

Exciting minerals – an update

In Dominica this year, I visited one of the many volcanic pools in the area and also purchased a tourist sample of the mud extracted out of this hot, spluttering ferment. Local people have a superb knowledge of their local flora and ethno-pharmaceutical remedies, but they also placed great store by the muds and silts that are prevalent in the area.

Examination of the sample showed that there was eagerness to show that the sulphur mud was anti-ageing, and good for combating arthritis, pimples, rashes and many kinds of skin disorders. Although there is uncertainty about the claim to preserve a youthful skin, the claim that it would be good for pimples is well substantiated from a search of the literature, since sulphur has long been known as good for acneic skin. The presence of mineral in the mud would also be beneficial in any preparation seeking to alleviate distressing problematic skin conditions.

Sulphurous muds

In the 5th Century BC the beneficial properties of the sulphurous springs were already well-known because they were used to treat muscle and articular diseases such as arthritis and also used to improve skin complaints. This use continued through into Roman times and became a part of the hot springs and bathing culture.

Sadly, the sulphur paste sold by the side of the sulphur pool was not available in large quantities commercially and so I searched literature for a possible alternative and discovered that a source was available from Provital called Thermal Alluvium with Sulphur.

It was explained that the mud had settled after long periods of time, in sediments near thermal springs or at the bottom of the sea, and was essentially composed of clay and small quantities of other compounds. These compounds are responsible for the different characteristics of the mud, such as colour, odour and other special properties, depending on its place of origin.

Muds are formed because of the



Sulphurous mud pool.

erosion of several rocks, especially feldspar and mica. Once transformed into powdered materials, they are easily carried away by water flows and deposited in sediments at the river sides or at the bottom of seas and lakes.

The composition and morphology of these muds are very different. They mainly contain aluminium, iron and magnesium hydrated silicates (crystalline and amorphous forms) which includes nacrite, of thermal formation, up to montmorillonite, as well as the stable kaolinite. In some cases these deposits contain hydrated alumina and ferric oxide. The size and distribution of the particles, which have a colloidal size and a plain or flattened shape, give them a characteristic slip, whereas the very fine quartz sand, feldspar, mica, powdered opal, fossil fragments, high density minerals such as sulphates and carbonates give them a certain degree of abrasiveness.

The thermal alluvium is picked up in sediments close to a sulphurous thermal spring, when the most granulated hard particles are eliminated. It contains approximately 7% of elemental sulphur.

The main properties of the mud are:

- Absorbing power: it has a very high adsorption and absorption capacity, because of its small colloidal particle size and so has a large surface area,

which gives it excellent qualities as an anti-toxic and decongestive. Due to its strong absorbing power, mud is of great use to treat greasy acne-prone skin. The mud exerts a proven action on sores, eczema, skin burns and other dermatological conditions, promoting rapid wound healing.

- Cicatrising action: it has a high aluminium silicate content and so helps to cicatrise wounds, eczema and other disturbances of the skin very quickly. Improved speed of healing leads to a reduction in possible scarring and blemishes. The mud is a natural bio-catalyst, especially efficient on connective tissue, because of its high silicon content. Silicon is essential for the correct formation of collagen fibres. In this context, oligoelements also play a relevant role.
- Stimulating capacity: mud absorbs several radiations (solar, magnetism, radioactivity, etc). It releases again these radiations but dosified and at a lower frequency, resulting in a very concrete potential of organic stimulation, which influences the body vigour and metabolism, invigorating the cell reconstruction and accelerating all the organic processes.
- Antimicrobial effect: according to a brochure this highly powerful absorption

inactivates the microorganism action. This action seems to be strengthened by a certain natural antibiotic capacity of mud.

- The occlusion that results of mud application on the skin raises skin temperature and promotes microcirculation in the conjunctive tissue, all of which produce a certain degree of skin moisturisation.

These effects would confirm the claims made on the small purchased sample in Dominica.

