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(54) Title: LIGHT EMITTING UNIT BASED ON LED

(57) Abstract: The present disclosure relates to methods, systems and light emitting units based on light emitting diodes, in particular for facilitating the production of vitamin D, reducing the microbial pressure and optionally providing work light inside buildings such as animal farm production facilities, hospitals, offices, premises, storage facilities, manufacturing facilities, grocery stores, schools / classrooms, etc. A light emitting unit is provided for reducing the microbial pressure in a building, in particular from zoonoses, aerosols, bacteria and virus on surfaces of the animals and/or humans and surfaces of the interior of the building, preferably in combination with sensors, while at the same time being configured for promoting the formation of natural vitamin D3 in animals and/or humans, and preferably also providing visible work light. One embodiment relates to a light emitting unit for 1) reducing the microbial pressure, and 2) stimulating the production of natural vitamin D3, the light emitting unit comprising at least a first UV-B LED configured for emitting monochromatic UV-B light having a maximum intensity between 292-302 nm, preferably between 295-299 nm, more preferably between 296-298 nm, most preferably at 297 nm, and at least a second UV-B LED configured for emitting monochromatic UV-B light having a maximum intensity between 278-288 nm, preferably between 281-285 nm, more preferably between 282-284 nm, most preferably at 283 nm and/or at least a first UV-C LED configured for emitting monochromatic UV-C light having a maximum intensity between 228-238 nm, preferably between 231-235 nm, more preferably between 232-234 nm, most preferably at 233 nm.



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