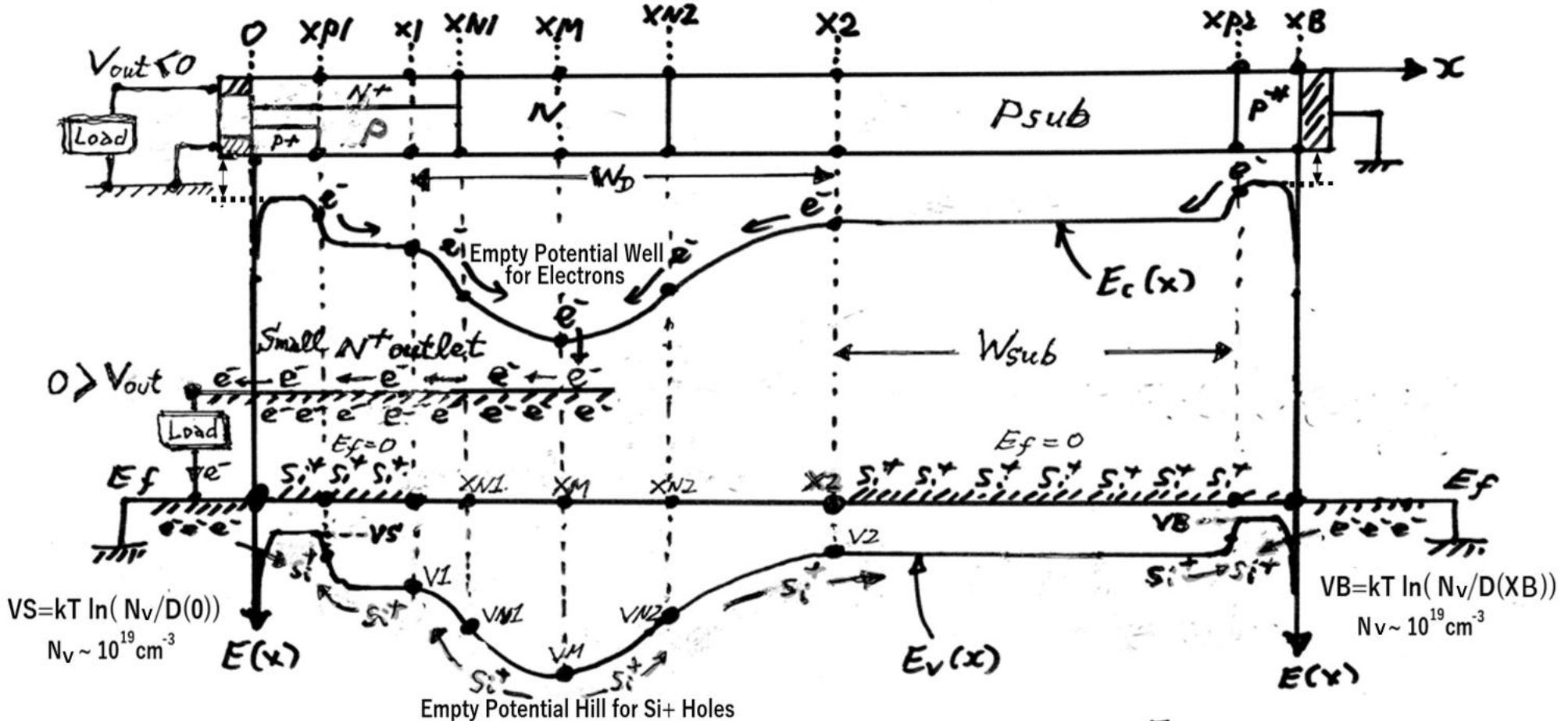


# Pinned\_Phtodiode\_type\_Solar\_Cell\_JPA\_2020\_131313\_Yoshiaki\_Hagiwara



Band Diagram of  
 Pinned Photodiode type  
 Solar Cell  
 Yoshiaki Hagiwara  
 2023. 9. 3.

$$E_g = E_v(x) - E_c(x) > 0$$

$$p(x) = p_0 \exp\left[\frac{E_f - E_v(x)}{kT}\right]$$

$$n(x) = n_0 \exp\left[\frac{E_c(x) - E_f}{kT}\right]$$

$$E_f = 0$$

$$E_c(x) = V(x)$$

$$e_{si} \frac{d^2 V(x)}{dx^2} = -f(x)$$

$$f(x) = D(x) + p(x) - n(x)$$