

Incandescence is a general term for heat-driven light emissions which include the simple case of blackbody radiation. Incandescence occurs because the filament resists the flow of electrons. This resistance heats the filament to a temperature where part of the radiation falls into the visible spectrum. The majority of this radiation, however, is emitted in the invisible infrared part of the spectrum which is why incandescence light bulbs are inefficient and are gradually being replaced by compact fluorescent light (CFL) which gives more visible light for the same amount of electric energy. CFL is a type of fluorescent lamp which is a gas discharge lamp that uses electricity to excite mercury vapor atoms which will produce short wave ultraviolet light that then causes a phosphor to fluoresce, producing visible light. CFL always require a ballast to regulate the flow of power through the lamp and a gas-filled tube. Distinguishing between phosphorescence and fluorescence, the fluorescent paint glows under ultraviolet light but stops glowing as soon as the lamp is turned off. A phosphorescent paint keeps glowing for a while because phosphorescent substances have the ability to store up light and release it gradually.