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Investigation on the Properties of Luminecent Concrete-(Lightcrete)

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Abstract: *The traditional concrete currently used in the construction industry has a greyish color and high density. The high density of the concrete prevents the passage of light through it. Therefore, the concrete couldn't illuminate itself. On the context, it has been identified that the concrete can be provided with the property of luminance by varying the property of cement. The cement will be induced with luminance property by adding certain photo luminescent chemical substances to it. This project presents an investigation of the luminescent property of the concrete by modifying the property of the cement. These elements are also proven to be inert and causes minimal harm to the environment. From the results it is also found that the luminescent concrete also possesses considerable compressive strength as like traditional concrete. The emergence of photoluminescent concrete has the ability to create a spectacular change in the field of construction and architecture. In many nations, the illumination of highways and rural households are still a biggest challenge. Lack of light in the night leads to many social issues and accidents. In these circumstances the photoluminescent concrete can play a drastic role. It is not only meant for these instances it can also be used to improve the ambience thereby reducing the cost of electricity used for decorations. This project builds on two existing areas of research in order to investigate new concrete materials.*

Keywords: Luminescent Pigment, Light emitting concrete

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