Vision “24h daylight illumination in buildings"

Andreas Hafner, André Kostro, Cristobal Garrido Segura, Sorin Ivanovici

BASF Schweiz AG, Ueberlandstr. 123; CH-8600 Dübendorf, Switzerland;

andreas.hafner@basf.com

Proper daylighting designs in interior spaces may reduce the energy costs of electric lighting and improve the productivity of occupants. It is reported that, the average consumption of electricity for lighting a commercial building is around 25 %. Proper usage of daylighting in offices can reduce this load dramatically. Moreover, daylight brings benefits on both the physical and psychological health of humans. Comfortable daylight can also improve the occupant’s productivity.

To address these issues innovative light-redirection and light guiding system from BASF will be presented based on UV replicated micro structured optical films, offering new dimensions in daylight autonomy for rooms with- and without windows.

In addition, an optical film technology will be discussed allowing to produce high quality LED based light using organic color conversion materials.