

Solid-State Lighting Patents Submitted as a Result of DOE-Funded Projects

A record 15 solid-state lighting patents were submitted in fiscal year 2005 as a result of Department of Energy-funded research projects. This record number demonstrates the value of DOE SSL projects to private companies and notable progress toward commercialization. Since DOE began funding SSL research projects in 2000, a total of 31 patents have been applied for or awarded as follows:

- Large businesses 18
- Small businesses 7
- Universities 5
- National laboratories 1

Organization	Title of Patent
Agiltron, Inc.	Light Emitting Diodes with Porous SiC Substrate and Method for Fabricating
Cree, Inc.	Ultra-Thin Ohmic Contacts for P-Type Nitride Light Emitting Devices <i>One additional patent pending</i>
GE Global Research	A Mechanically Flexible OLED Light Source with Increased External Quantum Efficiency Thin Electrodes with a Collection Grid for Organic Light Emitting Diodes Luminaire for Light Extraction from a Flat Light Source Organic Light-Emitting Devices with Integrated Series Connection Efficient and Stable Operation of Organic Light Emitting Diodes Hybrid Electroluminescent Devices Organic Electroluminescent Devices Having Improved Light Extraction Array for Area Illumination by Organic Light Emitting Diodes Light-Emitting Device with Organic Electroluminescent Material and Photoluminescent Material <i>Two additional patents pending</i>



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Lumileds Lighting U.S., LLC	Cantilever Epitaxial Process
Maxdem Incorporated	Polymer Matrix Electroluminescent Materials and Devices
OSRAM Opto Semiconductors, Inc.	Integrated Fuses for Organic Light Emitting Diode Lighting Device Organic Light Emitting Diodes with Phosphors Novel Method to Generate High Efficient Devices Hybrid Light Source
Pacific Northwest National Laboratory	Thin Films Based on Organic Phosphine Oxide Compounds for Electronic Applications
PhosphorTech Corporation	Light Emitting Device Having Selenium-Based Fluorescent Phosphor Light Emitting Device Having Silicate Fluorescent Phosphor Light Emitting Device Having Sulfoselenide Fluorescent Phosphor
University of California, Santa Barbara	Semiconductor Micro-Cavity Light Emitting Diode Horizontal Emitting, Vertical Emitting, Beam Shaped, Distributed Feedback Lasers by Growth over a Patterned Substrate Single or Multi-Color High Efficiency Light Emitting Diode (LED) by Growth over a Patterned Substrate
Rensselaer Polytechnic Institute	Silicone Resin Encapsulants for Light Emitting Diodes Novel Package for Producing White Light with Short-Wavelength LED/RCLEDs and Down Conversion Phosphors
Universal Display Corporation	Organic Light Emitting Device Structure for Obtaining Chromaticity Stability Organic Light Emitting Devices for Illumination