

BJB conceptual study on the contacting of organic light emitting diodes (OLEDs)

Prerequisites...

- Device for fixing and/or contacting of OLEDs-light areas
- Conceptual study for the research on new technologies in the field of general illumination
- Snap fixing connector and screw fixing
- Option for through wiring



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Your Connection to Light



Future concept OLEDs
A new media we are intensively dealing with



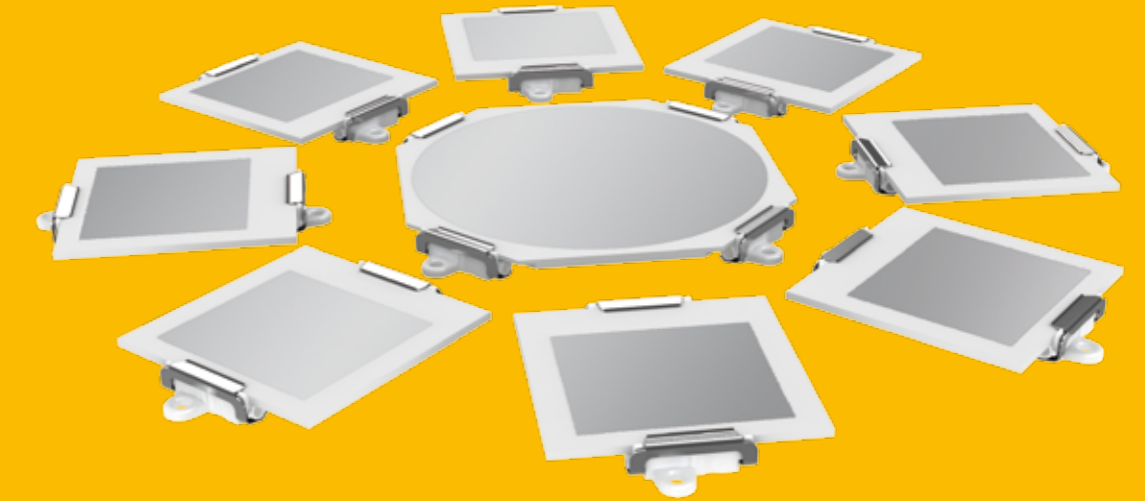
Your Connection to Light



From point to surface. A new concept which will change lighting.

OLED

New concepts for General Illumination.
With BJB as development partner.



OLEDs (short for: Organic Light Emitting Diode) are a new generation of "Light media", only comparable to current lamps to a limited degree. For example OSRAM Opto Semiconductors makes the point of a future potential that "could nearly outshine all other light sources". The discovery of this potential happened as follows: it was first patented by Kodak dating back to the 1980's. It will still take some years until the final distribution into the mass consumer market will eventually take off. And we, as being part of the lighting industry, intend to use our "bridges to light" in order to explore and develop OLEDs.

What is so fascinating about this new technology?

Well, sure, the technical values, that OLEDs have, are in part quite spectacular: with energy saving potential, low production costs, long life, high light quality and good colour rendering. The real new feature of them, however, is that it is no longer a point or linear light source, but extending to light areas with dimensions up to one square metre. This difference is significant, because it completely opens up new possibilities for the general lighting of rooms. This not only changes the design of light fittings but also our viewing habits in respect of artificial light. In concrete terms: we have to adjust to this evolution in a positive way.

Homogeneous illumination surfaces for new light impressions

Simply put, OLEDs are so-called Lambert-areas with homogeneous light density extending to all directions. One can imagine the way that the lit area always appears equally bright, no matter from which angle it is viewed. The result is homogeneous, glare-free light, almost similar to daylight, an ideal target which artificial lighting has always tried to achieve.

What is the challenge for BJB?

The light-emitting (organic) layers are so thin that they have to be steam-deposited on a substrate layer. To make a long-lasting contact to this delicate layer without destroying it is the challenge for us, the "bridge builder". To achieve this aim we have been working on new solutions exemplarily as partner of OSRAM Opto Semiconductors with the ORBEOS™ elements which are available since November 2009.

First introduced at Light + Building in 2010, they show a development stage which is close to series production but at this stage still being in a state of basic research.

What will the future hold in store?

"Forecasts are difficult, especially when they concern the future." We don't have to apply this witticism with regard to the subject of OLEDs which is at one time

attributed to Karl Valentin, then again to Mark Twain or Winston Churchill. Rather the quote of computer scientist Alan Kay applies that "the best way to predict the future is to invent it."

A valid basis for the OLEDs technology to play a vital part in the mass consumer market of the future are available data at hand, models and studies. This is being highlighted by a funded project of the Federal Ministry for Education and Science

(BMBF) with the name TOPAS 2012 (thousand lumens organic-phosphorescence elements for applications in lighting systems SKZ13N10474) in which BJB is indirectly involved as a partner to OSRAM Opto Semiconductors.

The presentation of our lampholder concept for OLEDs at Light + Building 2010 is only the starting point for further developments in this field. We will constantly keep you informed: via our bridges to light.

