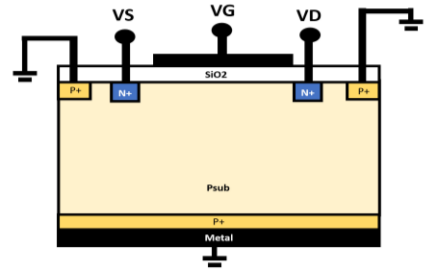


# Virtual Gate type Solar Cell Process

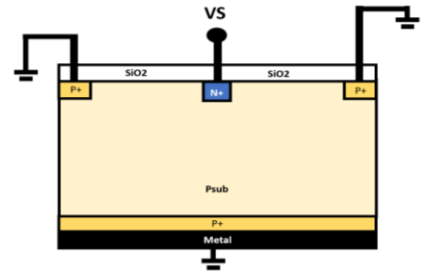
Yoshiaki Daimon Hagiwara

Jan 27, 2025

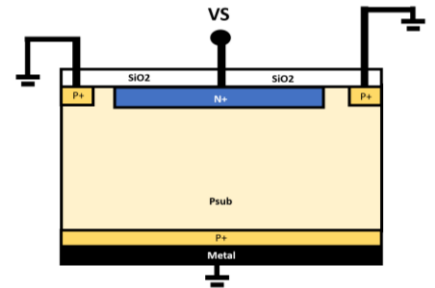
**(a) Conventional Process**  
to form the NMOS transistor  
with Four-Mask Basic Process



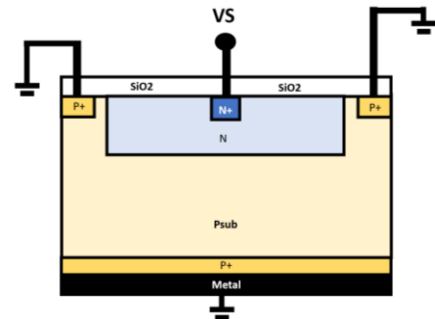
**(b) Conventional Process**  
to form the small N+ diffusion  
with Four-Mask Basic Process



**(c) Conventional Process**  
to form the large N+ diffusion  
with Four-Mask Basic Process



**(d) Floating-Surface Solar Cell**  
with One More Mask for  
High Energy Ion Implantation  
to form the deep N region



**(e) Virtual\_Gate\_type\_Solar\_Cell**  
with Another More Mask for  
Low Energy Ion Implantation  
to form the surface P+ region

