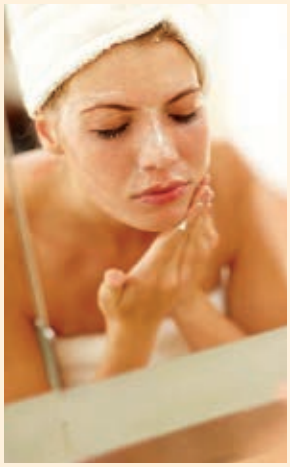
Microplastic replacements launched

Evonik Industries is launching two new products to replace microplastics in peeling products: the specialty silica Sipernat 2200 PC and Sipernat 22 PC. A number of prominent international cosmetics companies already use the new specialty silica products in shower gels, facial care and body peeling products based on the prototypes released by Evonik in late 2013. Sipernat 2200 PC and Sipernat 22 PC are listed as nature-identical by the International Natural and Organic Cosmetics Association (Natrue), a globally active association for the promotion of natural skin care. This means the substance (in this case, silica or SiO_2) is already found naturally, but is not usually available in the required purity. Cosmetic products have very high purity standards. Although synthetic amorphous silica is identical to naturally occurring silica (such as sand) in chemical terms, its purity is significantly higher than natural silica due to the production process at Evonik.

In the past, cosmetic peeling products frequently contained microscopically small particles of polyethylene and polypropylene. "All leading manufacturers of cosmetics and body care products are currently working to replace abrasive



microplastics particles," explains Andreas Fischer, the head of the Silica Business Line of the Evonik Resource Efficiency Segment. The background of this trend is the public debate about oceanic pollution caused by microplastics. In addition to plastic waste as the main cause, the discussion has also brought up synthetic particles in cosmetics. "The specialty silica Sipernat with its high purity level is an ideal solution because it fully meets the requirements for abrasive particles," notes Fischer.

Peptide aids youthful skin

Nutritional deficiencies have a major impact on the skin, which becomes drier, less firm and wrinkles appear. Thanks to its optimised peptide structure, rich in rice di- and tripeptides that can be rapidly assimilated, Nutripeptides from Silab is an essential comprehensive anti-ageing active ingredient that offsets the skin's nutritional imbalances, boosts its cellular metabolism and increases its defence mechanisms.

Tested *in vitro* using two new technologies (transcriptome analysis and 3D model), in severe conditions of nutritional deficiency, Nutripeptides:

- Stimulates defence mechanisms in response to stress
- Strengthens the barrier function
- Increases protein synthesis in the dermal-epidermal junction and extracellular matrix (collagen VII, collagen I and fibrillin-1).

Tested *in vivo*, Nutripeptides visibly reduces wrinkles. Skin grain is refined and signs of fatigue are erased. Skin is better nourished, toned and radiantly youthful. Nutripeptides is recommended in all anti-ageing products and stress repair products.

COMMENT

Interactivity accelerates formulation development

The in-cosmetics Asia show once again underlined the huge range of ingredients available to formulators in Asia and further afield. I was particularly impressed with the success of the Interactive Formulation Lab which gave visitors the opportunity to get hands on with new technology and processes. This is a key feature of shows such as in-cosmetics Asia and something that cannot be replicated online.

The cosmetics industry is based on sensory experiences and enabling formulators to test out products in this way will accelerate learning for the whole region. Globally, textures are becoming seen as a crucial area for finished products to differentiate themselves from their competition, so we can expect to see a new wave of ingredients on the market offering new texture options to formulators. This will ensure that opportunities such as the Interactive Formulation Lab become even more important as a way to test and develop new sensory experiences.

2015 will be a busy year for the industry in Asia, with PCHi, the new in-cosmetics Korea show coming up in June, as well as a whole host of other events. We look forward to seeing exciting new ingredients to assist trends such as new textures and will report back on them as soon as we can.

Happy New Year!

