

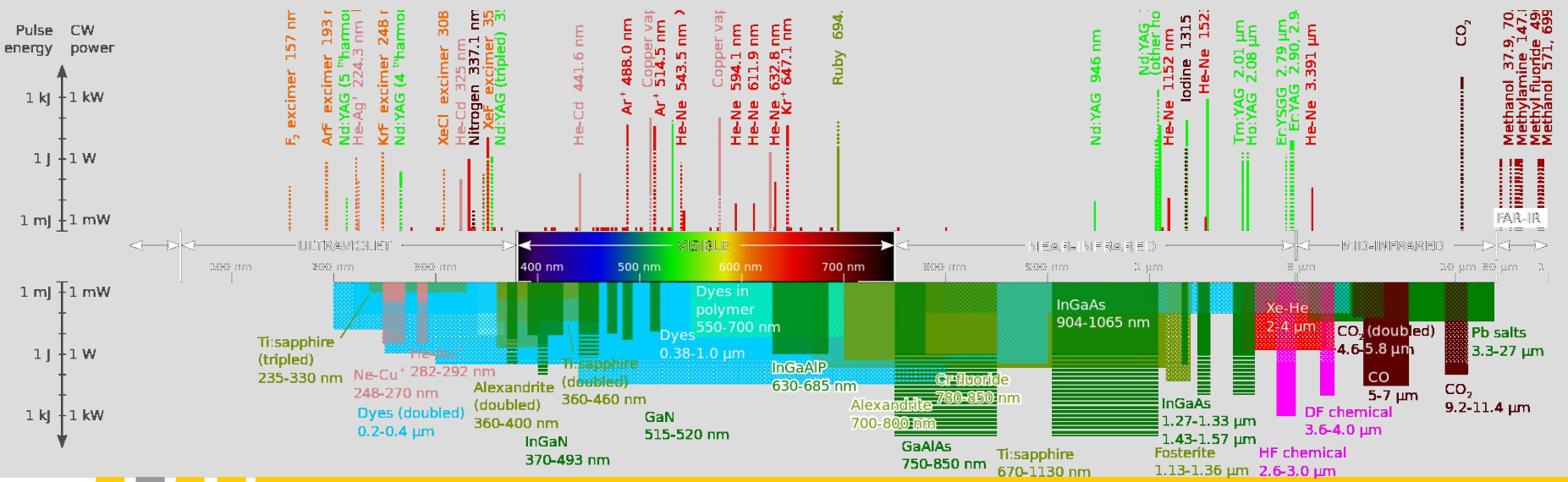
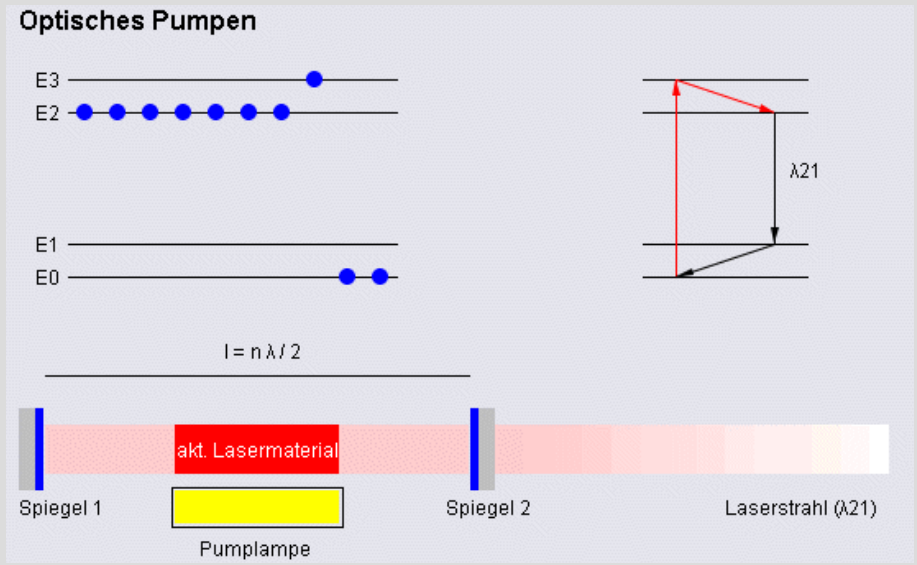
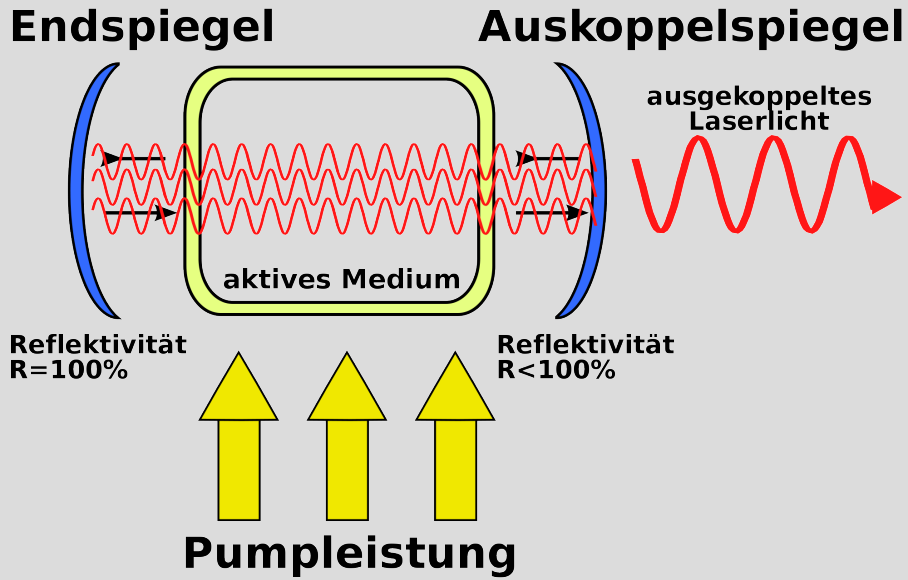
4. Teil (Strahlungsquellen, Empfänger, Bildgeber)

