Record Nr. UNINA9910347056003321 Rauch Tobias Autore Titolo Spectral Enhancement of Organic Photodetectors Pubbl/distr/stampa KIT Scientific Publishing, 2014 1000037753 **ISBN** Descrizione fisica 1 electronic resource (VIII, 224 p. p.) 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.