Richard Scott
Editor

Mild formulations a growing trend

The move towards milder formulations is taking off in Asia, according to IMCD business group director, Gabriele Bonomi. Speaking to *Personal Care* magazine at in-cosmetics Asia, Mr Bonomi said: "More and more there has been consumer awareness regarding this area. Also, more consumers are turning the bottles around to see what the ingredients are in whatever they are buying."

Another key trend discussed was protecting the skin from pollution, which Mr Bonomi said was showing great potential in Asia. "Europe is relatively pollution-free, but in Asia there are many cities with high levels of pollution." This creates a real need for consumers to seek out products that offer protection for their skin against the additional pressures of Asian city life.

IMCD was exhibiting at in-cosmetics Asia and promoting the company's capabilities along with its raw material portfolio. IMCD has a varied product list, including: actives, pigments, preservatives, emollients, sunscreens, rheological modifiers, pigments, solvents, surfactants, emulsifiers, vegetable oils and humectants.

Marketing change

US company, FloraTech, has announced changes to its marketing team. Michele Ward is to move to vice president, Marketing & Business Systems, while Brigid Maloney is to become marketing manager at the company.

FloraTech markets botanically-derived ingredients to formulators worldwide for use in skin care, lip care, nail care, and hair care, in addition to colour cosmetics, fragrance, and body wash products.

Award for services to cosmetics industry

Every two years the French Society awards a prize for services to the field of cosmetology. On 26 November 2014, Jean-Yves Berthon, president of the Greentech Group, was awarded the most prestigious award of the French Society of Cosmetology (SFC – Société Française de Cosmétologie).

Jean-Yves Berthon was a 32-year-old doctor of biology when he founded Greentech in 1992. A few decades later, he presides over a group consisting of three companies, dedicated to the fields of vegetables, marine life and microorganisms: GREENTECH, GREENSEA and BIOVITIS. The Group develops and produces innovative active ingredients for cosmetics, pharmaceuticals and functional food. These ingredients are obtained from complex plants, algae, micro-algae and microorganic mechanisms from all over the world.

With over 100 employees, the group now has an annual turnover of almost €20 million, 80% of which is from the cosmetics market.

Jean-Yves Berthon receives the award from Claudie Willemin of the SFC.

Petrolatum alternative

Amyris is now selling globally a second renewable ingredient under its Neossance brand. Neossance Hemisqualane is a pure, plant-derived, light emollient with high spreadability and proven performance characteristics. This ingredient addresses the emollient market with better performance compared to existing products in this large and growing market.

Neossance Hemisqualane is a natural alternative to petroleum-based paraffins and silicone ingredients. This new offering is an innovative solution to address an even larger market than the company's first emollient, Neossance Squalane, which continues to win market share as one of the world's leading high-end emollients. Neossance emollients offer many high-performance properties that make them ideal ingredients across beauty categories including skin, hair, sun care, makeup and cleansing.

Hemisqualane is an Ecocert-approved natural ingredient and has also received The Natural Seal (NPA) that certifies compliance with the Natural Products Association Standard for Personal Care Products. It is a USDA certified 100% bio-based product.

Award for sustainability

AAK was awarded the Sustainable Ingredient Award for its Lipex SheaLight product. The Sustainable Beauty Awards is organised by Organic Monitor to highlight those who are at the forefront when it comes to sustainability in the beauty industry. The Sustainable Ingredient Award goes to a cosmetic ingredient that makes a significant difference in terms of environmental and/or social footprint.

Lipex SheaLight is made using shea butter and ethanol from renewable sources, environmentally acceptable catalysts and low energy processes – all to minimise environmental impact. Since shea is a non-cultivated, wild crop there is no land use consumption in its production. The manual harvesting reduces the use of fossil fuels, and provides needed income to the rural women who perform the harvest.

"We are very happy and proud of this award. Lipex SheaLight has been well received and this is further proof that it makes a difference to both people and the environment," said Minna Dam, global director at AAK Personal Care.