Laser- Prinzip und Aufbau

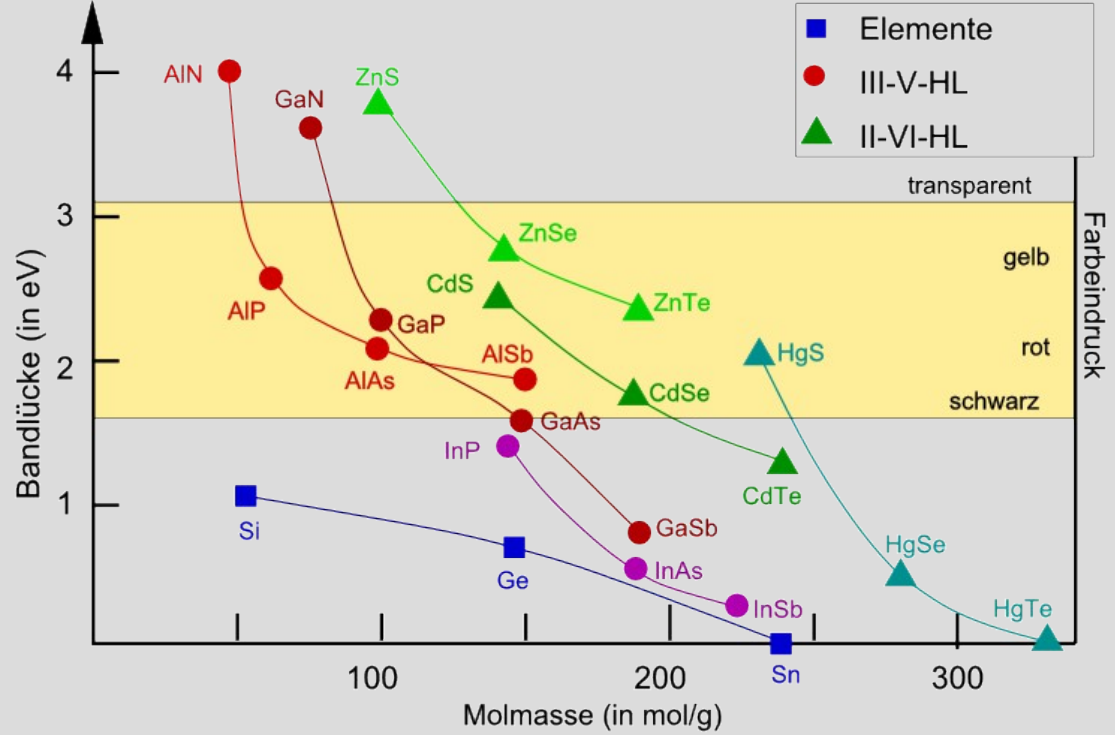
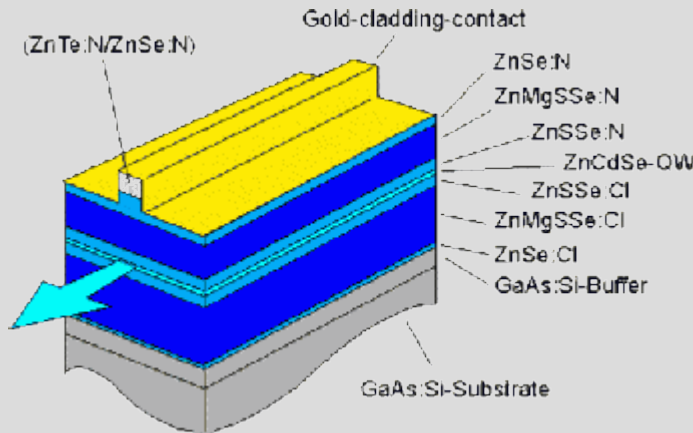
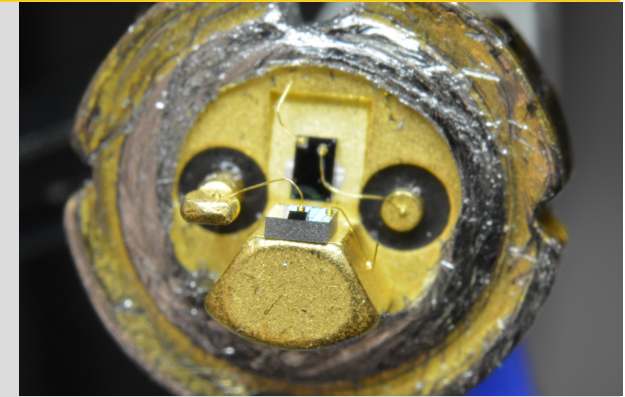
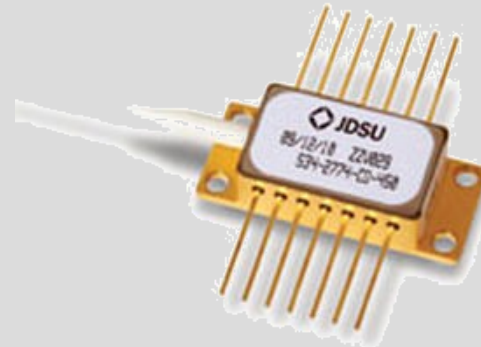
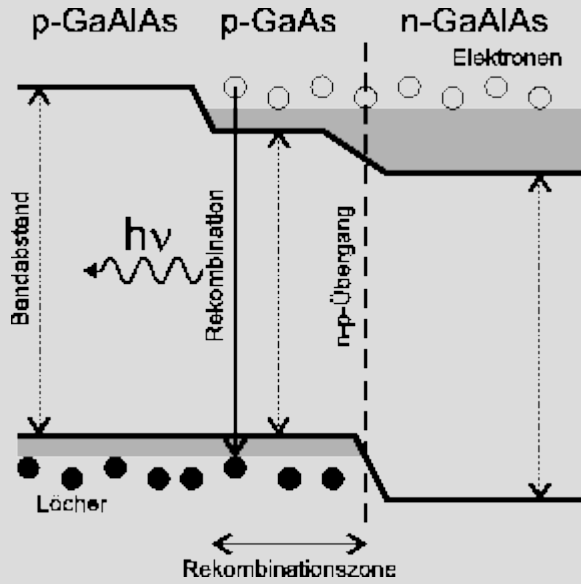
Halbleiterstrahlungsquellen (LD, LED und OLED)

Optische Sensoren: PD, CCD, CMOS, MCP, etc.

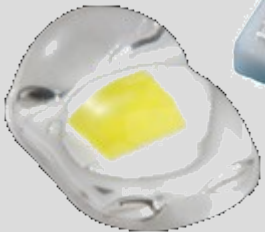
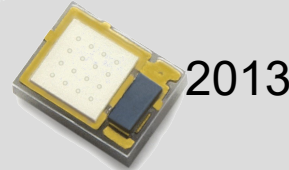
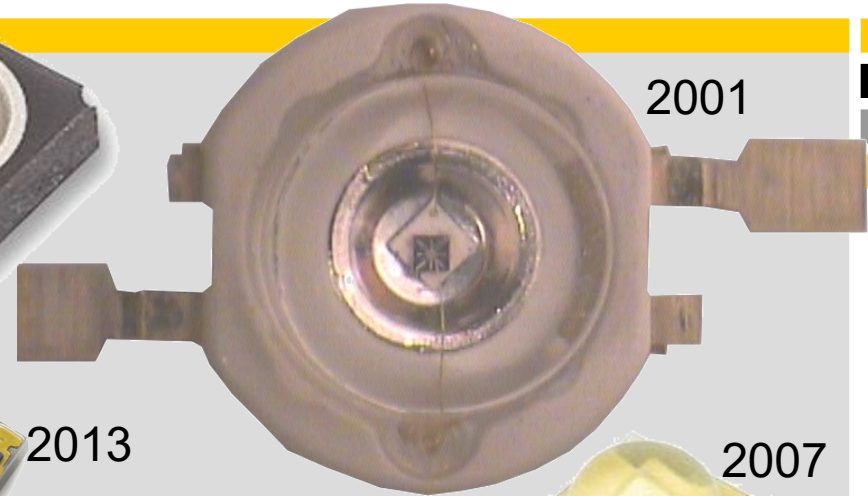
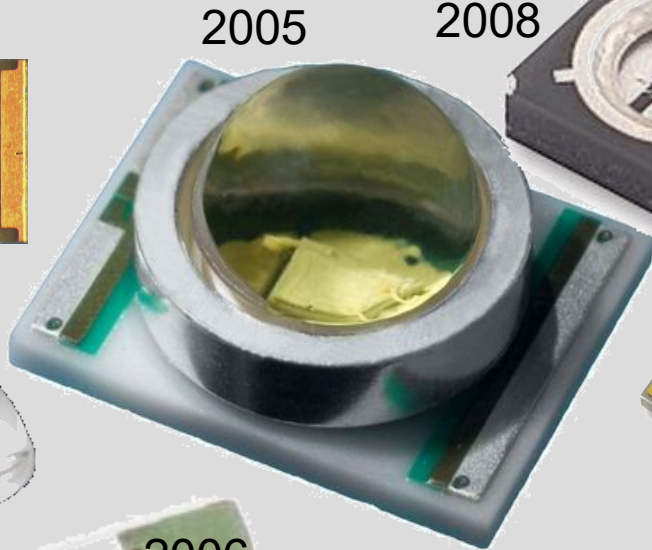
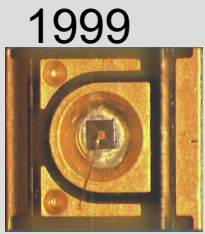
Bildgeber: Displays (LCD, LCOS) und Projektoren



