asia and the Hong Kong Polytechnic University have been working in close collaboration over the past several years in producing prototype projects for display at Interfilière Hong Kong. This year, students from the programme BA (Hons) in Fashion and Textiles with specialism in Intimate Apparel have been working on the Cosmetic Textile project under the supervision of Dr. Kristina Shin, lecturer of the Institute of Textiles and Clothing of the Hong Kong Polytechnic University.

Prof. Winnie Yu is the Director of the ACE Style Institute of Intimate Apparel under the Institute of Textiles and Clothing as well as the intimate apparel specialism coordinator of the above BA program.

The prototype project is realised in cooperation with renowned fabric manufacturers exhibiting at Interfilière Hong Kong. This unique opportunity gives the students the possibility to showcase their talent and be recognised by industry professionals.

*The Interfilière Hong Kong team would like to thank all fabric suppliers and students that have contributed to this project. It was a great pleasure to work with you. We would also like to express thanks to the students for the creativity and hard work that they have put into the design of the prototypes.*





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