

Germanium oxide passivation

Germanium Solar cell

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Germanium (Ge) Silicon (Si)  
 Ge band gap 0.661 eV, electron mobility hole mobility가 3900 cm<sup>2</sup>V<sup>-1</sup>s<sup>-1</sup>  
 1900 cm<sup>2</sup>V<sup>-1</sup>s<sup>-1</sup> Si carrier mobility Solar  
 cell Ge oxide H<sub>2</sub>O, Acid solution, Alkali  
 solution Si oxide  
 Ge oxide Solar cell Ge oxide  
 PECVD amorphous silicon (a-si) passivation layer  
 Passivation layer carrier life time 가 Solar cell short circuit  
 current 가  
 Solar cell short circuit current 가 Ge oxide Ge Solar cell  
 passivation layer Jsc 17.89 mA/cm<sup>2</sup> 22.15 mA/cm<sup>2</sup> 가 0.8%  
 1.2% 가 Ge n-doping secondary  
 ion mass spectrometry (SIMS), Solar cell current-voltage (I-V) parameter solar  
 simulator