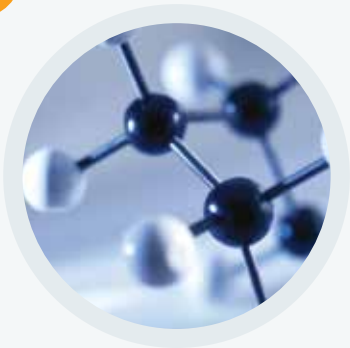

Tunable Light Emitters using Carbon Quantum Dots

Researcher

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Research

A new technology has been developed for fabrication of solid-state lighting devices comprising luminescent carbon dots (C-dots) encapsulated in transparent polymer films. The simple one-step synthesis scheme yields luminescent films in which colors can be tuned by selection of the carbon dots embedded.

Goals and Benefits

- Simple and “green” technology for production of transparent luminescent films having different colors.
- Inexpensive and non-hazardous reagents. Technology is easily scalable.
- Generation of “warm” light, particularly warm white light is feasible.

Applications & Products

- Light emitting devices
- Light converters
- Light transformer sheets, for example in greenhouse applications

Patent Status

Patent applications pending.