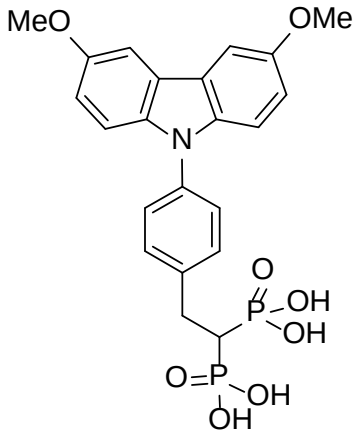
Lumtec Luminescence Technology Corp.

Self-Assembled Monolayers Materials

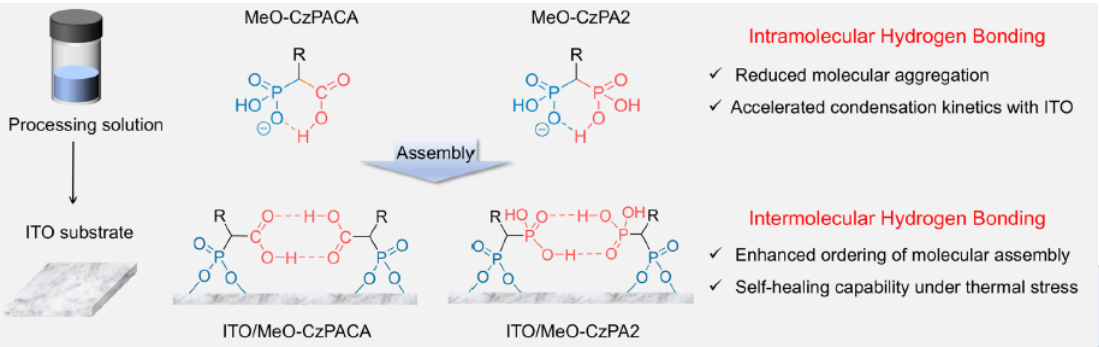
Perovskite Solar Cells

Self-Assembled Monolayers Materials

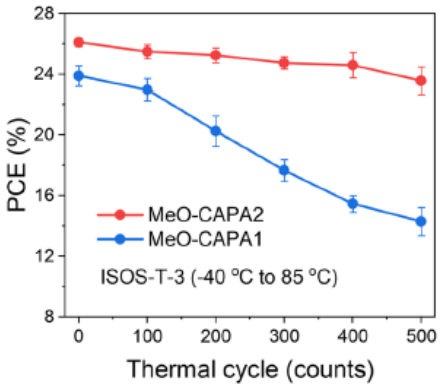
LT-S8140 MeO-CzPA2 >97%

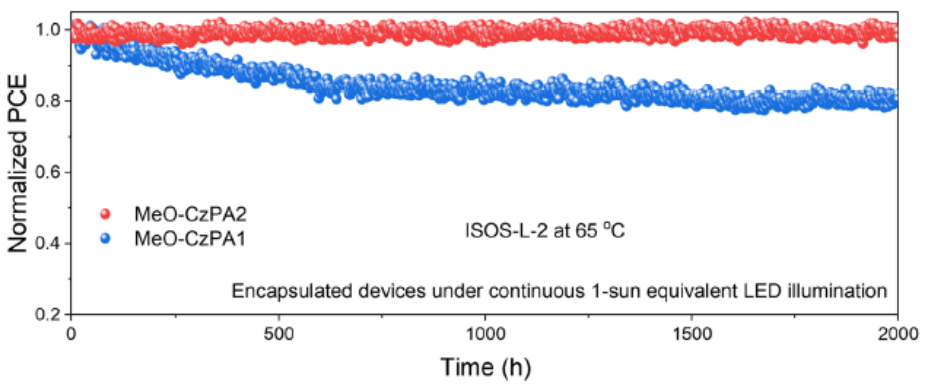


MeO-CzPA2 employs a dual phosphonic acid anchoring group design. Intramolecular hydrogen bonding enhances the acidity of the anchoring groups and strengthens their adsorption onto the ITO surface, while the second, non-coordinated phosphonic acid group forms intermolecular hydrogen bonds. This dual hydrogen-bonding strategy promotes a denser and more uniform self-assembled monolayer, strengthens interfacial binding, and suppresses molecular aggregation in solution. As a result, the device achieves a high power conversion efficiency of 26.9% while exhibiting excellent thermal stability and self-healing capability.



DOI:10.1021/jacs.6c02024





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Lumtec

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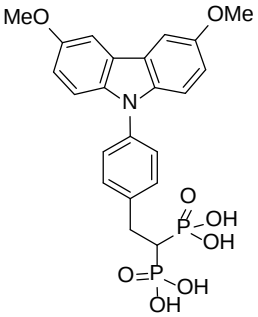

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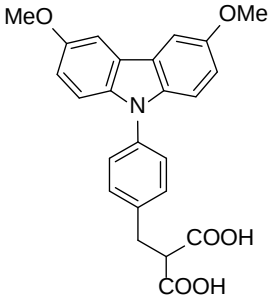

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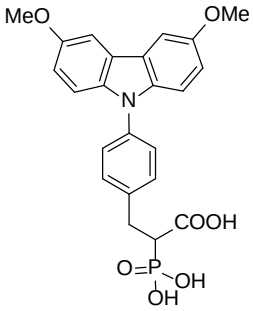

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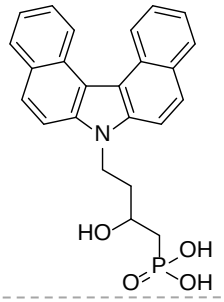

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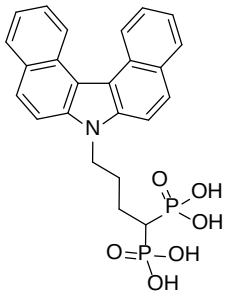

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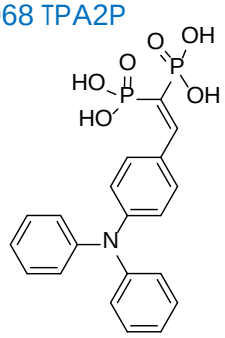

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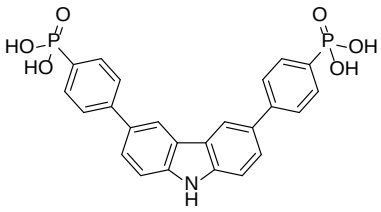

LT-S8141 S1
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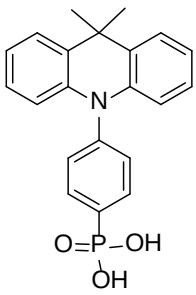

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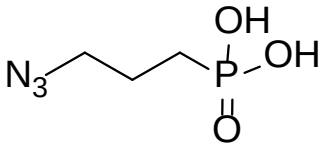

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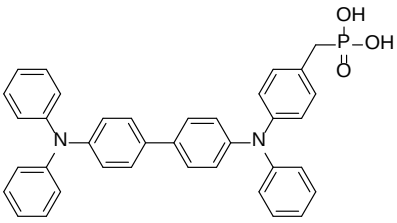
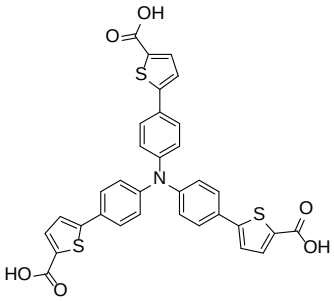
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