Clays

Beraca has a similar product called Amazonian White Clay. This clay is an oleaginous soil that has a great number of shades, depending on the site of origin. It is a natural product, very rich in mineral salts that take the toxins to the skin surface and help remove them. It is rich in iron, aluminium, potassium, calcium, boron and sulphur. The clay was quite popular natural therapy, well-known locally for its beneficial effects in headache and stress illnesses. The Brazilian Indians used geotherapy often, as the clay may protect them against skin problems and also protect them from biting insects. The clay is full of nutrients that combat free radicals and is believed to channel positive energy.

This product is said to be effective when it is sun dried to energise it. The Amazonian White Clay can be applied in natural treatments for relaxation, skin regeneration, hydration and cleansing.

Silts

Active Concepts has a Sea Silt which forms in calm estuaries and coastal regions with low tides. Often rich in minerals, clay, algae and other nutrients, Sea Silt is said to both fortify and rejuvenate the skin. During the manufacturing process, Sea Silt is carefully extracted with water and butylene glycol to retain all of its nutritive benefits. ABS Sea Silt Extract is a healthy addition to cosmetic and personal care products.

Gaiamare (through Gattefossé) has a Fossil Mud which is silt 40%, magnesium aluminium silicate 35% and aqua 25%. The product is extracted by washing to a more than 700 metres depth zone of Catalonia where the earth presents a great concentration in salts and minerals that confer to these products and their derivatives wide properties. It is a natural saline mud that contains an elevated portion of halite (NaCl), calcite (CaCO₃), anhydrite (CaSO₄), quartz (SiO₂) and phyllosilicate fractions of muscovite and rests of nontronite. It is combined with red clay and is used as a basis for cosmetic

and/or therapeutic preparations, due to its thermoactive, remineralising and exchanging salts properties.

There are a number of marine muds which would happily fit into this category.

Dead Sea mud

Alban Muller has Dead Sea muds and salts which are of great potential in a variety of personal care applications.

The thermal baths of the Dead Sea are contemporary to Great King Solomon. Their reputation for efficacy spread all over the antique world (Cleopatra imported salts from the Dead Sea for her beauty care).

The Dead Sea is situated 400 metres below sea level. As water of the rivers that flows in cannot flow out, it concentrates, evaporates, then progressively deposits treasures eroded from the Judean Mounts (mineral salts, organic sediments). The salinity of the Dead Sea is thus 10 times higher than that of any other sea. Nowadays, many countries encourage citizens suffering from psoriasis or arthritis to make a stay at the thermal baths of the Dead Sea as the mud and salts bring relief from these distressing conditions. The salts and mud are also quite famous for their remineralising and purifying properties and are much sought after.

The mud is highly recommended in case of seborrhoeic skin or skin suffering from acne, and Dead Sea mud is very efficient for the care of skin, to "deep cleanse", and to relieve painful joints. The black mud, rich in minerals, is composed of layers of clay sediments constituted as millennia went by. The concentration in minerals is high. The mud contains natural exfoliating agents with an action that purifies and tones the skin. As a result the skin is more supple and smoother.

In a mask the mud can be used to balance and smooth the skin. The skin is cleaned in depth and, as a result, ends up nourished and better hydrated. In scrubs it provides a light lifting to leave the skin fresh and revitalised. On the hair, in a mask or in a shampoo, it is used to clean the hair, to remove an excess of sebum,

and to rebalance the scalp. In products designed for body care it is said to favour cellular exchanges and slimming and helps to improve the aspect of the skin and keep it elastic. The figure becomes thinner, the skin breathes. It is ideal for anti-stress cures or after birth. Around the joints, it relieves pains.

The salts of the Dead Sea bring a calming and relaxing effect.

In a bath they enable the body to feel well and provide an ideal solution for body tiredness, muscular or nervous tension. In cosmetics, the salts allow purifying, cleansing and remineralising of the skin. Their beneficial aspect is furthermore improved when associated with warm applications of Dead Sea mud.

