

1. Record Nr.	UNINA9910347056003321
Autore	Rauch Tobias
Titolo	Spectral Enhancement of Organic Photodetectors
Pubbl/distr/stampa	KIT Scientific Publishing, 2014
ISBN	1000037753
Descrizione fisica	1 online resource (VIII, 224 p. p.)
Soggetti	Technology: general issues
Lingua di pubblicazione	Tedesco
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Solution-processed photodiodes with infrared sensitivities at wavelengths beyond the bandgap of silicon would be a significant advance towards cost-effective imaging. Colloidal quantum dots are highly suitable as infrared absorbers for photodetection. The concept of organic bulk heterojunctions sensitized with PbS nanocrystalline was proved with efficient near-infrared detection up to 1.8 mm for NIR imaging on active matrix TFT backplanes and demonstrated x-ray sensitivity.