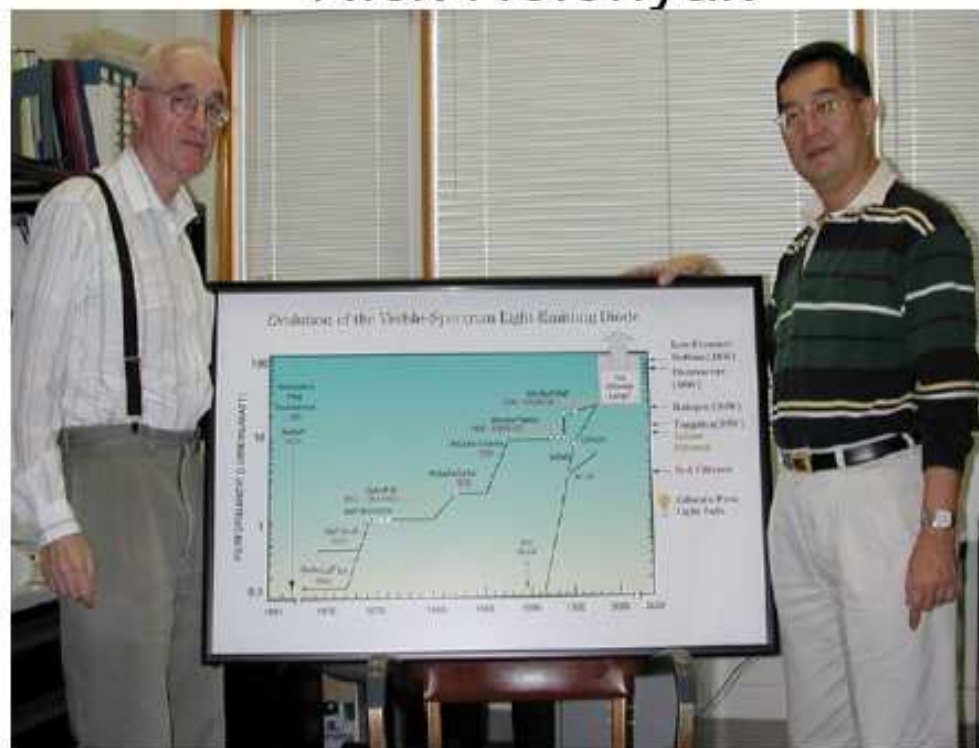


科普新知 發光二極體

LED History

- 1876. Pavel Yablochkov fabricated the first practical electric lighting device
- 1879. Thomas Alva Edison demonstrated his lamp
- 1897. Nernst developed a filament made of cerium oxidebased solid electrolyte.
- 1900. Peter Cooper Hewitt patented the mercury vapor lamp. 1903. A. Just and F. Hanaman developed tungsten filament
- 1904. C. O. Bastian and A. E. Salisbury combined the mercury vapor lamp with a low-temperature incandescent lamp
- 1904. Moor introduced discharge lamps using air
- 1907 Round reports on the first LED (SiC)
- 1910. P. Claude filled discharge lamps with inert gases
- 1938. GE and Westinghouse Electric Corporation put on the market the new colored and white fluorescent lamps.

The inventor of LEDs
– Nick Holonyak 1962



Nick Holonyak Jr., a John Bardeen Professor of Electrical and Computer Engineering and Physics at the University of Illinois at Urbana-Champaign, first semiconductor laser

**George Craford (UIUC Ph.D. 1968)
Lumileds Chief Technology Officer**

Craford began his professional career as a research physicist at Monsanto Chemical Company. He advanced to the level of Technical Director of the Electronics Division, before joining the Hewlett-Packard Company in 1979. He is currently the Chief Technology Officer at Lumileds Lighting.