Rassoul mud

Rassoul or Ghassoul was created at the piedmont of the Atlas mountains in Morocco, known as "the country where the sun sets". It was formed in deposits during the Jurassic period in the Mesozoic era, 208 to 144 million years ago. This detoxifying clay is mined from 2.5 miles within the Atlas Mountains. Its purity is renowned throughout history going back as far as 2500 BC. Rassoul contains lithium as well as magnesium and other trace elements, such as iron, potassium, copper and zinc. The mud has been used since the 12th Century; Moroccans used Rassoul as a daily therapeutic source for skin cleansing and purification, dermatitis, sensitivities, smoothing rough or scaly skin, seborrhoeic skin and scalp and hair treatments. The underground mining of Rassoul originally commenced with ancient North African civilisations.

The Societé du Ghassoul et de ses Dérivés (available through Unifect) exploit the only known deposits of Ghassoul clay in the world, located 200 km from Fez in Morocco.

Ghassoul has been used for more than 12 centuries by people from all North African and Middle-Eastern countries, and takes its name from the Arabic word for washing – "Rassala".

The material has been awarded Ecocert organic certification for the cosmetics sector. [www.ghassoul.org]

Minerals are growing in popularity and a number of new raw materials are being presented.

Bamboo silica

This is one of the natural sources of plant silica.

Lessonia has Bamboo 200, 500, 1000 and Bamboo 100. Bamboo Exfoliator is a solidified organic silica extracted from the nodes of specific bamboo stems, called tabasheer in the traditional Indian



Bamboo.

medicine. Bamboo 100 is especially ideal for microdermabrasion since it improves skin refinement and complexion clearness.

A further exfoliator based on bamboo silica is available from Libiol. The Bamboo Exfoliant is obtained from the bamboo tabasheer stems collected in the form of an exudate which crystallises at ambient temperature. The product is presented in the form of a very hard white mass. After crushing, obtained is a crystalline powder very rich in mineral salt. It is a source of silica (SiO₂) since this particular variety of Bamboo contains nearly 70% of it among the other minerals found. The Bamboo exfoliant is particularly interesting for the manufacture of exfoliating creams or gel to remove the dead cells and debris from the skin surface.

Bamboosilk is available from Naturactiva. Certain female bamboos contain a white secretion in their joints called tabasheer. It consists almost of pure hydrated silica and has been used in Indian phytotherapy for its remineralising properties in treatment of arthritis, osteoporosis and for strengthening hair and nails. Eastern medicinal tradition describes tabasheer as alkaline, cold in nature and sweet in taste. It is considered as aphrodisiac and tonic in China where it is called tian zhu huang. Bamboosilk imparts to powder formulations a variety of properties that include a high sebum absorption capacity, a mattifying aspect and a silky smooth feel. It also helps to improve the ease of application and the spreadability for body lotions, absorb excessive perspiration, reduce lipstick exudation, add volume in mascaras and improve nail polish wear.

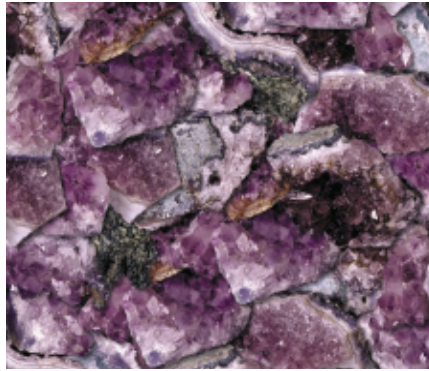
Lava silica

Rhyolite (Si/Al) 75 & 200 (Lessonia): extremely abrasive, rhyolite is a low density lava rich in silica (71%), formed in Lipari islands volcanoes' magma. Processed into a very fine powder, Rhyolite exfoliator allows a tonic exfoliation. Such a mineral is ideal to regenerate skin and to smooth the epidermis without affecting the hydrolipidic surface.

Marine sources of minerals

Lithothamnium (Ca/Mg) (Lessonia): lithothamnium is a red coral plant highly rich in calcium (30-35%) and magnesium. Its marine origin makes it a revitalising mineral treasure, gathering more than 32 trace elements in a readily available form. Its hardness also ensures energetic exfoliations.

