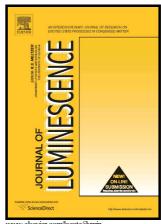
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Aggregation induced emission enhancement of pyrene-appended Schiff base

luminophore and its photovoltaic effect

Uttam Panda^a, Suman Roy^a, Debashis Mallick^{a†}, Pradip Dalapati^b, Subir Biswas^c, Nabin Baran

Manik^b, Arindam Bhattacharyya^c and Chittaranjan Sinha^a*

^aDepartment of Chemistry; ^bCondensed Matter Physics Research Center, Department of Physics,

Jadavpur University, Kolkata – 700032, India; ^cImmunology Lab, Department of Zoology,

University of Calcutta, Kolkata - 700019, India

Abstract: Pyrene appended Schiff base, 1,3-bis-((E)-pyrene-1-ylmethyleneamino)propan-2-ol

(HL), a fluorophore, shows aggregation induced emission enhancement upon addition of water in

DMF (4:1, v/v) solution; the quantum yield (Φ) is increased 0.034 to 0.450. Under illumination

of solar radiation HL (10⁻³ M) impregnated photovoltaic cell generates 4.4 mA/6.29 V

electricity. DFT and TD-DFT computation of optimized geometry of HL has explained the

photophysical properties.

Keywords: Pyrene Schiff base; aggregation induced emission; high quantum yield; photovoltaic

effect; DFT and TD-DFT computation

Address for correspondence: c_r_sinha@yahoo.com (C. Sinha), fax-+91-2414-6584

[†]Present Address: Mrinalini Datta Mahavidyalaya, Birati, Kolkata 700 051

1

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