

Title (en)
LIGHT EMITTING, PHOTOVOLTAIC OR OTHER ELECTRONIC APPARATUS AND SYSTEM AND METHOD OF MAKING SAME

Title (de)
LICHTEMITTIERENDE, PHOTOVOLTAISCHE ODER ANDERE ELEKTRONISCHE VORRICHTUNG SOWIE SYSTEM UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
APPAREIL ET SYSTÈME D'ÉMISSION DE LUMIÈRE, PHOTOVOLTAÏQUE OU ÉLECTRONIQUE ET LEUR PROCÉDÉ DE FABRICATION

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Abstract (en)
[origin: WO2011034908A1] The present invention provides an electronic apparatus, such as a lighting device comprised of light emitting diodes (LEDs) or a power generating apparatus comprising photovoltaic diodes, which may be created through a printing process, using a semiconductor or other substrate particle ink or suspension and using a lens particle ink or suspension. An exemplary apparatus comprises a base; at least one first conductor; a plurality of diodes coupled to the at least one first conductor; at least one second conductor coupled to the plurality of diodes; and a plurality of lenses suspended in a polymer deposited or attached over the diodes. The lenses and the suspending polymer have different indices of refraction. In some embodiments, the lenses and diodes are substantially spherical, and have a ratio of mean diameters or lengths between about 10: 1 and 2: 1. The diodes may be LEDs or photovoltaic diodes.

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