

Novel poly-pyridyl ruthenium complexes with bis- and tris-tetrazolate mono-dentate ligands for dye sensitized solar cells (Article)

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Abstract

We report on a new family of ruthenium poly-pyridyl complexes that bears bis- and tris-tetrazolate mono-dentate ligands along with their spectroscopical, electrochemical, and theoretical characterization. Dye-sensitized solar cells with these complexes show good conversion efficiencies with comparable open circuit voltages to that of N719 without the use of any additives, due to their retarded electron-recombination processes. © 2014 The Partner Organisations.