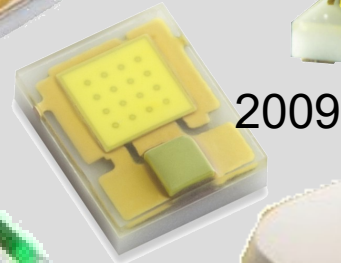
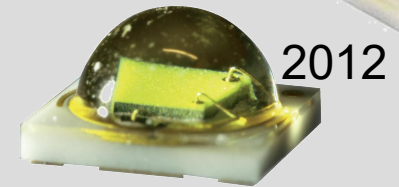
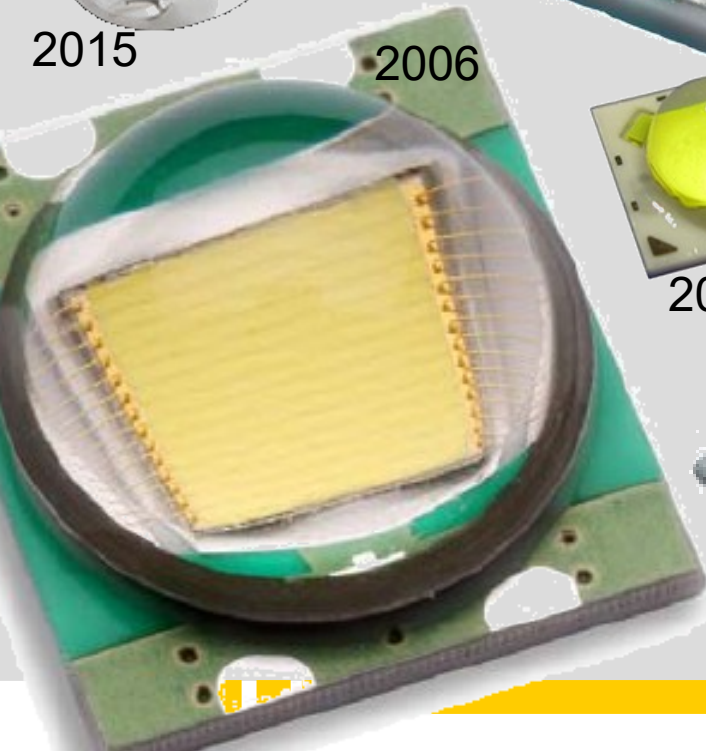
Der Halbleiter-Laser



Bauformen Hochleistungs-LED

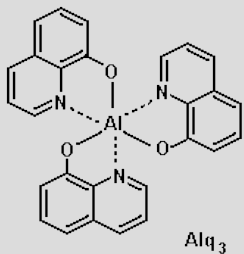


Gleicher Maßstab



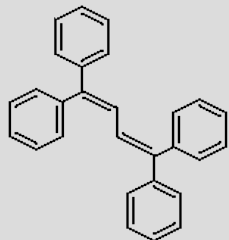


- Quellen (v.l.o.n.r.u.)
- OUT e.V.
 - Segula
 - Panasonic
 - OSRAM
 - Switch Lighting
 - LEDO
 - Philips
 - Synergy
 - Toshiba

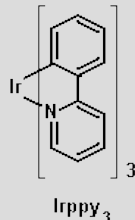


Alq₃

Tris(8-hydroxychinolin)aluminium-Komplex
Aluminium-Hydrochinolinat

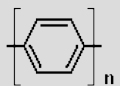


Tetraphenylbutadien



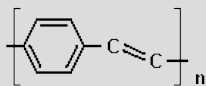
Irppy₃

Iridium-phenyl-pyridin-Komplex



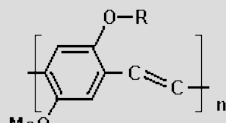
PPP

Poly(p-phenylen)



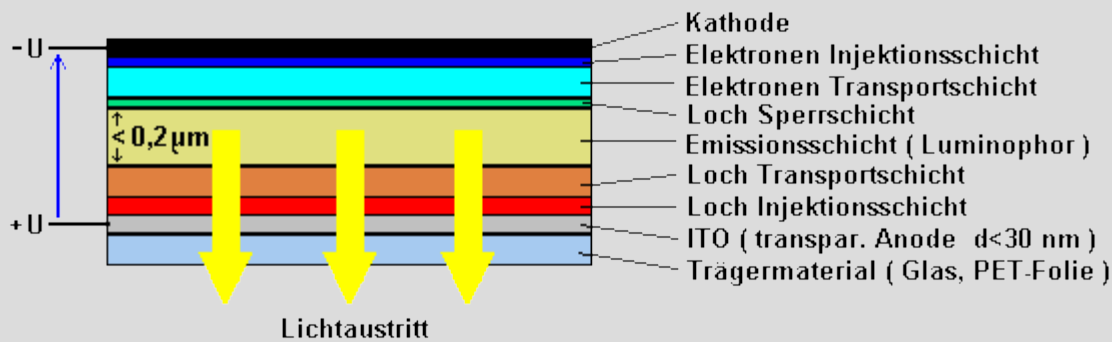
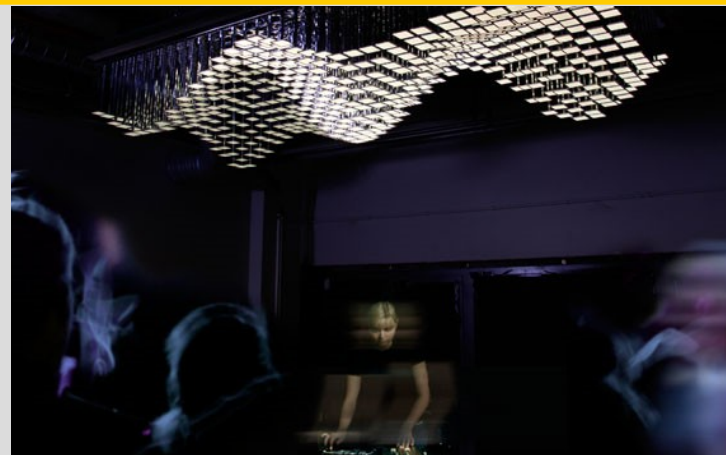
PPV