Spring Sea Water (from Soliance) is pumped from a natural reservoir more than 22 m in depth which is constantly supplied



Amethyst.

with sea water. It is naturally rich in minerals and trace elements because of its contact with the sand and the network of granitic faults of its original environment. The marine station is located in North Brittany (France). It optimises water exchanges and improves the cohesion between the dermis and the epidermis by increasing hemidesmosomes number and maintains endogenous skin hydration by stimulation of epidermal lipids synthesis.

A huge range of marine derivatives and a similar spring water are available from Codif.

Precious stones

Amethyst

Soliance supplies an amethyst in its Lithocosmetic range of materials. The amethyst is approved by Ecocert for ecological and organic cosmetics.

Purple has long been considered a royal colour. It is not surprising, therefore, that amethyst has been so much in demand during history. Amethyst is a variety of quartz. This popular gemstone can occur in the form of long prismatic crystals that have a six-sided pyramid at either end or of crystalline crusts that only show the pointed terminations. Amethyst is mined in Brazil, Uruguay, Bolivia and Argentina as well as in Namibia, Zambia and other African countries.

The name amethyst is derived from the Greek "a" (not "methuskein" (to intoxicate), expressing the old belief that the stone protected its owner from drunkenness. Indeed, it was held that wine drunk out of a cup of amethyst would not intoxicate. The stone still symbolises sobriety.

Metaphysical characteristics: amethyst has relaxing effects. It brings internal peace, dissipates evil thoughts and quickens the intelligence. Amethyst drives away anger, fear and anxiety. It works against toothache and headache. It fights against blood impurities, venereal disease and colour blindness. Amethyst balances the energies of the body: physical, mental and emotional.

Citrine

Citrina is supplied by Soliance and is described as a relaxing gemstone cosmetic powder. Citrine is a yellow member of the quartz mineral group. It is one of the most affordable gemstones, thanks to its durability and availability. It is often confused with the costly yellow-orange topaz gemstone.

Metaphysical characteristics: citrine acts against digestion problems and eye disease. Citrine is also called the "stone of the mind" because it is believed to increase psychic power. It increases self-esteem, protects from negative energy, opens the mind and clarifies thoughts. Citrine also has the power to calm and soothe depression, to give joy and love.

Cosmetic characteristics: citrina is a citrine micronised powder and improves the complexion by fighting against the effects of stress. Citrina also stimulates the immune system, thus protecting sensitive skin.

Diamond

Active Concepts supplies a diamond material. For centuries diamonds have been used as alternative medicines. It has been said that diamonds are capable of increasing energy and brain activity while fighting glaucoma. Although these claims have never been scientifically validated, diamonds have come to symbolise generosity, prosperity and love. Diamonds are the strongest mineral on earth, and are often used not only in jewellery, but also for industrial equipment to cut hard surfaces.

The popularity of diamonds is most likely attributed to their beauty. When polished and cut, the sparkle and shimmer of a diamond may seem rather hypnotic to some. Although most of us are familiar with the "4 Cs" – cut, colour, clarity and carat – many of us often confuse carat as being a measurement of size when it is actually a measurement of weight. The term carat is derived from the Greek word keration which is the fruit of a carob. Carob seeds were noted to have uniform weight and were originally used as weights on precision scales. Our confusion with the word carat does, however, seem logical, as larger diamonds tend to weigh more than smaller diamonds. Many of us may want a large diamond due to the value – but from an aesthetic sense, they may be more appealing due to the greater distance the light must travel. This results in an increased prism effect, which we register as a greater sparkle and shimmer than we see in a smaller diamonds.

But why would we ever think to use diamonds in cosmetics? Our skin is a living organ that is constantly changing.

It consists of the dermis and the epidermis. The epidermis is comprised of several layers, with the outermost layer of the epidermis consisting of dead cells. These cells tend to build up over time and without proper exfoliation our skin appears dull and dry. By regularly exfoliating we can keep our skin looking smooth and revitalised while imparting evenness to our skin tone.

AC Diamond Dust (though IMCD in UK) consists of diamonds that are ground into a fine powder for use as an exfoliant in personal care and cosmetic products. This can be used not only in foot and elbow exfoliants but also in products designated for exfoliating more sensitive areas such as the face, neck, shoulders and even lips.

Diamond is also supplied by Soliance and is described as the purity gemstone cosmetic powder.

