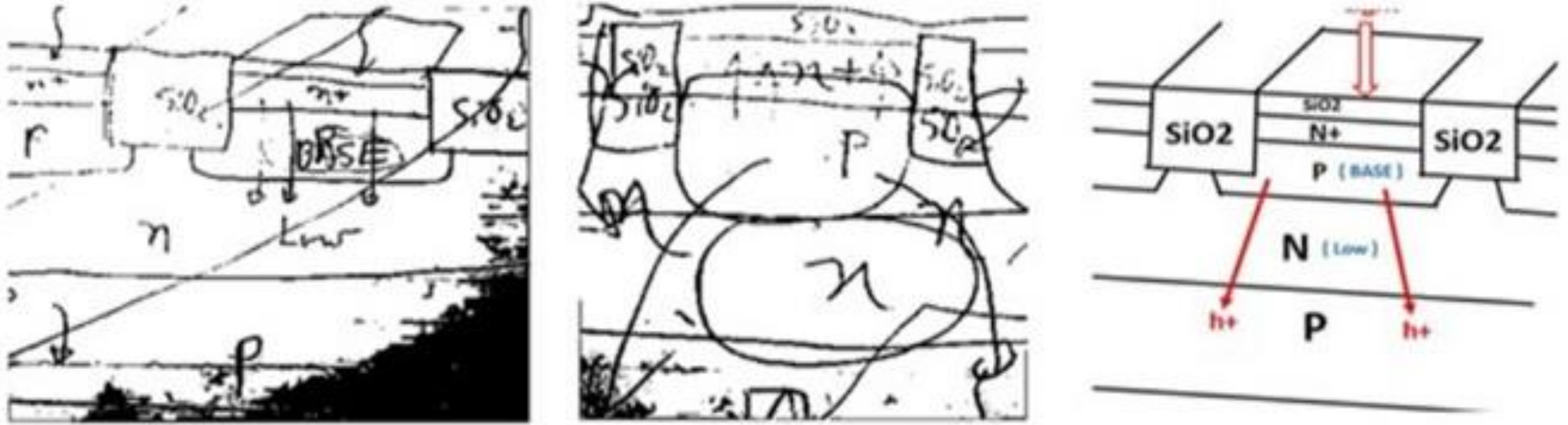


PPD with in-pixel VOD function was drawn in Hagiwara Lab Note in Feb 1975.



Hagiwara wrote the PPD patent form applied to Sony IP Office on March 5, 1975.

The surface needs be pinned and fixed to achieve the complete charge transfer mode with no image lag feature, which is a necessary condition to realize the Electric function. Any photodiode with the floating surface with some RC delay time constant cannot be used for electric shutter. See JPA1975-127646 and JPA1975-134985 (Japanese patent 1215101).