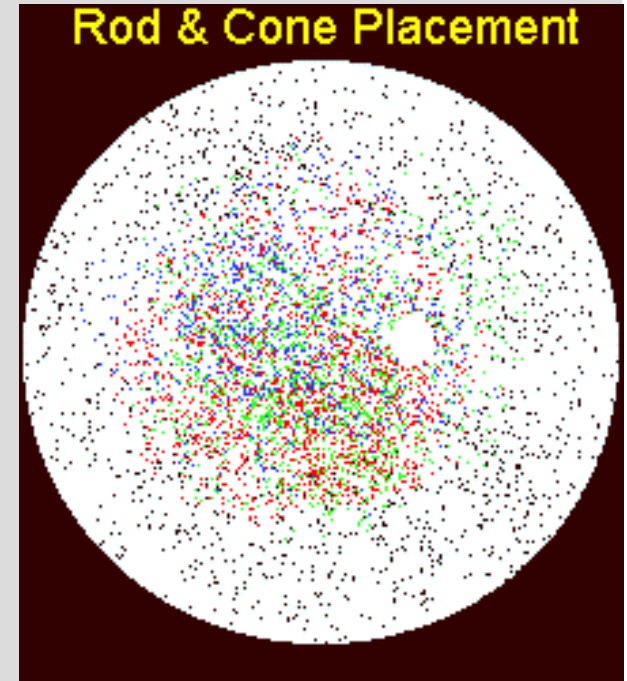
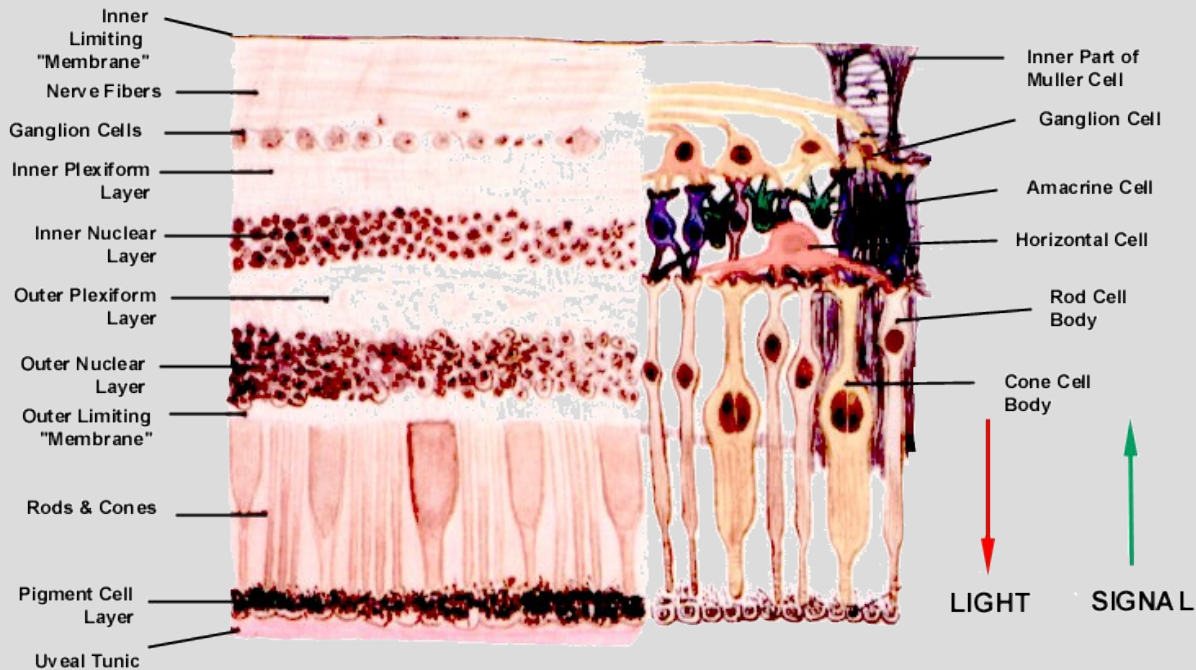
Poly(p-phenylen-vinylen)



MeH-PPV

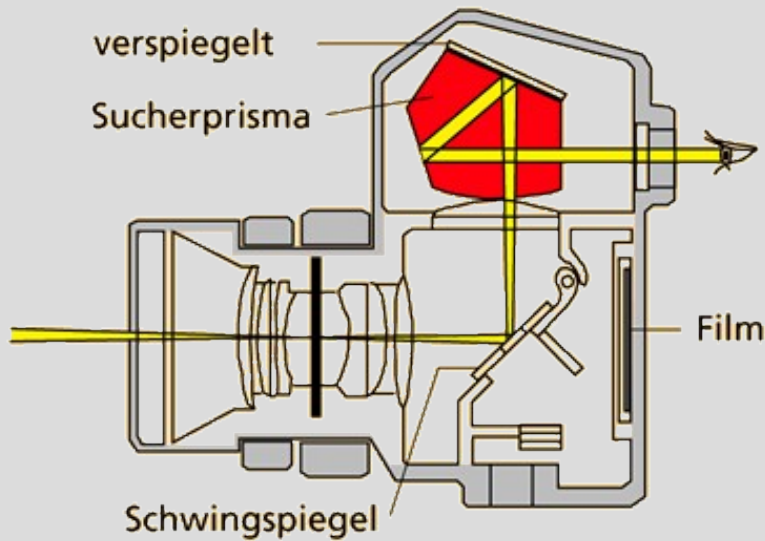
mit Metall- und Alkylgruppen-substituierte PPV



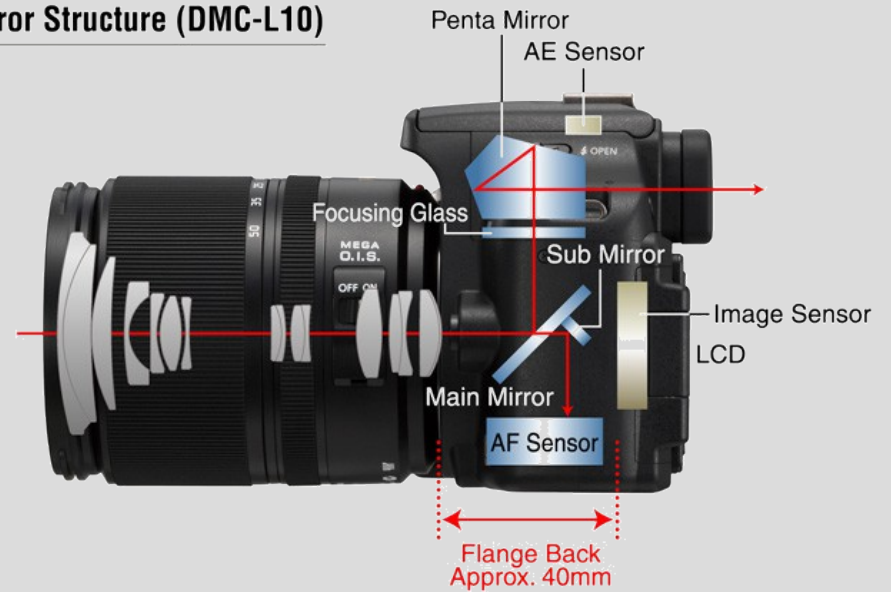


300 Mpixel, bzw. 4,5 Mpixel (durchschnittlich)

Die Kamera (Spiegelreflex)

