

## 1 Supporting information

Bandgap (eV)	Encaps. (yes/no)	RH (%)	Temp. (°C)	Cond. (MPP/OC)	Active area (cm <sup>2</sup> )	Masked? (yes/no)	T80 (h)	PCE@RT (%)	Author	Year	Ref.
1.62	yes	–	90	MPP	0.0625	yes	24467	24.58	Li <i>et al.</i>	2025	[1]
1.65	yes	–	55	OC	0.08	–	4000	23.20	Yang <i>et al.</i>	2025	[2]
1.60	yes	60%	85	OC	0.25	yes	6400	22.60	Lin <i>et al.</i>	2024	[3]
1.66	no	N <sub>2</sub> atm.	65	MPP	0.0737	yes	994	24.53	Wang <i>et al.</i>	2024	[4]
1.60	no	N <sub>2</sub> atm.	85	MPP	0.25	yes	5000	25.10	Wang <i>et al.</i>	2024	[5]
1.83	no	N <sub>2</sub> atm.	50	MPP	0.0628	yes	2222	18.96	Zhang <i>et al.</i>	2024	[6]
1.63	no	N <sub>2</sub> atm.	85	MPP	0.10	yes	765	21.10	Ren <i>et al.</i>	2024	[7]
1.65	yes	–	65	MPP	1.00	yes	8521	23.48	Li <i>et al.</i>	2023	[8]
1.67	no	N <sub>2</sub> atm.	55	MPP	0.056	yes	1866	22.28	Hang <i>et al.</i>	2023	[9]
1.72	yes	50%	85	MPP	0.16	–	5333	17.40	Zhao <i>et al.</i>	2022	[10]
1.76	yes	50%	85	OC	0.0919	yes	490	16.70	McMeekin <i>et al.</i>	2022	[11]
1.75	no	N <sub>2</sub> atm.	65	MPP	0.112	yes	4400	20.00	Jiang <i>et al.</i>	2022	[12]
1.66	yes	50%	85	OC	0.0919	yes	4800	20.10	Lin <i>et al.</i>	2020	[13]
1.60	no	N <sub>2</sub> atm.	85	MPP	0.104	yes	2500	22.02	Wu <i>et al.</i>	2020	[14]
1.67	no	N <sub>2</sub> atm.	65	MPP	0.06	yes	5000	20.42	Xu <i>et al.</i>	2020	[15]
1.60	yes	60%	65	MPP	–	–	7500	21.20	Yang <i>et al.</i>	2019	[16]
1.60	yes	45%	75	OC	0.0919	yes	1440	18.70	Bai <i>et al.</i>	2019	[17]

Table S 1: Summary of stability tests for wide-bandgap perovskite solar cells. N<sub>2</sub> atm. = nitrogen atmosphere; PCE@RT = power conversion efficiency at room temperature. *Cond.* refers to the measurement conditions used for stability testing; MPP = maximum power point tracking; OC = open circuit. When the actual active area used for stability testing was not explicitly reported, the masked area used for efficiency measurements is shown in the "Active area" column.

## References

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