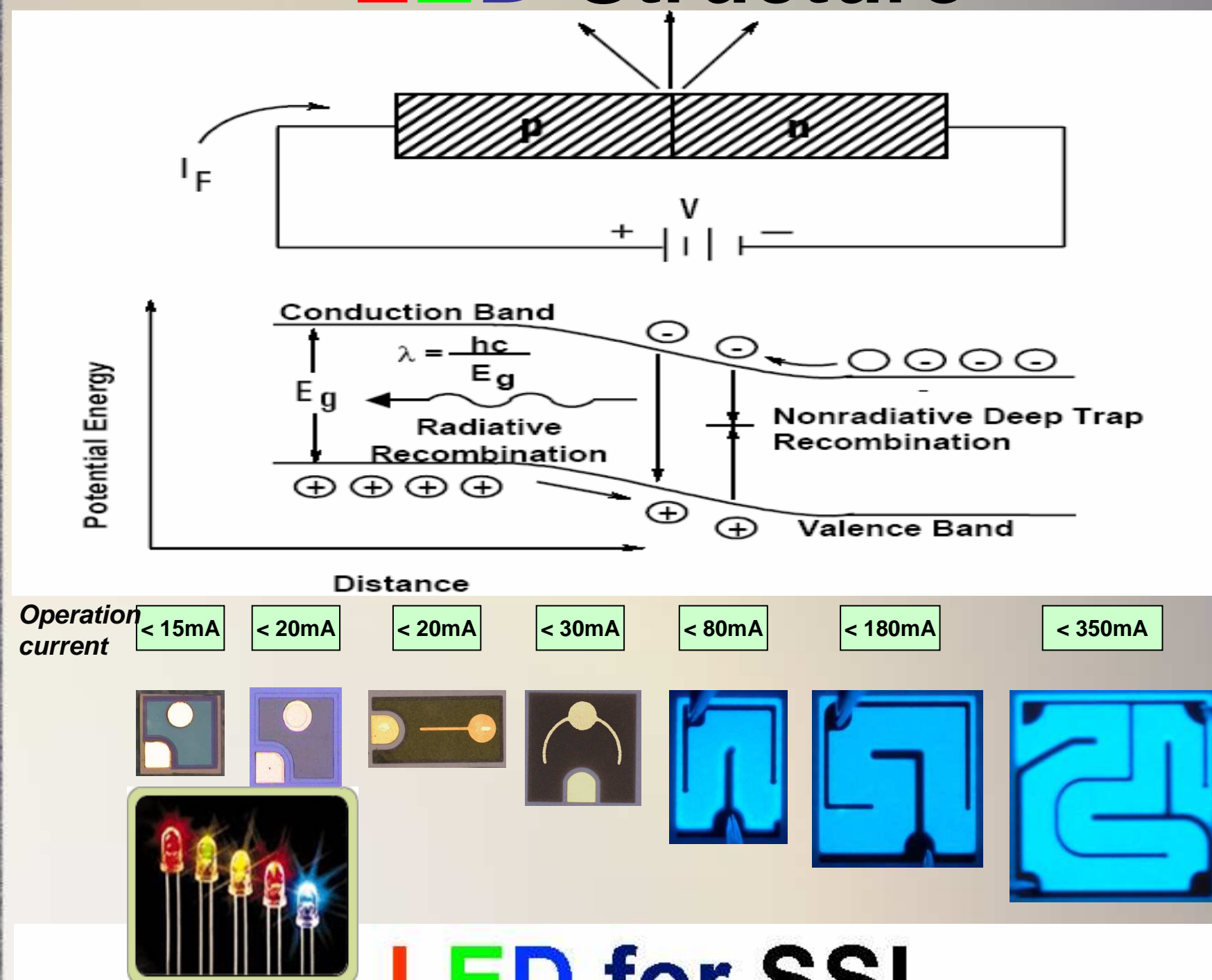


Shuji Nakamura

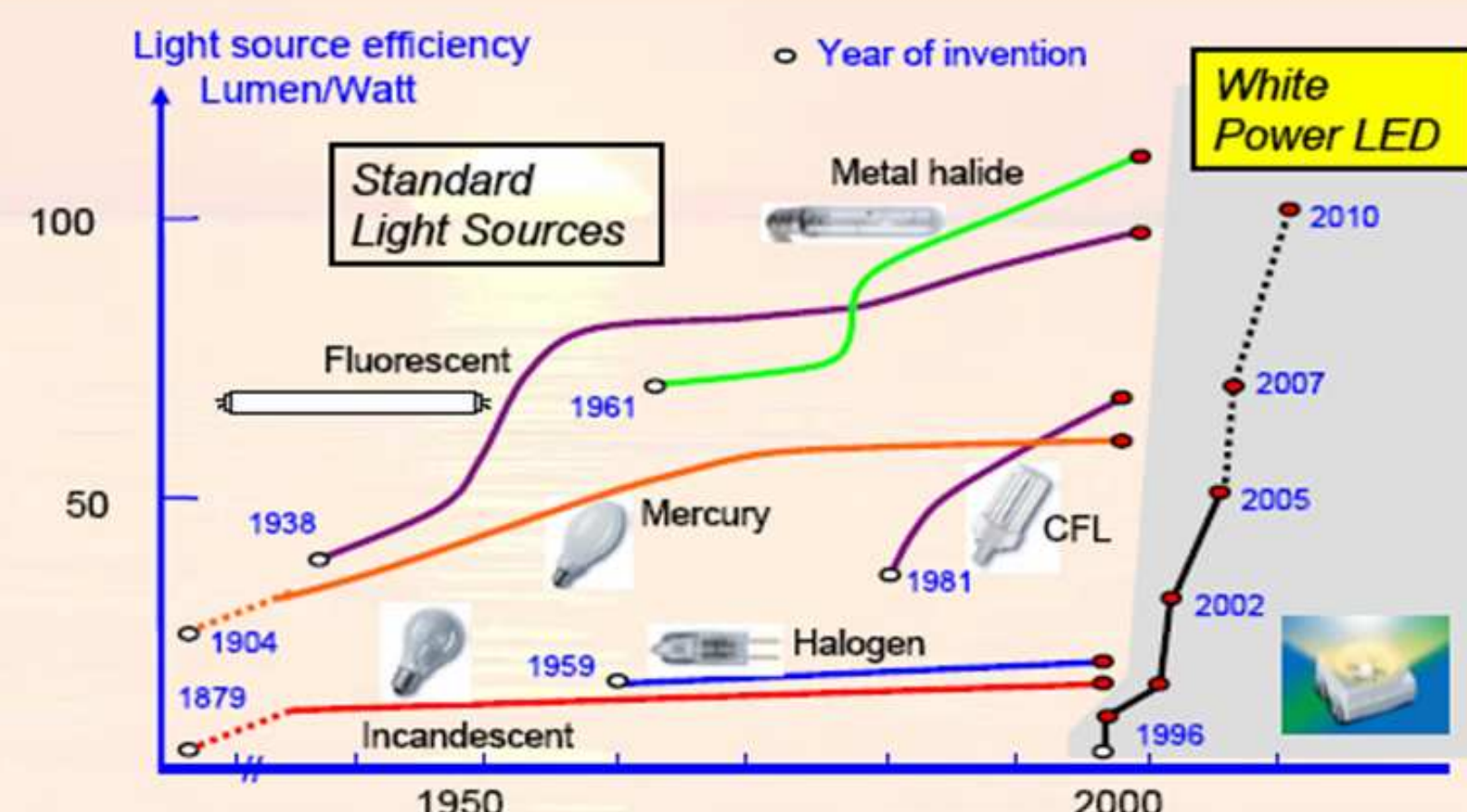
**Father of Blue LED laser
came to the UCSB Materials Department in 1999
Nichia Chemical Ind., Ltd. Chief Scientist**