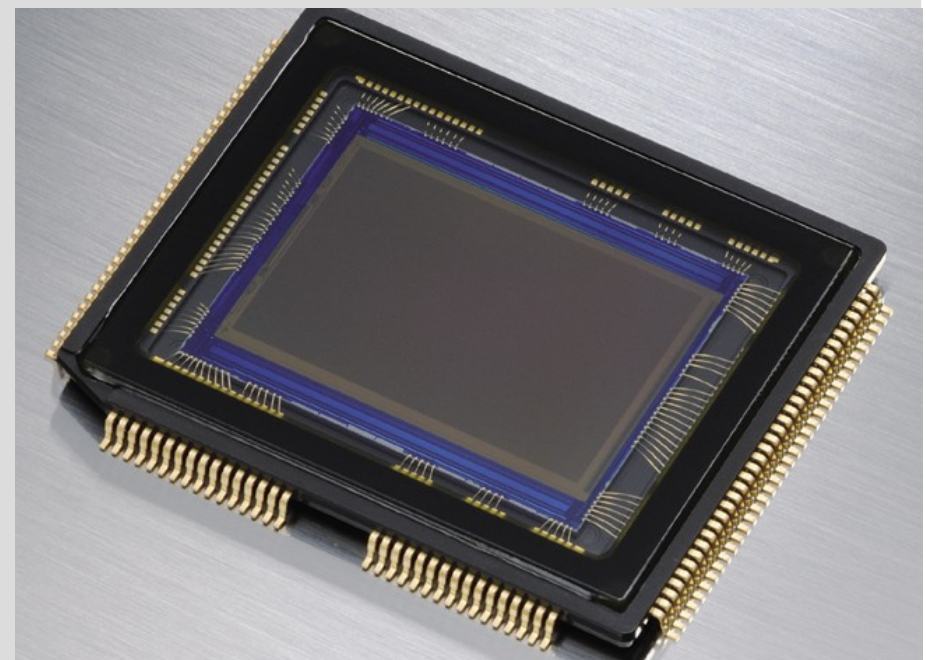
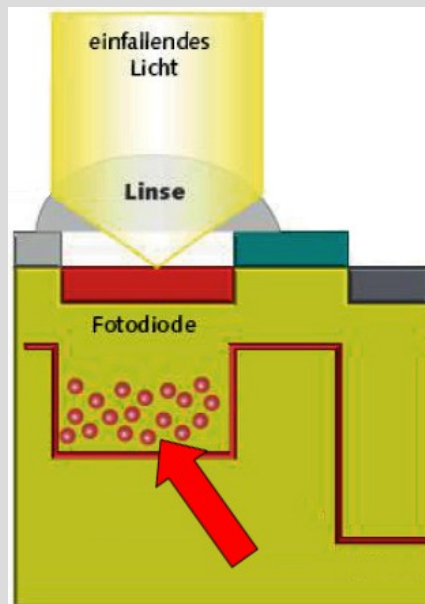
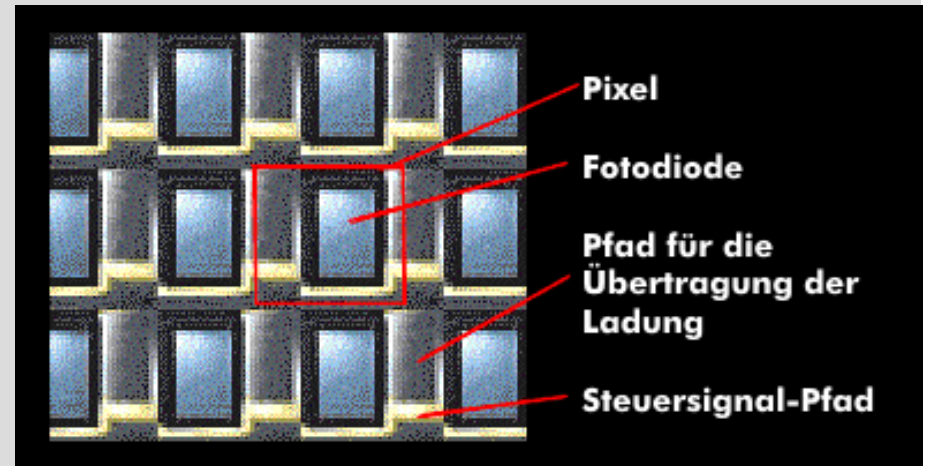
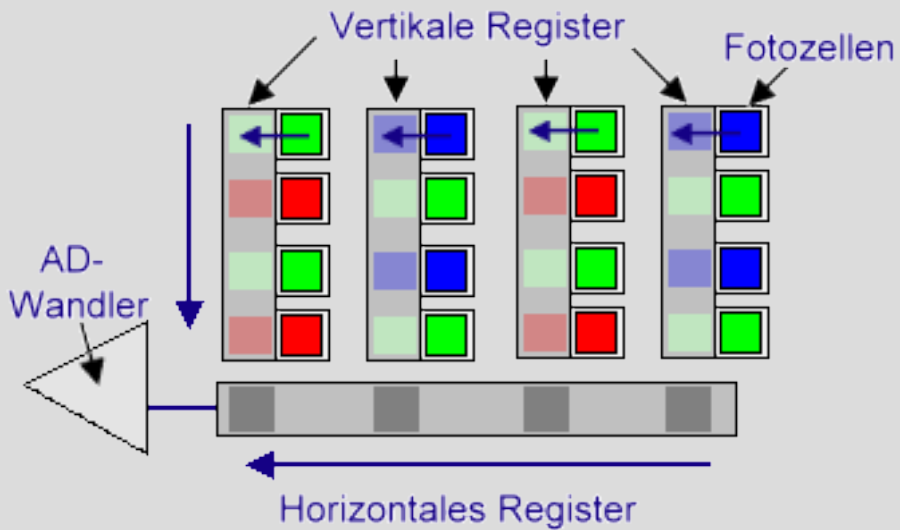


