

Re: UV nail lamps for EPROM

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- *From:* Mike Monett <No@xxxxxxxxxx>
 - *Date:* Fri, 18 May 2007 16:56:16 +0000
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"Roger Hamlett" <rogerspamignored@xxxxxxxxxxxxxxxxxxxxxxxx> wrote:

> GE, publish the spectrum of their lamps, and show a small peak at
> 404.656nm, and a second somewhat larger one at 435.833nm, together
> with a general very low level of radiation beyond this. The 'black
> light' type lamps, typically produce perhaps 10* the peak
> intensity of either of these lines, at the shorter wavelength of
> about 370nm. GE, say that their lights should be used with
> 'CovRguard' fittings, or with UV sleeves, to completely eliminate
> UV (I don't know who said the bulbs themselves produce 'no' UV, if
> you talk to their commercial division, and specify that there must
> be no radiation above 400nm, in the illuminated area, they specify
> sleeves to be used.). They say that the total UV (beyond 400nm),
> is around 1/500th the level from noonday Sun, but not that their
> is 'none'.

> You'd need to work out whether it might be the two visible lines
> at the top of the spectrum, that are producing the effect, or
> 'UV'. I'd suspect it might be the visible lines, rather than 'UV'.

> Best Wishes

Hi Roger,

Thanks for your very interesting post. Can you give the url for the info on the GE spectrum?

Untill now, my sources for the reaction of light on silver chloride claimed that UV light was needed to knock an electron loose from the chlorine.

However, I just discovered the following entry that shows the reaction is stronger at UV, but it still occurs even with red light:

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After hearing about William Herschel's discovery of infrared light in 1800, Johann Ritter decided to see if he could detect light beyond the other end of the spectrum – past violet. In 1801, he was experimenting with silver chloride, which turned black when exposed

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to light. He had heard that blue light caused a greater reaction in silver chloride than red light did and decided to conduct an experiment to see if this was indeed true. Ritter directed sunlight through a glass prism to create a spectrum and then placed silver chloride in each color. He found that the silver chloride increasingly darkened from the red to the violet