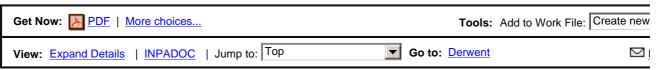
The Delphion Integrated View



Title: WO03038914A3: NEAR INFRA-RED COMPOSITE POLYMER-NANO MATERIALS AND ELECTRO-OPTICAL DEVICES PRODUCED THEF

French

PDerwent Title: Composite material useful in manufacturing electro-optical devices, e.g.

light emitting diodes, contains host material incorporating semiconductor nanocrystals that emit/absorb energy in near infrared spectral range

[Derwent Record]

Country: **WO** World Intellectual Property Organization (WIPO)

A3 Subsequent Publ. of the Int. search report i (See also:

WO03038914A2)

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The invention comprises a composite material comprising a host **PAbstract**:

> material in which are incorporated semiconductor nanocrystals. The host material is light-transmissive and/or light-emissive and is electrical charge-transporting thus permitting electrical charge transport to the core of the nanocrystals. The semiconductor nanocrystals emit and/or absorb light in the near infrared spectral

range. The nanocrystals cause the composite material to

emit/absorb energy in the near infrared (NIR) spectral range, and/or to have a modified dielectric constant, compared to the host material. The invention further comprises electro-optical devices composed of this composite material and a method of producing them. Specifically described are light emitting diodes that emit light in the NIR and photodetectors that absorb light in the same region.

[French]

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PDescription [From equivalent WO03038914A2] + NEAR INFRA-RED Expand description COMPOSITE POLYMER-NANOCRYSTAL MATERIALS AND **ELECTRO-OPTICAL DEVICES PRODUCED THEREFROM** + FIELD OF THE INVENTION

The present invention relates to the fields of molecular electronics and optoelectronics. More specifically, the invention ielates to composite materials consisting of a suitable host material into which are incorporated, by blending, mixing, or any other suitable means semiconductor nanocrystals such that the composite material has a dielectric constant different than that of the host material and/or emits/absorbs energy in the near infrared (NIR) spectral range and to electro-optical devices composed of this composite material.

- + BACKGROUND OF THE INVENTION
- **+ SUMMARY OF THE INVENTION**
- **+** BRIEF DESCRIPTION OF THE DRAWINGS
- **± DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS**

Other Abstract None











this for the Gallery...

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