LED Lighting - Key Patent Analysis: Remote Phosphor

Description:

LEDs, which are semi-conductor devices that convert electricity into light by the properties of compound semi-conductors, have higher energy efficiency and cost less for replacement due to longer lifetimes than existing lighting systems, and have high resistance to impact or vibration. Furthermore, LEDs have advantages in terms of energy saving and protection of the environment since they do not use toxic substances such as mercury, which give an impetus to their market entry as new lighting systems to replace existing lighting systems.

To facilitate replacement of existing lighting systems, there is intense competition to develop technologies for improving LED efficiency as well as low cost production. Among them, the remote phosphor method is adopted by many companies, since it can improve white LED efficiency by 30 to 40% compared with existing ones by minimizing heat generation and light losses. Some companies such as Intematix, and Cree, have occupied patent rights in advance. Especially the specialized phosphor manufacturer Intematix is taking aggressive steps to protect its technologies. The company, for instance, has uploaded a video that publicizes its intellectual properties and IP licensing. In addition, Cree and Philips have signed a mutual patent licensing agreement for LED technologies including remote phosphors. ABL IP as one of NPEs (non-practicing entities) is very aggressive in patent acquisition in this filed.

Since phosphors are one of the fields where a strong patent barrier has been established by a few companies, there are a considerable number of patents in dispute, and new patent issues continue to emerge. Considering major Korean, Japanese, and Taiwanese LED companies began R&D on remote phosphors somewhat late, fierce patent disputes are expected in the field of remote phosphor.

In this context, SNE presents analysis of the key patents of remote phosphors. From a population of 5,568 patents that have been published until October, 2012, in Korea, the United States, Japan, and Europe, total 356 patents have been selected as validated patents on the field of remote phosphor. Among them, 91 cases have been selected as key patents, for which technology flowcharts and patent summaries are provided. For top patent applicants such as Intermatix, Philips, and Osram, in-depth analysis is provided including technology flow charges and key patent analysis for each company.

In particular, according to the result of the patent analysis, ABL IP, which specializes in purchasing patents, is in the upper ranks. This suggests it is more important to prepare future patent disputes.

This report is expected to be a great help to examine the patent trend and related key patents in the field of remote phosphor and establish counterstrategies.

This report features

- Analysis of 356 key patents worldwide and patent summaries of 91 key patents in total 175 pages
- Analysis of overall patent trend, key patent trend, and patent issues
- Technology flowcharts and analysis of patent issues of leading remote phosphor companies "

Contents:

Patent search result and selection of validated patents
(country/applicant/ Top 10 applicants)

4. Key patent analysis - key patent analysis

Key patent analysis overview - key patent analysis
- Method for Key patent selection
- Result of key patent selection
- Key patents of each company
- Key patent technology flowchart

INTEMATIX- key patent analysis -key patent analysis
- Key patent current status of key patents
- Technology flow chart Technology flowchart
- Key patent summary Key patent summary

CREE - key patent analysis
- Current status of key patents
- Technology flowchart
- Key patent summary

PHILIPS -key patent analysis
- Current status of key patents
- Technology flowchart
- Key patent summary

ABL IP -key patent analysis
- Current status of key patents
- Key patent summary

OSRAM -key patent analysis
- Current status of key patents
- Key patent summary

5. In-depth analysis of key patents of leading companies

INTEMATIX analysis of patented technologies
- INTEMATIX - technology issue
- INTEMATIX- patent portfolio
- In-depth analysis of key patents
CREE analysis of patented technologies
- CREE - technology issue
- CREE- patent portfolio
- In-depth analysis of key patents

6. Analysis of patent acquisition of NPE (Non-Practicing Entity)

Result of patent trend analysis and implications
- Result of key patent analysis and implications

7. Conclusion/implication

Remote Phosphor- patent trend
Key technology trend of leading companies
Patent issue
Implication

Ordering: Order Online - http://www.researchandmarkets.com/reports/2333529/

Order by Fax - using the form below

RESEARCHANDMARKETS

Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.

Fax Order Form

To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit

http://www.researchandmarkets.com/contact/

Order Information

Please verify that the product information is correct and select the format(s) you require.

Product Name:	LED Lighting - Key Patent Analysis: Remote Phosphor
Web Address:	http://www.researchandmarkets.com/reports/2333529/
Office Code:	OC8DIRPLOOUSYR

Product Formats

Please select the product formats and quantity you require:

	Quantity	
Hard Copy:	☐	€3,301 + Euro €50 Shipping/Handling
Electronic (PDF) - Single User:	☐	€3,301

* Shipping/Handling is only charged once per order.

Contact Information

Please enter all the information below in **BLOCK CAPITALS**

Title: Mr ☐ Mrs ☐ Dr ☐ Miss ☐ Ms ☐ Prof ☐

First Name: _____ Last Name: _____

Email Address: * _____

Job Title: _____

Organisation: _____

Address: _____

City: _____

Postal / Zip Code: _____

Country: _____

Phone Number: _____

Fax Number: _____

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)

Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card:

- ☐ American Express
- ☐ Diners Club
- ☐ Master Card
- ☐ Visa

Cardholder's Name _____

Cardholder's Signature _____

Expiry Date _____ | _____

Card Number _____

CVV Number _____

Issue Date _____ | _____
(for Diners Club only)

☐ Pay by check:

Please post the check, accompanied by this form, to:

Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer:

Please transfer funds to:

Account number	833 130 83
Sort code	98-53-30
Swift code	ULSBIE2D
IBAN number	IE78ULSB98533083313083
Bank Address	Ulster Bank, 27-35 Main Street, Blackrock, Co. Dublin, Ireland.

If you have a Marketing Code please enter it below:

Marketing Code: _____

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp