



Si/organic hybrid solar cells with enhanced optical and electrical properties



Meng-Lin Tsai

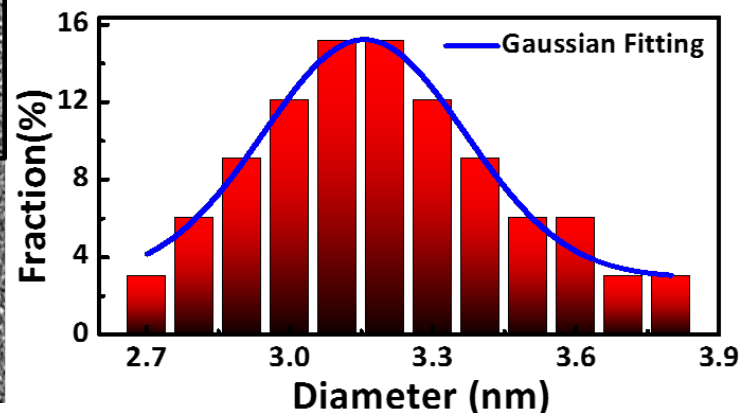
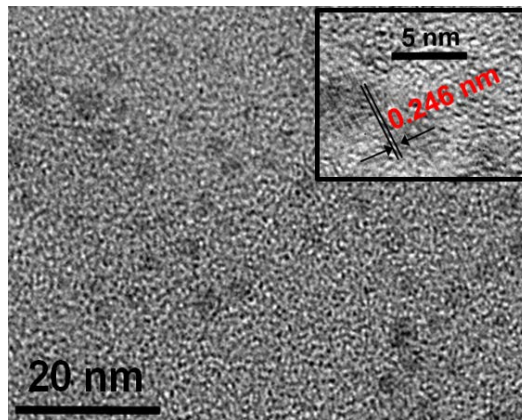
Assistant Professor

Dept. of Materials Sci. & Eng.

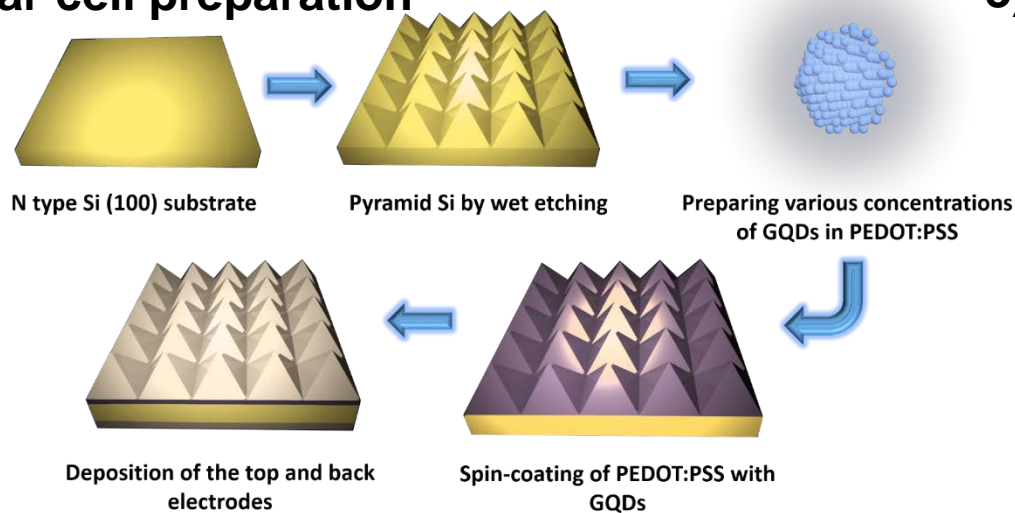
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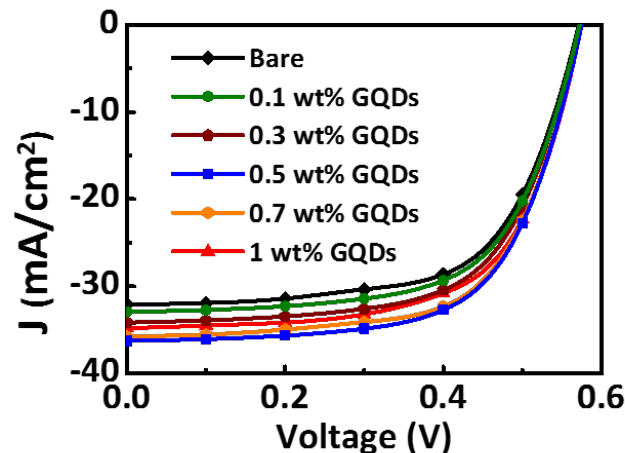
1) Characterization of graphene quantum dots (GQDs)



