Im Debattierclub n °115

LED Fantasy

** LED erzeugen monochromatisches Licht. Mit geeigneten Halbleitermaterialien lassen sich alle Farben des sichtbaren Spektrums generieren.

** LED-Licht einer bestimmten Frequenz und eines bestimmten raum-zeitlichen Intensitätsverlaufs (fokussiert, diffus, konstant, pulsierend) löst beim Menschen bestimmte Emotionen aus.

** Eine solche mentale Beeinflussung kann mit LED-Arrays, die geeignete farbige Muster erzeugen, signifikant und spezifisch verstärkt werden: Stimmungsaufhellung, Lernstimulation, Kreativitätsanregung etc. Diese mentale Beeinflussung ist auch über das Unterbewusstsein möglich.

** Eine mittelbare Beeinflussung von so zugänglichen „Schichten des autonomen Betriebssystems“ mit therapeutischer, stimulierender, … Zielstellung (Triggern, Umschalten, Verstärken, Dimmen biomolekularer Prozesse), u. U. mit medikamentöser und/oder physikalischer Mitwirkung (Schall, elektrisches Feld, magnetisches Feld, …), scheint möglich.

** Analoge Effekte der Informationseinspeisung mittels macro-, micro-, nano- LED-arrays, auch außerhalb des Spektrums des sichtbaren Lichts, sind bis hin zu

Einzellern im zoologischen und botanischen Bereich erwartbar.

Denkbar sind:

Beeinflussung von Biofilmen, Einsatz in biofilm factories,
Einsatz in growrooms (Gemüse, Algen, Pilze)
Beeinflussung von biomolekularen Prozessen,
Baugruppe für einen Zellaktivator,
Saatgutbehandlung, …
Farbpigmentbehandlung, …

** LEDs generate monochromatic light.
Suitable solid state materials permit generation of all colors in the visible light spectrum.

** Attributes of LED light such as frequency and intensity distribution in space and time (focused, diffuse, constant, pulsating) trigger specific emotion in humans.

** The mental stimulation can be amplified with LED arrays that generate specific color patterns, such as to enhance mood, stimulate learning and creativity in a significant and specific manner. A subconscious mental stimulation is also conceivable.

** An indirect influencing of accessible layers of the autonomic nervous system with therapeutic, stimulating etc. aim (triggering, switching, amplification, dimming of biomolecular processes …), partially with medicinal and/or physical contribution (sound, electric fields, magnetic fields,…) appears to be possible.

** We imagine analogue effects of information input to biological information systems via macro, micro, nano LED arrays (even outside the visible light spectrum), including to single-celled organisms of zoological and botanical nature.

Potential application fields are:
Influence and stimulation of biofilms, use in biofilm factories,
Application in grow rooms (vegetables, algae, mushrooms, …),
Stimulation and control of biomolecular processes, esp. in the food production,
Module for a cell activator,
Seed treatment,
Color pigments treatment, …

References

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[2] https://en.wikipedia.org/wiki/Light-emitting_diode
[3] https://idw-online.de/de/news408497
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[5] http://www.ledlightforyou.com/Applications/de-LEDs-in-der-Medizin.php
[6] https://en.wikipedia.org/wiki/Biofilm
[7] https://en.wikipedia.org/wiki/Biofilm_factory
[8] Xin An Zeng, Shu Juan Yu, Lu Zhang, Xiao Dong Chen. The effects of AC electric field on wine maturation. Innovative Food Science & Emerging Technologies **9** (2008), 4, 463-468
[9] Zhong Han, Xin An Zeng, Ben Shan Zhang, Shu Juan Yu. Effects of pulsed electric fields (PEF)

treatment on the properties of corn starch.
Journal of Food Engineering 93 (2009), 3, 318-323
[10] D. Ebner. Der „Urzeit-Code“ für Heimanwender.
raum & zeit 26 (2008), 152, 60 – 68
[11] Global Scal¬ing Sound Generator
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How about “GS Light Generator”?

Links to

** In the debating club 78
“An advanced Samadhi Tank technology idea”

** Unit 3
“The algorithm system „Signa in silico“: computer graphics, and applications in the areas of design and engineering”

** Im Debattierclub 75
„IT in großen biologischen Systemen“

Supplement

Brainstorming born project ideas, unfiltered “Specially tailored influence on biomolecules and biomolecular processes in vitro and in vivo by
**** suitably shaped and time-variable modulated electric (esp. high voltage electric), magnetic, and electromagnetic fields**
**** connected with suitable LED light treatment”**
covering the application areas
* food, beverage and drug treatment
- preservation, maturation, taste and smell balancing, removal of bitter and harmful substances and by-products
- wine, juices, honey, tea, coffee, cacao, chocolate, natural drugs

* treatment of seeds and eggs
  - improvement of germination
  - reconstruction of phylogenetic ancestors
  - faster growth, higher yield/weight, higher resistance
* cultivation/selection of plants and breeding of animals
* treatment of passive and active organic synthetic materials
  - metamaterials, smart materials,
  - mechanical and electrical energy storing materials
    (technical, biological, bio-built; e-car battery technology???)
  - laminates and thin films (homogeneous, compound)
* treatment of organic food additives (acids, antioxidants, colourings, flavours, stabilizers, thickeners, etc.)

Lateral

* control of emulsion, suspension, dispersion, and decomposition processes
* control of catalytic reactions
* control of nanotechnology production processes
* treatment of meltings (metal, glass, thermoplastic)
* influence of setting processes (metal, glass, termoplasic, chocolate, etc,)
* influence of freezing and defrosting processes, freeze-drying
* feedback to the field/light generator using suitable sensor technology, resonance effects.