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Cathodoluminescent UV Sources for Air Disinfection Applications

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Cathodoluminescent UV-light (peaked at 315 nm and 355 nm) sources have been created using commercially available phosphors, with photocatalytic activity observed at irradiation of titanium dioxide. The power density of UV radiation is higher than 10 mW/cm2. The photocatalytic efficiency was estimated by measuring the oxidation rate of acetone vapors (reaction rate exceeds 2 ppm/min).

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