Lipex SheaLight is a highly functional emollient ester that can be used in a wide variety of applications including skin care, body care, hair care, sun care and colour cosmetic products.

GMP certification

Clariant has successfully completed global ISO 22716 and EFfci Cosmetics Good Manufacturing Practice (GMP) certification for all 22 of its dedicated cosmetics ingredients sites, including core-toll manufacturers. The achievement supports its commitment to offer globally consistent products and processes to customers in the personal care industry.

The ISO 22716: 2007 Cosmetics GMP and EFfci GMP Standard for Cosmetics Ingredients 2005 ensure delivery of high quality products and production standards for the cosmetics and personal care sectors, and fulfil EU guidelines for cosmetic production. They are awarded by SQS, the Swiss Association for Quality Management Systems.

All of Clariant's facilities serving the personal care sector, including core toll-manufacturers, are included within the accreditation. The sites are located in Argentina, Brazil, China, France, Germany, India, Indonesia, Japan, Mexico, Turkey, Singapore, Spain, Switzerland, and the US.

USB connectivity

The Visioscan VC 98 from Courage+Khazaka, a unique UVA-light video camera with high resolution to study the skin surface directly, is now available in a USB-connected version. The images show the structure of the skin and the level of dryness very impressively but it can also be used on spots or hair and scalp. With its multifunctional software, the Visioscan VC 98 is a very flexible system to characterise the skin's surface condition easily.

The system can be directly connected to the USB port of the computer. In addition to the well-known evaluation method, SELS (Surface Evaluation of the Living Skin), Skin smoothness (Sesm), Skin roughness (Ser), Scaliness (Sesc), Wrinkles (Sew) and other interesting parameters to describe the skin surface, are ageing characteristics such as anisotropy.

Study shows scalp and hair efficacy

Croda has conducted a study which shows the moisturising active DuraQuench IQ SA, can deliver scalp moisturisation and hair conditioning benefits when used at 1% w/w in a rinse-off hair care product. This exciting new data broadens DuraQuench IQ SA's application capabilities, making it an attractive proposition for hair care applications, in addition to skin care.

Not only does DuraQuench IQ SA deliver instrumentally proven scalp moisturisation and hair conditioning benefits, these effects have been shown to be consumer perceivable. Throughout the instrumental study, panellists were asked to complete a sensory questionnaire. The results indicated that DuraQuench IQ SA can offer consumer perceivable scalp moisturisation and hair softness attributes.

In an additional take home study, panellists compared the DuraQuench IQ SA formulations to control formulations in a blind study. The results confirmed further the consumer perceivable effects DuraQuench IQ SA can offer as the panellists noticed an increase in scalp moisturisation, hair softness, hair shine and nourishment as well as a reduction in the oiliness of the hair.

Certified portfolio expanded

Since receiving its Roundtable on Sustainable Palm Oil (RSPO) Supply Chain Certification in 2013, Emery Oleochemicals furthers its drive to provide renewable-based products with the recent commercialisation of RSPO Segregated (SG) fatty alcohol solutions. The Home and Personal Wellness business unit will offer SG certified specialty oleo derivatives through the Emercol series.

With applications ranging from co-emulsifiers to emollients to viscosity controllers to stabilisers and dispersants, products in the Emercol series promise to deliver performance and economic benefits. The series meets increasing sustainability demands in the making of personal care items including lotions, creams, makeup preparation and bases, deodorants and hair conditioners.

"We are proud to be progressively innovating with our customers in the area of sustainable solutions benefitting their product development goals and enhancing value chain capabilities," commented Kamal Hezry, global business director, Home and Personal Wellness.

This capability is demonstrated by the integration of Sime Darby Plantation Sdn Bhd, the world's largest producer of certified sustainable palm and palm kernel oil; and one of the founding members of RSPO, and Emery Oleochemicals that enables access to stable supply of SG certified sustainable palm kernel oil.