Metaphysical characteristics: diamonds are the traditional emblem of fearlessness, virtue, power and wealth. Today, diamonds symbolise eternity and are often seen on engagement rings. Diamond is a great assistance for all brain diseases. It is also beneficial in the stomach area and can strengthen the owner's memory. The wearer of diamond is protected from the bad influence of evil spirits and snakebites. Diamond is an antidote to poison and is capable of detecting it.

Cosmetic characteristics: diamond is a micronised powder and this stone shows healing properties and stimulates immune defences. Diamond can be useful for treating bone diseases.

Emerald

Active Concepts also supplies an emerald. Green is the colour of love, money and envy. It is also one of the most sought after colours in gemstones. Emerald is the green variety of the mineral beryl ($\text{Be}_3\text{Al}_2(\text{SiO}_3)_6$) and its green to bluish colour is attributed to trace amounts of chromium and iron present. It is considered to be the most valuable of all the gemstones due to its rarity. Emeralds are typically formed under hydrothermal reactions and tend to have slight water inclusions. Emeralds also have a hardness of 7.5 on the Mohs scale where 10 is considered to be the highest.

Regarded as the traditional birthstone for May, the emerald also represents the astrological signs of Cancer and Taurus. It is believed by many that emeralds have the power to ward off evil spirits, cure epilepsy and dysentery while also aiding poor eyesight. Typically regarded as a symbol of pride, emeralds are also the traditional gifts given for the 20th, 35th and 55th wedding anniversaries in several different cultures. Emerald is commonly

recommended in chakra and crystal therapies. Emeralds are attributed with improving the wearer's physical, emotional and mental balance. Emeralds are also considered to be a source of inspiration, while improving patience and providing healing properties.

The Incas and Aztecs of South America revered the gemstone as holy. Emeralds were also a favourite of ancient Egyptian pharaohs between 3000 and 1500 BC. Not surprisingly, the emerald mines were referred to then as "Cleopatra's Mines". The Vedas, holy scriptures written in India many centuries ago, mention the gemstones as having healing properties, while enhancing wellbeing and ensuring good luck. Not surprisingly, artifacts with emeralds are highly sought after and prominently displayed in museums and private collections. An example is the cup of Emperor Jehangir (made entirely of emerald) which has been displayed at the New York Museum of Natural History next to the Patriciaç, a Colombian emerald weighing 632 carats.

When added to cosmetic and personal care products, AC Powdered Emerald may provide mystical properties that have been associated with the gem. Commonly used for healing, and as an "energy medicine tool", gemstone products are also popular in holistic healing treatments such as chakra and crystal therapies.

Garnet

Garnet (Si/Fe) 100, 200 and 300 (Lessonia). A semi-precious stone, the Almandite Garnet used in Garnet Exfoliator is known for natural hardness and abrasive characteristics. It is especially rich in iron (30%), essential for the body's wellbeing. Associated with silica and aluminium, these minerals act in synergy for a powerful regenerating and energising experience.

Jade

Active Concepts supplies jade which has been known to exhibit various therapeutic properties, both for the body and the mind. Many ancient cultures, such as the

Mayas and Aztecs, used to wear a belt of jade around their waist because it was thought to relieve kidney problems. Jade is also known as being one of the toughest natural stones, and these cultures used it to make many of their everyday tools. The peaceful features of this stone give it the qualities to be deemed the birthstone for the month of March as well as for the zodiac sign Virgo.

In gemstone therapy, jade is believed to improve creativity and mental agility while also having a balancing and harmonising effect. This stone is known in China as the "stone of heaven" and is known to embody the Confucian virtues of wisdom, justice, compassion, modesty and courage. The qualities were so important that the Aztecs buried their loved ones in jade masks so that they would have a peaceful death.

Jade is actually two distinct stones and, although it is typically thought to be a green colour, it also comes in shades of white, yellow, pink, purple, and red. Nephrite is the more common of the two stones and can be found in China, New Zealand, Russia, Guatemala, and the Swiss Alps. This stone has been the provincial gemstone of British Columbia since 1968, with more than 150 communities depending on the mining industry in Canada. Jadeite is the less common of the two stones and can be found in China, Russia, and Guatemala, while the most valuable type is found in Burma. The value of the jade stone is determined according to the intensity of colour, vivacity, texture, clarity, and transparency.

