

Enhancing the light harvesting properties of  
dye-sensitized solar cells by D- $\pi$ -A organic dye

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Despite of promising aspects of dye-sensitized solar cells (DSSC) in future technology for renewable energy resources, several problems limit their realization in commercial applications. One of the problems arises from the use of ruthenium-based complexes as sensitizer in DSSC because of their tricky purification steps and the scarcity of ruthenium metal. Furthermore, their low absorption characteristics at longer wavelength which is a major part of sunlight often limits the breakthrough of the performance of DSSC. Such breakthrough could be realized by the introduction of organic framework in DSSC because of their general high extinction coefficient and tunable optical and electrochemical properties. We report herein novel  $\pi$ -bridged organic sensitizer for efficient DSSC.