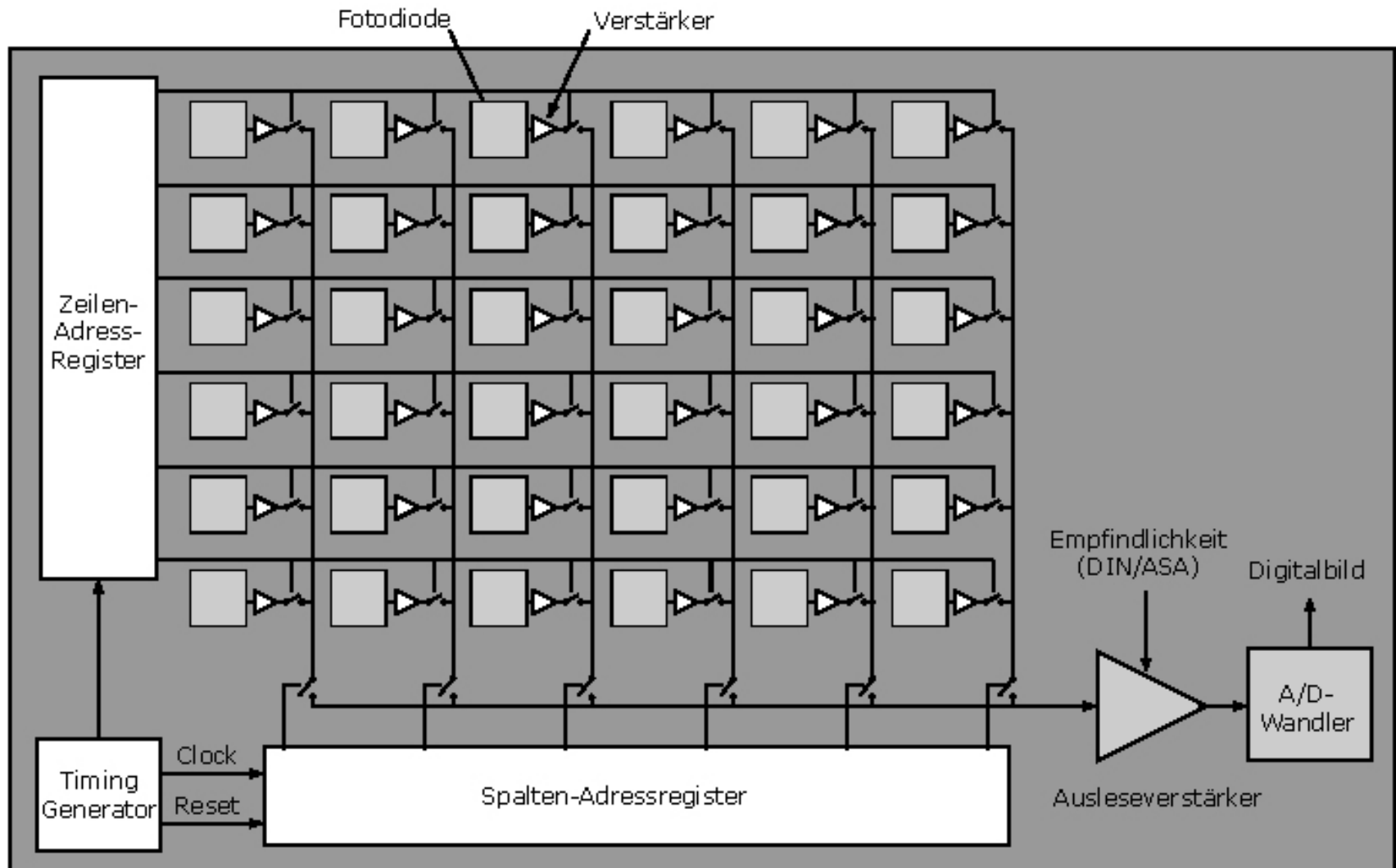
Mirror Structure (DMC-L10)



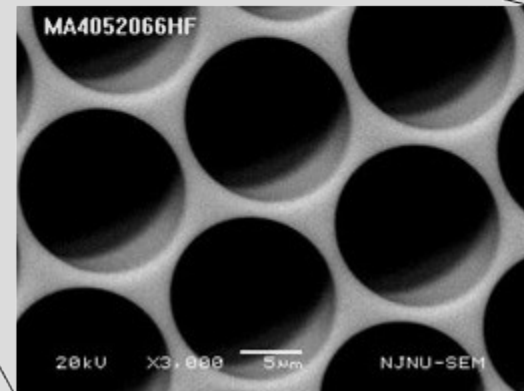
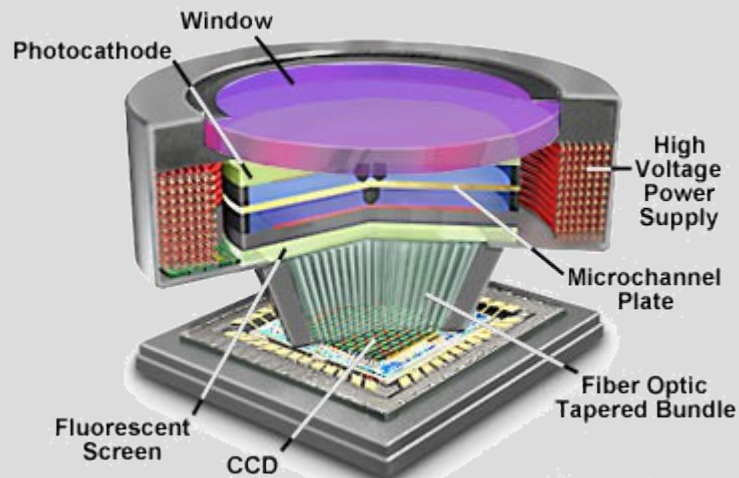
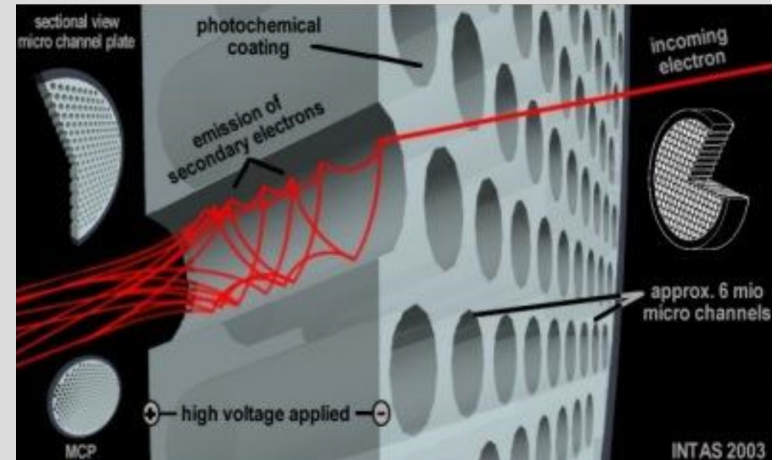
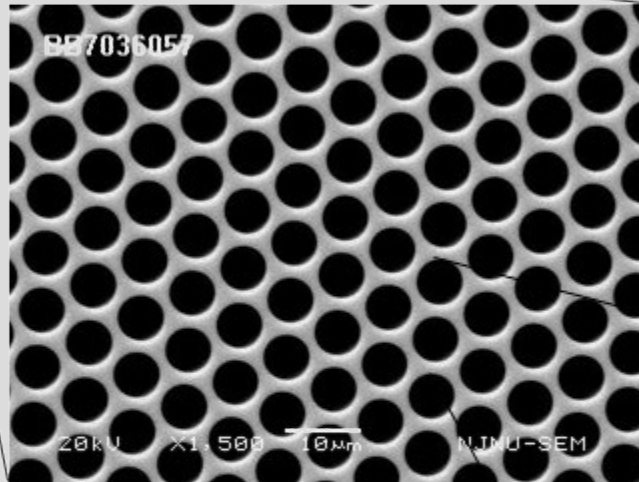
$$k = \frac{f}{\varnothing EP} \quad \text{Blendenzahl (F-Number)}$$

