Following the UV curing boom, disinfection and purification applications are finally ready to take off

UV LEDs - Technology, Manufacturing and Application Trends report – July 2016

LYON, France – August 25, 2016: In a short term, UV curing will drive the UV LED market, announces Yole Développement (Yole) in its new LED report entitled UV LEDs: Technology, Manufacturing and Applications Trends.

But UVC LED’s recent price reduction will see the UV disinfection/purification market take over the UV curing market by 2019/2020. In this context, Yole’s analysts expect the UVC LED market to strongly grow from US$7 million in 2015 to US$610 million by 2021.

With an increased penetration rate in all applications, the UVA LED market will grow from US$107 million in 2015 to US$357 million by 2021. In addition to a moderated growth due to price pressure, Yole announces a very strong increase in number of devices.

Under this new UV LED report, 2016 edition, Yole details the latest technology and market trends. This comprehensive survey provides a deep understanding of the UV lamp business and its technological transition to UV LEDs. It is a thorough analysis of each UV lamp application (UVA/UVB/UVC) with a specific focus on UV curing, UV disinfection/purification and analytical instruments using UV light. Yole’s report highlights the global UV LED industry trends, from substrate to system and details the main challenges and axis of research.

“The UVC LED industry is still small but strong growth is expected in the next 18 months due to dramatic price reductions”, explains Pierrick Boulay, Market & Technology Analyst, LED & OLED at Yole. And he adds: “In 2016 prices are 1/8-1/10 of what they were in 2015.”

This has been triggered by the industry’s development, its transition to mass production and improved device performance. With most of the industry believing that US$1-US$4/mW is the price that would trigger mass market adoption we are
getting close to a UVC LED market boom. Another positive sign is that most UVC LED manufacturers are now focusing on developing cost-effective solutions rather than improving device power output. In parallel, the UVC LED industry continues to work on increasing lifetime and developing lower wavelength devices, below 280nm.

In parallel, UVA LEDs continue to progress in the UV curing space. “Continuous improvement of device performance coupled with price reduction has allowed the technology to be increasingly adopted in UV curing applications”, asserts Pars Mukish, Business Unit Manager, at Yole. “Penetration of UV LEDs is increasing but we observe differences in adoption rates depending on application.” Small size and low speed applications like spot adhesive and digital inkjets have the highest adoption rate, and most new developments use UV LEDs. This is due to the small module size and low irradiance level needed that limits the extra cost of integrating UV LEDs compared to the total price of systems like inkjet printers. On the other hand, applications that need high speed processes and/or high levels of irradiance such as screen printing or coating applications have lower adoption rates. This is because UV LED performance is not yet good enough to fully replace traditional mercury lamps.

“Today UVA still represents the largest UV LED market but this trend could change in the future as UV LED performances increase,” announces Yole’s analysts. UV LEDs also enable new applications inaccessible to UV lamp. If these new applications take off, they could represent and additional revenue of nearly US$143 million in 2021…

Yole’s UV LED report highlights the market structure, UV LED market drivers and associated technical challenges, recent trends and new applications created by UV LEDs. It also includes UV LED market size split by application, and much more. To discover this new report in details, go to i-micronews.com, LED reports section.
About UV LEDs - Technology, Manufacturing and Application Trends report

After fast adoption of UVA LEDs for curing applications, UVC LEDs for purification/disinfection are now ready

For more information about the report, please contact David Jourdan - Phone: +33 472 83 01 90

- About the author:
  Pars Mukish holds a master degree in Materials Science & Polymers (ITECH - France) and a master degree in Innovation & Technology Management (EM Lyon - France). Since 2015, Pars Mukish has taken on responsibility for developing LED, OLED and Sapphire activities as Business Unit Manager at Yole Développement. Previously, he has worked as Marketing Analyst and Techno-Economic Analyst for several years at the CEA (French Research Center).

  Pierrick Boulay works as Market and Technology Analyst in the fields of LED, OLED and Lighting Systems to carry out technical, economic and marketing analysis at Yole Développement, the “More than Moore” market research and strategy consulting company. He has experience in both LED lighting (general lighting, automotive lighting…) and OLED lighting. In the past, he has mostly worked in R&D department for LED lighting applications. Pierrick holds a master degree in Electronics (ESEO - France).

- Companies cited in the report:


Founded in 1998, Yole Développement has grown to become a group of companies providing marketing, technology and strategy consulting, media and corporate finance services. With a strong focus on emerging applications using silicon and/or micro manufacturing, the Yole Développement group has expanded to include more than 50 collaborators worldwide covering MEMS, Compound Semiconductors, LED, Image Sensors, Optoelectronics, Microfluidics & Medical, Advanced Packaging, Manufacturing, Nanomaterials, Power Electronics and Batteries & Energy Management.

The “More than Moore” company Yole and its partners System Plus Consulting, Blumorpho and KnowMade support industrial companies, investors and R&D organizations worldwide to help them understand markets and follow technology trends to develop their business.

- Consulting & Financial Services: Jean-Christophe Eloy (eloy@yole.fr)
- Reports Business: David Jourdan (jourdan@yole.fr)
- Press Relations & Corporate Communication: Sandrine Leroy (leroy@yole.fr)

####