



R&D Project Air purification via UV-C LEDs

AES researches air purification with UV-C LED lighting systems

To find solutions for safe flying in relation to viruses and the risk of infection, AES is researching UV-C LED lighting solutions for aviation.

Here, AES is focusing particularly on the wavelengths that destroy DNA most effectively. Special lenses allow the UV-C light to be further focused.

It is predicted that the efficiency of the LEDs can be increased by 50% in the next 10 years and that the production price can be reduced at the same time. A big advantage besides air purification is that these LEDs do not produce ozone.

The mode of action is as follows:

- + Absorption of the radiation in the DNA/RNA
- + The bonds in the bases break and recombine
- + There is no more duplication of DNA during cell division
- + Result: airborne pathogens are inactivated and cannot multiply

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