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Cathodoluminescent UV Sources for Biomedical Applications

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Ultraviolet radiation is widely used in biomedical practice. In some areas, its use is limited by the lack of sufficiently cheap sources of the desired spectrum and power. The prototypes of mercury-free cathodoluminescent UV-radiation sources are manufactured. They use field emission cathodes on the basis of carbon fiber. These sources exhibit various UV spectra depending on the phosphors used. New types of UV-emitting cathode-ray-tube phosphors are suggested.