2) Solar cell preparation

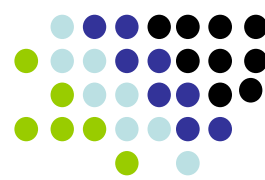


3) Device characterization





Single-atomically sharp 2D lateral heterojunction



1) 2D lateral heterostructures 2) Device fabrication

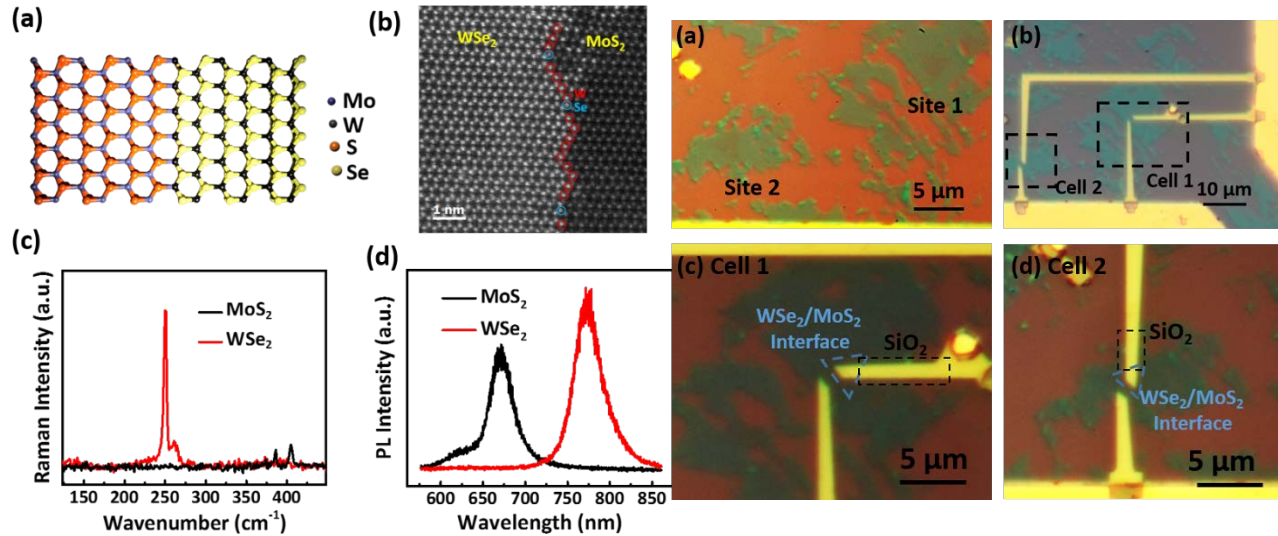
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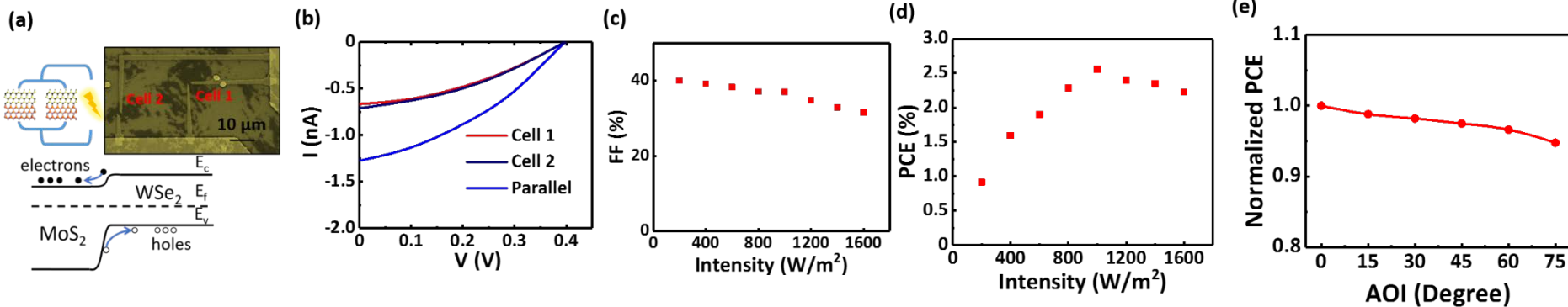
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3) Device characterization