When applied to cosmetic formulations, AC Powdered Jade may provide the mystical properties that have been associated with the gem. Commonly used for healing, gemstones are also popular in holistic healing treatments, and jade may be able to bring about a sense of balance and harmony.

Moonstone

Active Concepts supplies a moonstone material which many different cultures have associated with possessing mystical powers. Ancient Romans believed that an image of Diana, the goddess of the moon, was encapsulated within the sacred stone; and until the 16th Century it was believed that the appearance of moonstone changed with the different phases of the moon. It has also been said that wearing the gem will bring one victory, health and wisdom. In India it is considered to be sacred and is typically displayed on a yellow cloth that will bring good fortune, which is brought on by the spirit that resides in the stone. Recognised as a symbol of fertility in many Arab countries,



Jade.

the stone has also been sewn into women's garments.

Many believe that moonstone may improve one's intuition and sensitivity toward others, while also improving one's emotional and daydreaming tendencies. Considered a stone for lovers, it has been said that it will also increase feelings of tenderness and the desire to protect loved ones. Often cut into a cabochon shape, the shimmering opalescent stone was very popular during the Art Nouveau period and was commonly used in jewellery and ornamental decorations by the famous goldsmith René Lalique and his contemporaries. Many pieces containing moonstone that were created during the Art Nouveau period are now displayed in museums and private collections.

Moonstone is a type of feldspar that naturally occurs in many igneous and metamorphic rocks. An important group of silicate minerals, feldspar comprises approximately half of the earth's crust; and under certain geological conditions, gem quality stones such as moonstone, labradorite, amazonite and sunstone form. These gem quality feldspars are actually aluminosilicates, which contain aluminum, silicon, oxygen sodium and potassium. Although Sri Lanka is considered to be the primary location for mining the highest quality moonstone, the gems are also found in the Alps, Malagasy, Burma and India.

When added to cosmetic and personal care products, AC Powdered Moonstone may provide mystical properties that have been associated with the gem. Commonly used for healing, and as an "energy medicine tool", gemstone products are also popular in holistic healing treatments.

Rose quartz

Active Concepts supplies a form of rose quartz. Historically, holistic healers and therapists around the world have employed the natural energy of gemstones to help correct physical, mental, and spiritual abnormalities. Such imbalances are thought to cause everything from dry skin to insomnia. Today, with a renewed interest in the natural living and wellness market, where health and beauty habits increasingly overlap, it is not surprising that the ancient practice of using gemstones has found a place in the modern world.

A very interesting gemstone, rose quartz is one of the most desirable varieties of quartz. It is found in Madagascar, India, Germany, and several localities in the USA. Much rose quartz was originally extracted from a famous site near Custer, South Dakota, but now, most of the world's supply comes from Brazil. So amazing



www.sc.hu

Rose quartz.

are the rose quartz crystals that modern mineralogists from around the world dismissed the first ones discovered as fakes.

In ancient Egypt, women wore facial masks carved of pure rose quartz to soften and beautify the skin. Hair was dry shampooed using fine powdered clays and gemstones. The powders were combed through to absorb the grease and dirt. The gem has since become the established stone of all things feminine and goddess-like. Rose quartz can be categorised as one of nature's most energising minerals.

In its powdered form, it may be used to buff away dead skin cells and impurities, revealing the soft, fresh, and youthful skin beneath. Its light-reflective crystals illuminate the skin, softening flaws and boosting radiance. Its restorative and energetic properties sweep away impurities, improving dull or flaky skin and opening hair follicles, while protecting against future damage. AC Powdered Rose Quartz creates a stronger, more potent bio-energy field in formulations.

Ruby

Rubisa from Soliance is described as a modulating gemstone cosmetic powder.

