

Hartmut Lichtenthaler: The New King of The Chloroplast

Pyruvate + GA-3-P

1-Deoxy-D-xylulose-5-P

OH

Fosmidomycin X

OH 2-C-Methy

Isopentenyl

DC

September 12, 2015--- How he looked like--yesterday and day before, but first....?

Govindjee (gov@illinois.edu) Playing with red light (fluorescence) from plants to monitor their efficiency– an area very dear to my heart since 1960s– Hartmut's pioneering work on imaging leaves has been a great attraction to me Effects of herbicides on plants were studied wonderfuily well by Hartmut





It is best to read what Hartmut wrote himself about his research : Fifty--Five Years of Research on Photosynthesis, Chloroplasts, and Stress Physiology of Plan ts: 1958-2013. Progress in Botany 76: 3--32 (2014). We think of Hartmut when we hear of : -- the first analysis of quinones in the chloroplasts (UC Berkeley) plastoglobuli (University of Muenster) --Isoprenoid biosynthesis (citation classic) --Quantitative measurement of chlorophyyll a/b in leaves



Professor Thomas J. Bach, University of Strassborg, France..

In early 1970s, Thomas J. Bach, after 3 semesters at TU, Karlsuhe,

was ready to give up "biology" and to study only chemistry; he was frustrated with biology. But, he was saved by whom?: Our own Hartmut Lichtenthaler, who indeed had a chemical formula on the blackboard during his lecture. This was a true revelation to Bach : this is "biology" ! Bach wrote "Hartmut's lectures were indeed fascinating: filled with news on latest research in photosynthesis", and Bach became Hartmut's PhD student.



Professor Thomas J. Bach: On Hartmut's Collaborative spirit and being an educator of the highest order

Bach added "Hartmut K. Lichtenthaler has set a [high] standard in the organization of international collaboration and projects across borders at a time when the "Iron Curtain" was still existing, as editor of books and author of an impressive num ber of articles, and, amazingly, is still maintaining his deep interest in photosynthesis research and ....."



Thomas J. Bach: On Hartmut's research style

Hartmut really drove

- his group with his dynamism and "speed"; and as Bach said,
- " with his "hunger" for new data; the door t o his office was usually kept open..... He gained a special reputation for

his dynamic attitude, at the TU Karlsruhe".

### Photos from his early life, 1936-1965



#### Hartmut, in the late 1970s—1980s



## Hartmut, during 1994 and 1995



# Hartmut, 1998, 1999



Top Left: With Bob Buchanan at UC Berkeley, 1998 Bottom Right: With Laurie Bogorad, at Harvard

# Hartmut in 2000s, and now you can see him in person.. Sep. 12, 2015



#### Hartmut received a medal from the Czech Academy of Science, in 2004 Hartmut, "Herzlichen Glückwunsch" at the 2015 Award in Urbana-Champaign

