

(OPV-PCE) 17.87% Achieved, 17.29% Certified



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Organic Nano Electronic (ONE=I) Materials for these who understand quality

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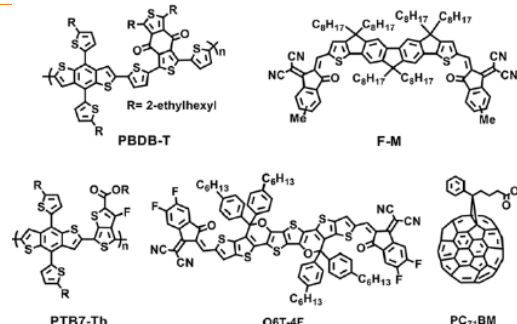
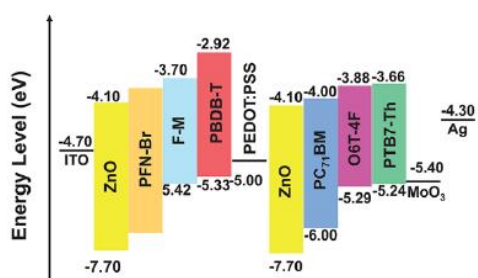
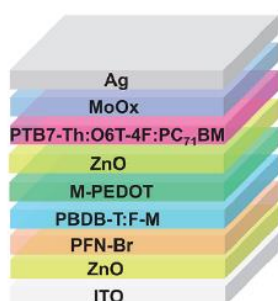
REPORTS

Organic and solution-processed tandem solar cells with 17.3% efficiency

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(CPVT) with a measured PCE value of 17.29% (fig. S9). It is worthy to note that the optimized tandem cell performance is well reproduced with a standard deviation (STD) of 0.29% of PCEs based on >50 devices with the average value 16.89%, which is close to the best result (17.36%) (fig. S10).

keep over 15% when the light intensity varies from 4.97 to 112.63 mW/cm², and a PCE of 17.87% has been achieved at the light intensity of 25.99 mW/cm². In addition, the tandem cells show good stability behavior, with only a minor performance degradation of 4% after continuing 166 days-testing (fig. S13).



Reproducibility matters, and now all materials are available from 1-Material Inc

Material listed	Other names / CAS No	1M No.	Note
PTB7-Th	PCE10, PCE-10 / 1469791-66-9	OS0100	Mw >100K
PC ₇₁ BM	PC70BM / 609771-63-3	OS0633 (OS0663)	99+%
OC6T-4F	COi8DFIC / 2184266-44-0	PCE146, NFA146	98+%
PEDOT:PSS	HTL solar / 1559090-83-8	HT0838	also EL5105(scrree-print)
F-M	FTIC-C8C8M / 2239303-91-2	NFA088	98+%
PBDB-T	PCE-12 / 145929-80-4	OS0804	Mw >80K
PFN-Br	PFN-P2/889672-99-5	OS0995	Mw>30K
ZnO	ZnO Nano-Ink /1314-13-2	NK4132	40nm APS, 20% in H ₂ O

Congratulation on Dr. Yongsheng Chen's collaboration team, not just another world record efficiency, but will hold for years. (Courtesy of comment from Dr. Christophe Brabec in C&EN, AUGUST 9, 2018).

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