Ruby is the red variety of the corundum mineral. For thousands of years ruby has been considered one of the most valuable gemstones of our earth. It has all it takes for a precious stone: a wonderful colour, excellent hardness, and an overwhelming brilliance. Slight traces of the colour-creating elements such as chrome, iron, titanium and vanadium are responsible for the red colour, synonymous with passion and power.

Metaphysical characteristics: ruby protects people from afflictions, sorrow and disasters. This stone strengthens the spirit, prevents egoism and authoritarianism. The wearer of the ruby enjoys wealth and property and becomes fearless.

Cosmetic characteristics: Rubisa is a ruby micronised powder that is a strong stimulator and good regulator of blood circulation. It also has a toning effect.

Sapphire

Soliance has a product called Sapphira, which is described as the regulating gemstone cosmetic powder. Sapphire, "gem of heaven", has been cherished for thousands of years. The ancient Persians believed that the earth rested on a giant sapphire and its reflection coloured the sky. From the deep blue of evening skies to the bright and deep blue of a clear and beautiful summer sky, sapphire exists in all the shades of blue skies. This splendid gemstone, however, also comes in many other colours, displaying the bright fireworks of sunset colours: yellow, pink, orange and purple.

Metaphysical characteristics: sapphire symbolises loyalty and faithfulness, while at the same time expressing love and desire. Blue sapphire is used to transmute angers and impulsiveness into patience and waiting. Sapphire wakes up the conscience as well as qualities of wisdom, intuition, interior peace, knowing and simplicity. Sapphire calms and alleviates pain.

Cosmetic characteristics: Sapphira is a sapphire micronised powder that belongs to the Lithocosmetics range composed of cosmetic precious stone. Sapphira is excellent for the skin, the hair and the nails. It can be used to fight against skin eruptions and excessive perspiration.

Topaz

Active Concepts supplies a topaz which is a very hard gemstone that shares the traits of a diamond. Topaz exists in various shades of colour from brown, yellow, orange, pink, and red. The gemstones are mostly found in Brazil, Sri Lanka, Pakistan, and Russia. Pale topaz, which has been enhanced by irradiation to become blue, is mostly found in Brazil, Sri Lanka, Nigeria, and China.

Topaz has been associated with Jupiter, the Roman god of the sun. Being the largest planet in the solar system, the planet Jupiter is known as a celestial metaphor for the king of gods. Jupiter is also associated with health complications. The combination of bad transits and weak Jupiter at birth causes complaints such as jaundice, hernia, liver problems, skin disease, and cerebral congestion. In such cases, it is believed that wearing topaz may act as a remedial measure against diseases governed by Jupiter. The Greeks, on the other hand, focused on the power of topaz to increase strength and make its wearer invisible in times of emergency. Additionally, they used the powder to cure insomnia.

Today, this elegant stone is used in cosmetics in its powder form to help stimulate blood flow circulation and

improve dull skin. When used in conjunction with plant extracts, AC Powdered Topaz hydrates and protects, infusing the skin with visible life and radiance, bringing a healthy glow to the surface. It can also be used in skin rejuvenation techniques, such a micro-dermabrasion, to correct topical flaws.

For hair care, the crystals can act as tiny mirrors focusing positive light on the follicle, where it may stimulate nascent hair.

Tourmaline

Soliance supplies Tourmalina, which is described as the energising gemstone cosmetic powder. It is approved by Ecocert for ecological and organic cosmetics.

Tourmaline is a mineral found in granite pegmatic and metamorphic rock. It has been characterised since Ancient Egypt by a wide range of different shimmering colours.

Metaphysical characteristics: tourmalines are said to enhance one's understanding, increase self-confidence and amplify one's psychic energies. They also are said to neutralise negative energies, dispel fear and grief, and to help in concentration and communication. Tourmaline gives off a very focused directional energy; it is supposedly good for moving energy between the chakras. Pink tourmaline is said to inspire love, spirituality and creativity, and to give wisdom and enhance one's willpower. It is one of the foremost heart chakra healers. It treats stress and nervous conditions.

