

1. Record Nr.	UNINA9910683396303321
Autore	Ternes Simon
Titolo	In Situ Characterization and Modelling of Drying Dynamics for Scalable Printing of Hybrid Perovskite Photovoltaics / / Simon Ternes
Pubbl/distr/stampa	Karlsruhe : , : KIT Scientific Publishing, , 2023
Descrizione fisica	1 online resource (xi, 273 pages) : illustrations
Collana	Schriften des Instituts für Mikrostrukturtechnik am Karlsruher Institut für Technologie
Disciplina	621.31244
Soggetti	Photovoltaic power generation Hybrid perovskites
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Hybrid perovskite photovoltaics could play a vital role in future's renewable energy production. However, there are still severe challenges when scaling the technology. In this work, perovskite solution films drying in laminar and slot-jet air flows are investigated extensively by optical in situ characterization. The main results are a quantitative model of perovskite drying dynamics and a novel in situ imaging technique - yielding valuable predictions for large-scale perovskite fabrication.