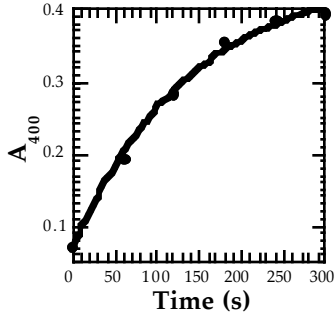


Supporting Information:

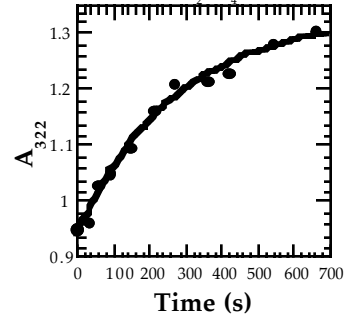
4,5-Dimethoxy-2-nitrophenylglycine hydrochloride (**1**). To 3,4-dimethoxyphenylglycine (27 mg, 110  $\mu$ mol) in glacial acetic acid (1.0 mL) was added concentrated nitric acid dropwise (0.8 mL, 13 mmol) at 0° C. The reaction

was stirred 0.5 h, diluted with cold water (10 mL) and the product was extracted into CH<sub>2</sub>Cl<sub>2</sub>. Pure **1** (20 mg, 62%) was obtained as a yellow solid on removal of the solvent *in vacuo*.: <sup>1</sup>H NMR (CDCl<sub>3</sub>)  $\delta$  7.73 (s, 1H), 7.24 (s, 1H), 6.97 (s, 1H), 4.03 (s, 3H), 4.02 (s, 3H).

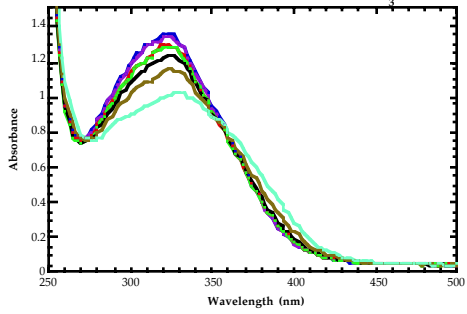
Photodecomposition of o-NDMPG in  $\text{CHCl}_3$



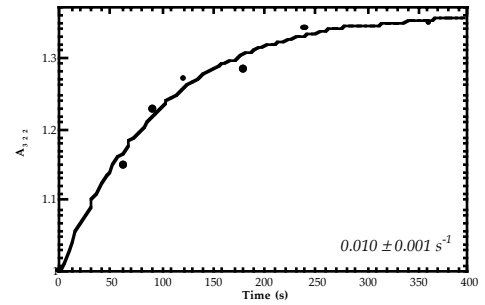
Photodecomposition of o-NDMPG in 20mM  $\text{KH}_2\text{PO}_4$  (pH 1)



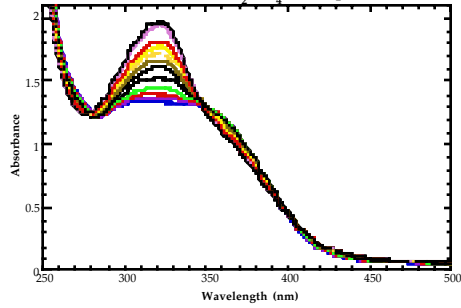
Photodecomposition of o-NDMPG in  $\text{CH}_3\text{OH}/\text{HCl}$



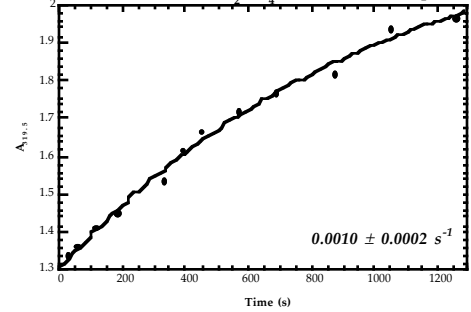
Photodecomposition of o-NDMPG in Methanol



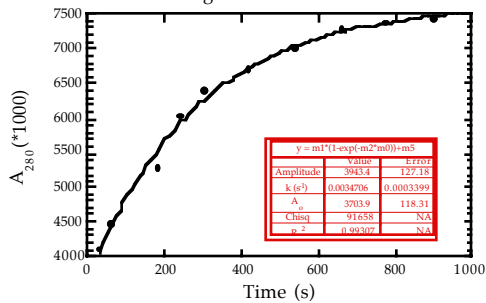
Photodecomposition of o-NDMPG in 20 mM  $\text{KH}_2\text{PO}_4/\text{HCl}$  (pH 2)



Photodecomposition of o-NDMPG in 3.0 mL 20 mM  $\text{KH}_2\text{PO}_4$  + 50 uL 6 N  $\text{HCl}$  (pH 2)



Photocleavage of PLM-Masked Inhibitor



Deprotection of 1•I, Monitored by Displacement of Dansylamide from CA