Mechanism of action: tourmaline is a piezo-electric crystal which emits energy in the far infrared region (4-20 μm). These radiations have unique interaction with biological systems by resonance absorption. The skin absorbs IR radiations at 9 μm so tourmaline crystals can transmit the energy and induce improved blood flow. Far infrared rays improve microcirculation and are involved in better healing as they increase collagen synthesis. Niwa (1993) proved that tourmaline is capable of activating leukocyte functions without promoting oxidative injury (lipid

peroxidation from unsaturated fatty acid was markedly inhibited).

Cosmetic characteristics: Tourmalina is a micronised powder of tourmaline. Tourmalina triggers microcirculation through a physical phenomenon: far infrared energy emission. It improves the complexion by increasing skin temperature.

Precious minerals

Corindon (Al) Special

Microdermabrasion (Lessonia).

A fashionable skin-freshening and skin-renewing technique. Corundum is the crystalline form of aluminium oxide. It is naturally clear but can have various colours depending on the crystals it contains. The transparent specimens are used as gems (e.g. ruby, sapphire).

Hema'Tite (Libiol)

Haematite is capable of acting right inside the cells, to stimulate enzymatic activity of prolyhydroxylase, thus increasing fibroblast production of pro-collagen.

Rhodo'lite (Libiol)

The anti-stress stone par excellence, rhodochrosite encourages intuition and creativity by emitting high frequency vibrations that are actual fields of energy which surround the bearer. When placed directly on the skin, it helps regulate emotions and calms restlessness and anguish. In litho-therapy, it is used to purify the skin and to improve general physical wellbeing. In the face of everyday pressures imposed by the urban and professional environment, rhodochrosite prepares our mind and renews our strength and energy. By aiding our memory and mental acuity, it stabilises emotional and energy networks.

Mala'kyte (Libiol)

The effects of malachite have been demonstrated at several levels of the "antioxidant" defence mechanisms in our cells. Through its effect on the superoxide radical, this mineral acts directly on the reactive species by inhibiting the superoxide anion at a rate of more than 95%. At the same time, malachite acts at a more complex level in the body's defence system. Its effect on hydrogen peroxide occurs via reduced glutathione – or more precisely, through the enzyme in charge of regenerating it. This indirect activation effect allows elimination of one of the main factors limiting the reaction between hydrogen peroxide and reduced glutathione: the reduced glutathione itself.

Zin'Cyte (Libiol) or

Smithsonite (zinc carbonate)

This can offer advanced cell protection that

encourages natural DNA repair and shields against permanent cell lesions. Metallothioneins have a genoprotective effect that helps prevent DNA lesions. They can maintain the nuclear redox potential, thus making DNA repair easier through the exchange of zinc atoms. The metallothionein induction capability of Smithsonite makes it a select ingredient for daily application formulations such as day creams and foundations. It provides the best, constant protection for cells in the daily fight against environmental stress. When added to detoxifying serums, zinc carbonate mineral helps fight against the effects of certain pollutants. It has special genoprotective action, making it particularly effective in protecting DNA, the building block of our skin cells.

Pearl sources of minerals

Pearl (Ca/Mg) 200 and 500 (Lessonia)

The mother-of-pearl is alternatively formed with layers of aragonite and conchiolin organised around a nucleus. Thus, both mineral and organic, it especially activates microcirculation and gives brightness to the face; with sparkling particles, it gives cosmetic scrubs a deep precious image which is pure luxury for the skin.


Cosmepearl Freshwater Pearl Powder (Cosmetochem)

A cosmetic ingredient to add a touch of luxury to personal care products. This is a fine powder made from micronised freshwater pearls coated with jojoba oil. They contain calcium carbonate in the form of aragonite crystals and trace elements and natural moisturisers in the form of a wide range of amino acids and protein complexes. A water pearl abrasive is also available.

Crodarom has a pearl extract which is described as being anti-inflammatory, stimulating, invigorating, antibacterial and detoxifying. It re-energises skin tissue and strengthens hair and skin.

There are also pearl powders available from A&E Connock, Sino Lion and Eurocostech.

Conclusion

The growth of the use of minerals has provided a brand new and exciting portfolio of raw materials for the cosmetic industry and looked forward to is a wealth of further ideas from these novel sources. 

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Mother-of-pearl.