

ISSCC2013 Sweet Memory

Antiques from
the Innovative Attic

Yoshiaki Hagiwara as a presenter at the ISSCC2013 Plenary Panel.



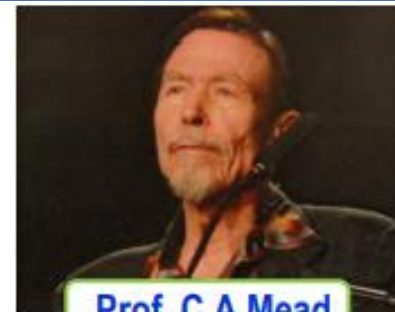
Prof. J.L. Moll



Prof. W. Kosonocky



Prof. R. Fynman



Prof. C.A. Mead

student, I did not know yet how to move that single photoelectron sitting in the base region to the outside world so that we can make use of it as a signal. I had no way yet to know whether the hotel guest has arrived and is resting in the hotel room or not. We had no way yet to ask the hotel guest to come up to the hotel lobby to meet me. I had to wait a few more years (until 1970 in my senior year in college) to find the answer. We all know now it is the CCD structure that can store and transfer one single electron. With a precharge reset set gate and a source-follower circuit, a scheme invented by Walter Kosonocky. We could finally meet our hotel guest at the hotel lobby.

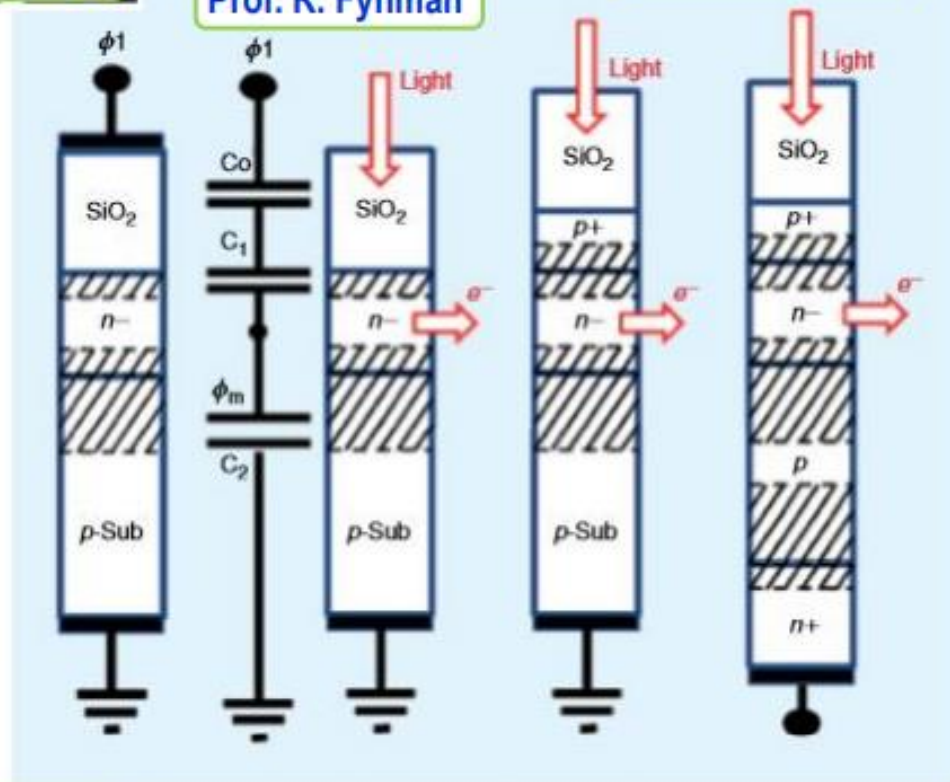


FIGURE 10: From CCD to the dynamic p-n-p-n diode capacitors.