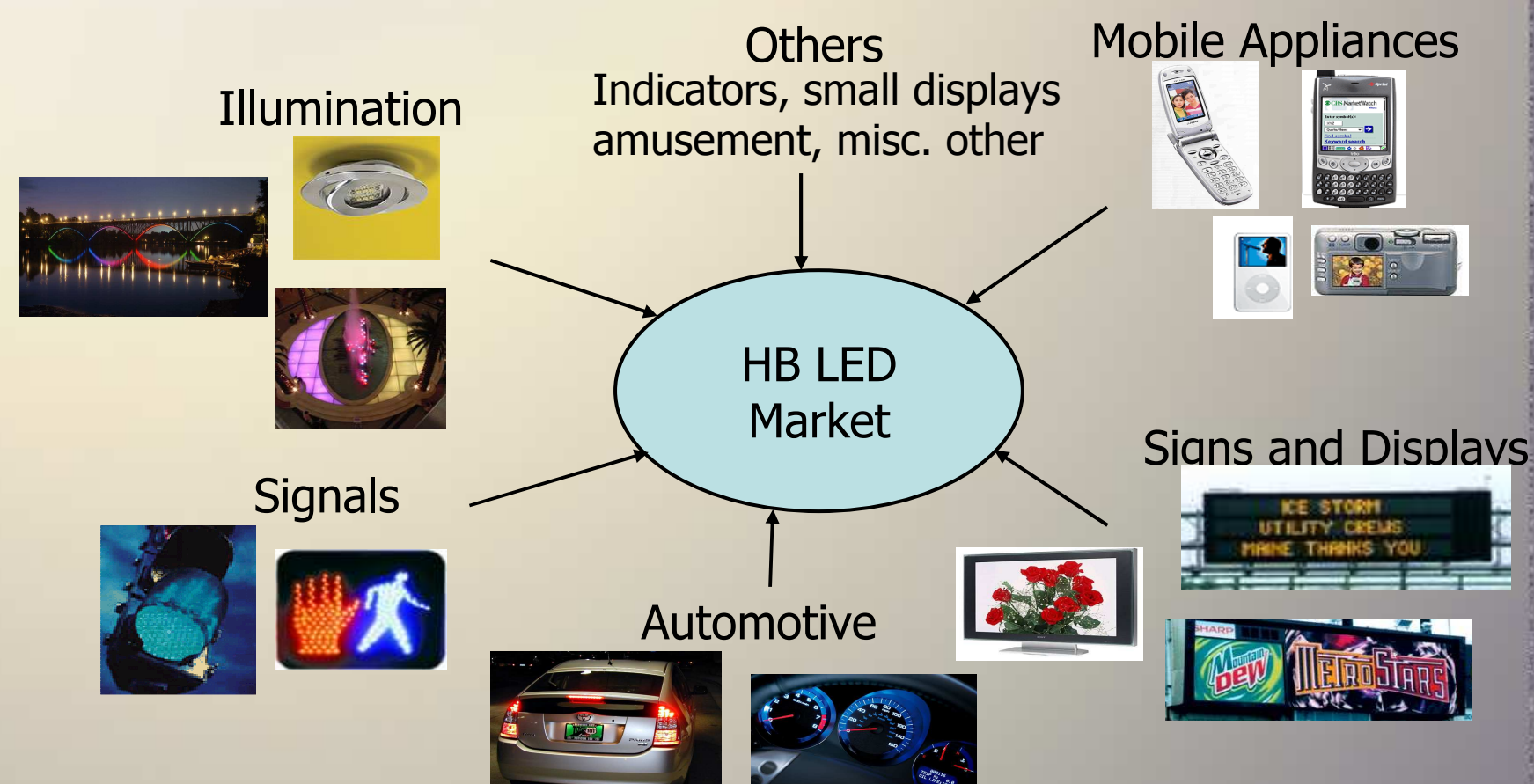
LED Structure



LED for SSL



LED for Future World



撰稿：郭浩中 製作：王超駿、林威廷、陳巍方