Event for dynamic Korea

in-cosmetics Korea, the new show launched by Reed Exhibitions, will take place on 15-16 June 2015 at the Coex Exhibition Centre in Seoul and will be the country's only exhibition and educational event of its kind for the industry.

Established with support from the Korea Cosmetic Association (KCA), the two-day event will enable international companies to access Korea's US$8.9 billion cosmetics market in a highly targeted environment.

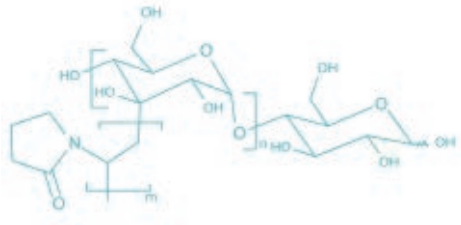
With manufacturers and end-users eager to experiment with new ingredients, the Korean cosmetic market is both sophisticated and dynamic. Visitors from all corners of the Korean beauty industry – including formulators, lab and R&D professionals as well as purchasing managers – are expected to attend, in a bid to source new products and develop strategic partnerships with suppliers.

Catering for the needs of R&D visitors and formulators, the new show will focus on innovative products and formulation techniques with its Innovation Seminars and its acclaimed Innovation Zone featuring ingredients launched within eight months of the show. Also on show will be 100+ exhibitors – with an even 50/50 split between Korean and international ingredient suppliers. Visitor registration will open in April and would-be attendees are invited to register their interest by visiting www.in-cosmeticskorea.com/visit

Fixative gives sustainability

AkzoNobel has launched a new hair fixative that combines the performance of a synthetic polymer with the sustainability of a partially naturally derived material to offer the styling performance formulators require to meet consumer demand. Biostyle XH polymer (INCI: Maltodextrin/VP Copolymer) allows formulators to develop cost-effective styling aids with excellent gel clarity, product aesthetics and on-hair performance similar to PVP K-90 while also responding to consumer preferences for more naturally derived or sustainable hair care products.

Biostyle XH polymer – XH for extra hold – is designed especially for use in such products as clear hair gels, mousses, creams, waxes, and other styling aids. Partially derived from renewable resources, Biostyle XH polymer is formed by the reaction of vinyl pyrrolidone (NVP) and maltodextrin. This proprietary, patented hybrid polymer offers the exceptional clarity and consumer-preferred rheology typically associated with synthetic fixative polymers.



New engineers for R&D laboratory

Fenchem's cosmetic group has expanded its cosmetic application team with three new professional engineers as part of an extension to its R&D laboratory in Nanjing. The aim is to strengthen technical support for customers, and activities will include analytical testing, product application and formulation development.

Responding to the growing business and market opportunities, the extension of cosmetic application team is an important step to further strengthen the company's international technical work and to support the business demand.

Fenchem specialises in developing and manufacturing innovative ingredients for cosmetics and personal care industries including green surfactants, silicones, conditioning agents, thickeners, and sunscreens.

Japan show gains global following

COSME Tech 2014 was hailed a great success with 130 new exhibitors and an overall growth of 50% on the previous edition. The OEM/ODM Zone and Container/Packaging Zone gathered over 100 exhibitors each, including almost all the major players in Japan, such as Japan's top OEM company Nihon Colmar, Japan's top cosmetic container manufacturer Glasel and many others.

Also in terms of visitors, COSME Tech has established itself as a must-attend show for cosmetics manufacturers. Not only the number of visitors from cosmetic manufacturers increased, but also more visitors attended the event for multiple days compared to previous years, judging from the positive feedback from exhibitors about the quantity and quality of visitors.

The conference featured top executives and key figures from leading cosmetics manufacturers such as Shiseido, Estee Lauder, Amorepacific, L'Oréal, Albion and many others.

Fully supported by the industry, COSME Tech has become an essential business platform for those involved in targeting the Japanese cosmetics market. The show has increased its presence also in the Asian and global market. One of the most prominent improvements of the 2014 edition was that the show became much more international, in terms of both exhibitors and visitors.