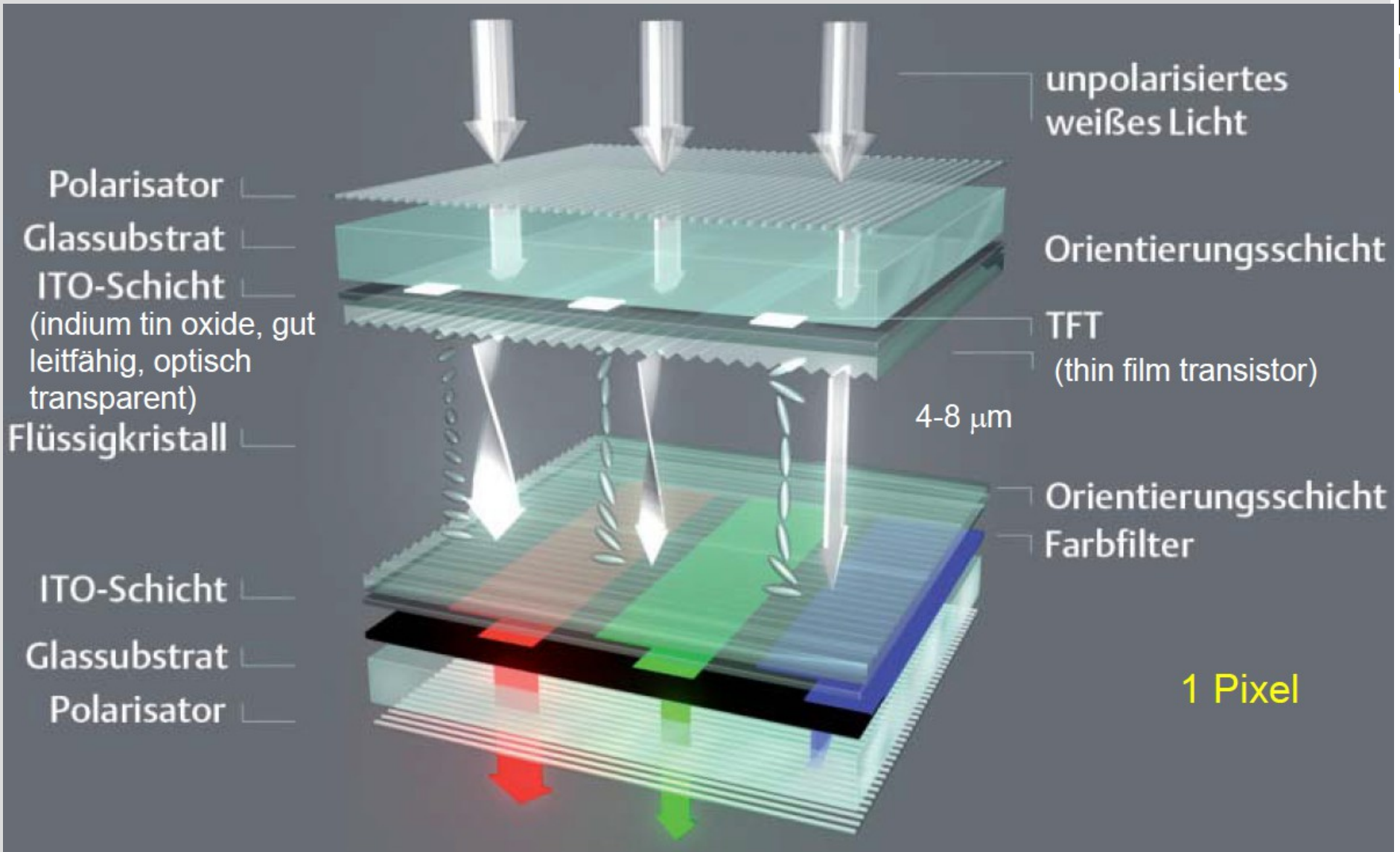




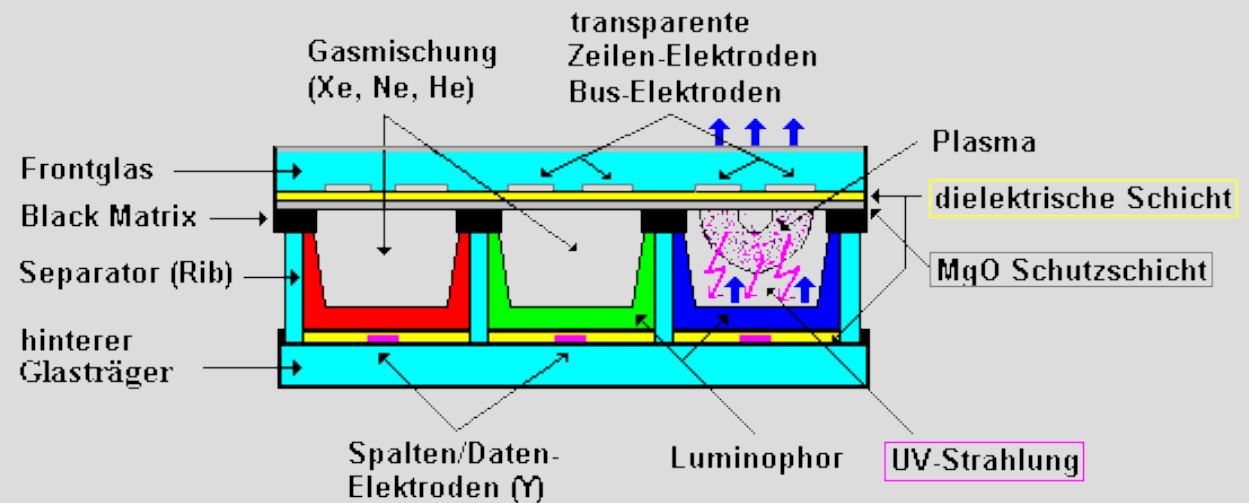
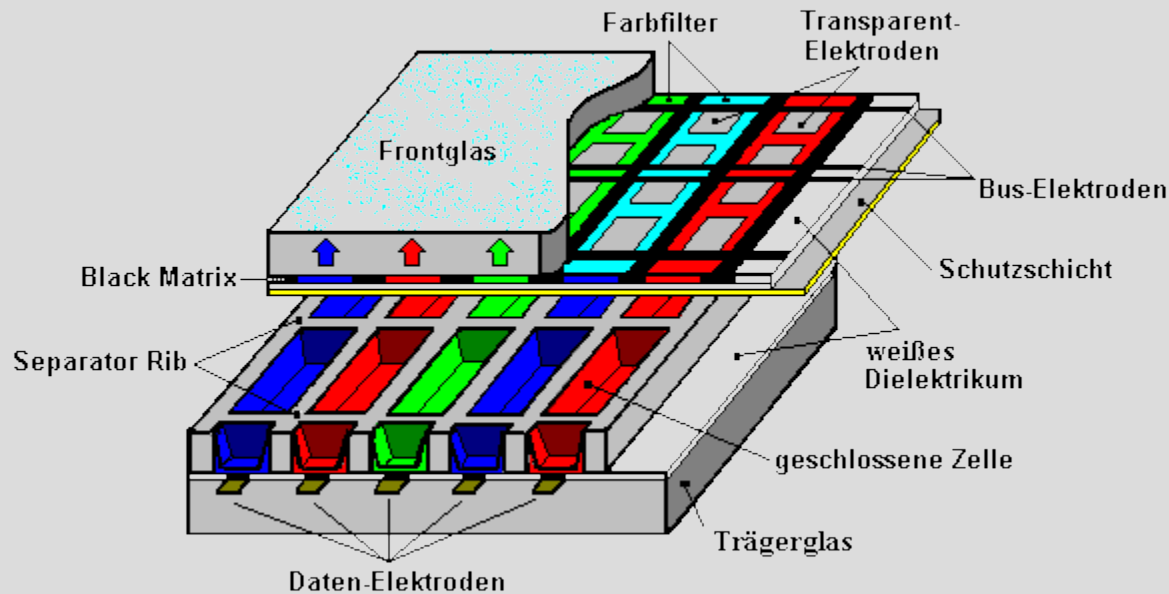