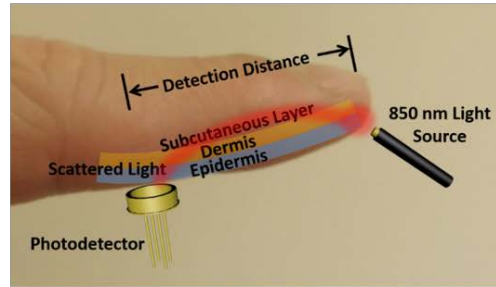


Weak light photodetection and energy generation

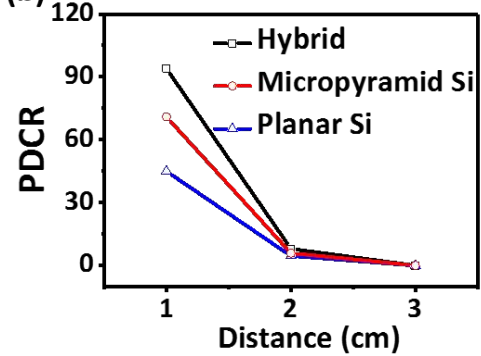


2) Device performance

(a)



(b)



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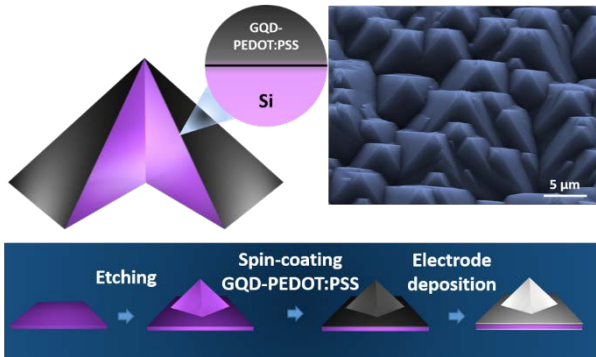
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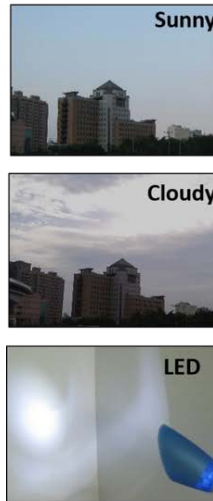
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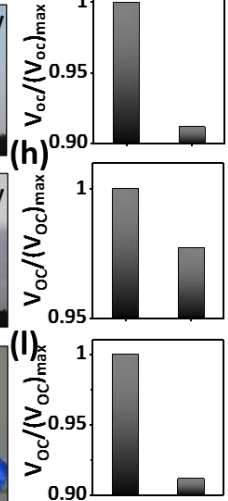
1) Device preparation



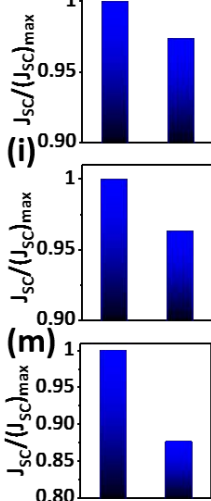
(c)



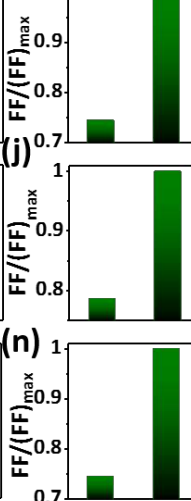
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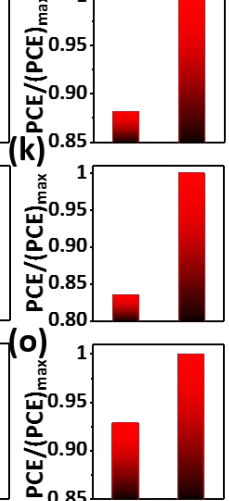
(e)



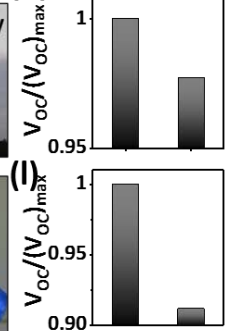
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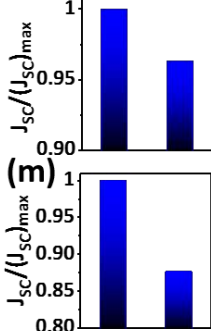
(g)



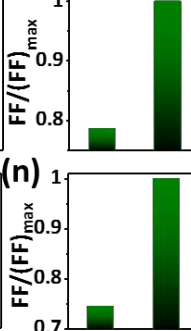
(h)



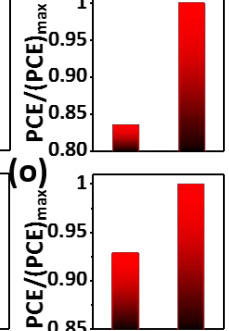
(i)



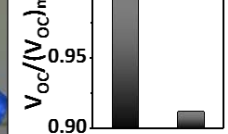
(j)



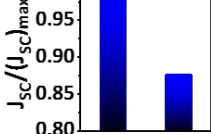
(k)



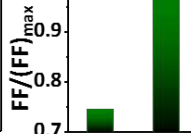
(l)



(m)



(n)



(o)