Japan is considered important in the global cosmetics industry not only because of its market scale, but also as a technically-advanced market and a trend-setter in Asia. Gathering the latest products and services from Japan and overseas in Tokyo, COSME Tech has become one of the most important hubs of the Asian and global cosmetics industry.

HA turnover sustained

Optim Hyal has been designed by Sederma to stimulate hyaluronic acid neosynthesis and sustain its turnover. It restores the optimal level of hyaluronic acid in the skin to make it smooth, moisturised and supple as young skin.

Optim Hyal contains Glycokines, specific signalling oligosaccharides that structurally and functionally mimic the hyaluronic fragments found in the skin. These Glycokines have been demonstrated to stimulate the hyaluronic acid synthesis on both keratinocytes (+40%) and fibroblasts (+35%) for a visible improvement in skin smoothness (main wrinkle density: –46% up to –96%), moisture and suppleness in just one month.

Optim Hyal complies with the Chinese regulation for cosmetic ingredients.

Cell defence regenerator

Mibelle Biochemistry is introducing a biologically active hepta-peptide that stimulates the skin's own self-defence mechanisms against oxidative stress at the cellular level.

Our cells respond to oxidative stress by activating the transcription factor Nrf2. This is a master switch in the cellular self-protection system that leads to an increased synthesis of cell protecting enzymes in order to fight oxidants, free radicals and toxins. However, this system is unable to cope with excess stress factors.

Normally Nrf2 activity is repressed by the Keap1 protein. Nrf2 only becomes activated when the cells are faced with too much oxidative stress. In response to this, Mibelle Biochemistry has designed a hepta-peptide that is a competitive inhibitor of the Keap1 repression. Consequently, Nrf2 is now constantly present in its active form and arms the skin cells for challenges from any stress caused by oxidants or other reactive chemical species.

In cell culture assays, PerfectionPeptide P7 clearly stimulated the expression of detoxifying enzymes. In *ex vivo* experiments and clinical trials the peptide has shown an ability to significantly protect the skin from oxidative stress at the cellular level.

PerfectionPeptide P7 significantly reduces DNA damage, UV-induced formation of sunburn cells, and depletion of Langerhans. The ingredient also provides a unique strategy to fight both environmental and chronological ageing. To ensure stability and bioavailability, the peptide has been encapsulated into a novel soft sphere carrier system that is based on shea butter.

UV filter gets approval

DSM has announced that Parsol TX fully complies with all new specifications listed in the SCCS Opinions. Earlier this year, the Scientific Committee for Consumer Safety (SCCS) assessed the use of titanium dioxide in its nano form, and concluded that it is safe to use as a UV filter in cosmetic products for dermal application when it fulfills the characteristics specified by the SCCS. According to SCCS opinion, a purity of ≥99% in rutile form and a photocatalytic activity of less than 10% in nano form (compared to the corresponding non-coated or non-doped references) are among the main requirements that confirm the product's stability and safety.

Parsol TX is an aluminium-free, inorganic UV filter, made of 100% pure rutile form. Thanks to its unique, very tight, double coating, it has an excellent photo-stability and a good compatibility with other UV filters such as avobenzone, and also with acrylate thickeners.

As confirmed by the proprietary consumer and market research, a negative sensory experience is the major drawback related to the usage and re-purchase of sunscreens. Parsol TX's hydrophobic coating strongly contributes to its aesthetic appeal in formulation, and in particular, to its pleasing, sensory feel. Thanks to its formulation properties, it offers flexibility across a wide range of sun and skin care product formulations including makeup products and the latest additions in the personal care market's BB and CC cream formulations. Aline Hueber, global marketing manager Sun Care at DSM, commented: "We are excited about this positive development for nano grades of titanium dioxide. We are pleased to see that its tangible benefits over conventional titanium dioxide, for both consumers and customers, are confirmed by the growth of the product over recent years."