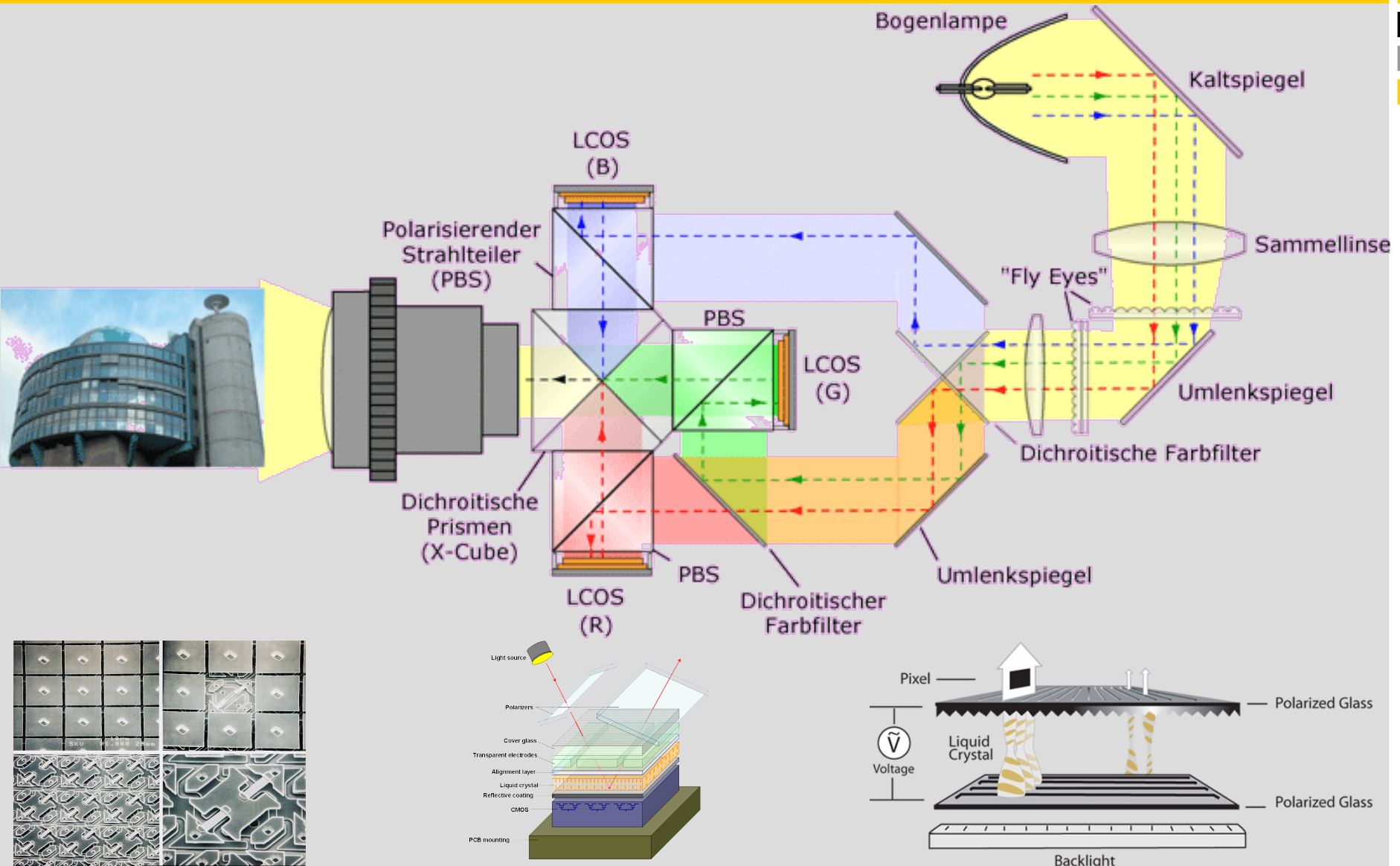
MCP-Empfänger





Plasma-Bildschirm

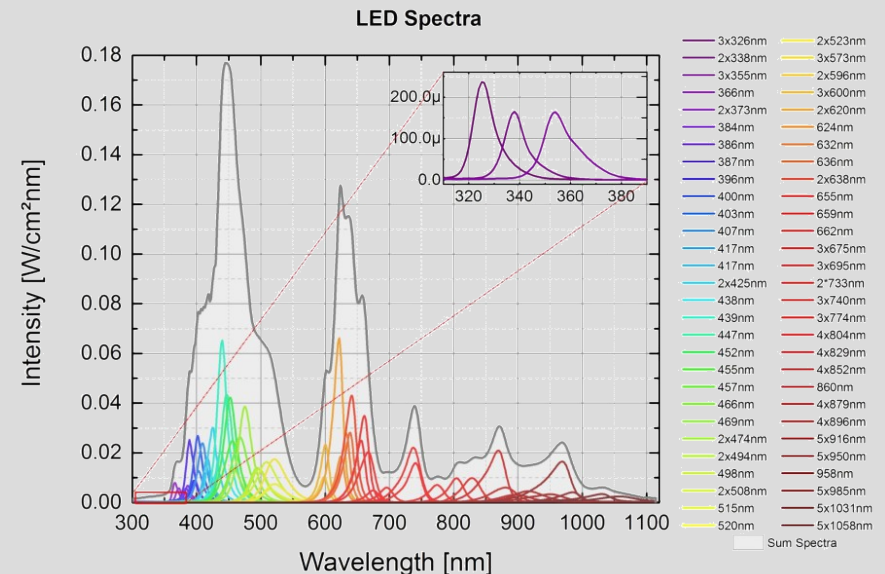
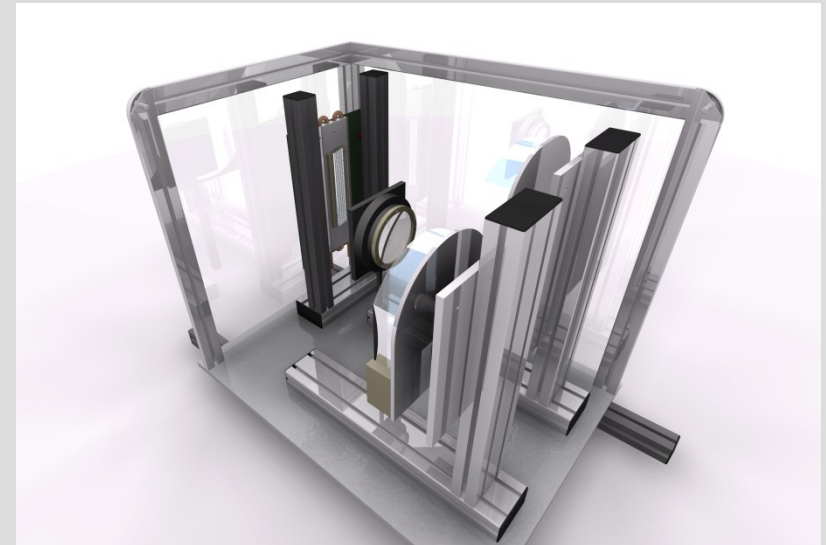




Function generator of photons

FGfPh specification

- starting approach: one LED every 5 nm
- spectral range: 325 nm to 1050 nm
(in preparation 265 to 1350 nm)
- 58 different wavelengths
(in preparation 105 wavelengths)
using 124 LED in total
- 30 W total optical power on LED module



Ende von Teil 4 und der Vorlesung

**Vielen Dank
für Ihre Aufmerksamkeit!**

www.optecbb.de

E-Mail: mahlkow@optecbb.de

Tel. : +49 30 6392-1720

OpTecBB e.V.

Rudower Chaussee 25, Haus 1

12489 Berlin

Germany

