Electronic Supplementary Material (ESI) for Nanoscale.

Supporting Information

Decorating Graphene Nanosheets with Electron Accepting Pyridyl Phthalocyanines

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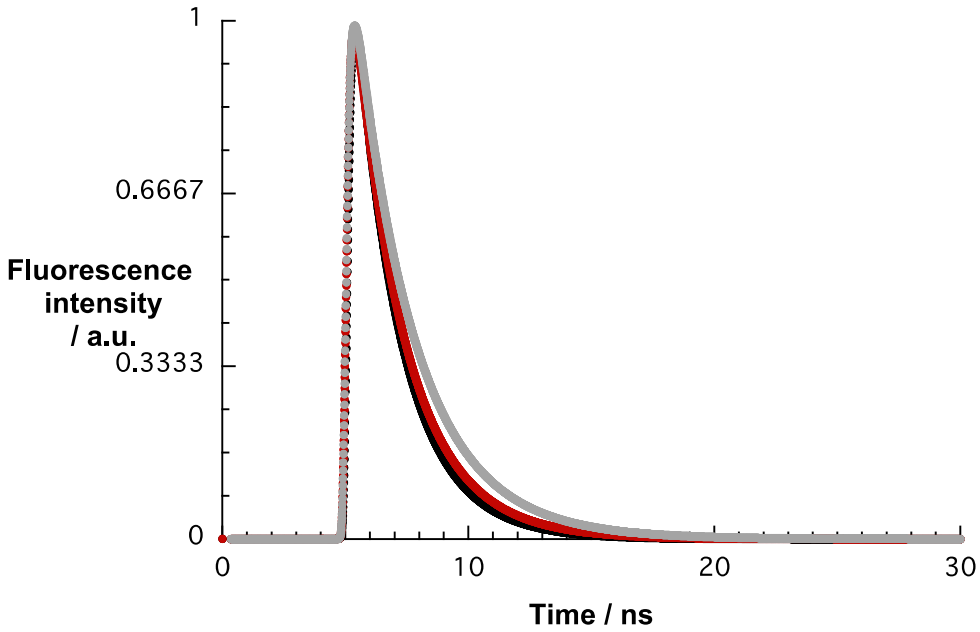
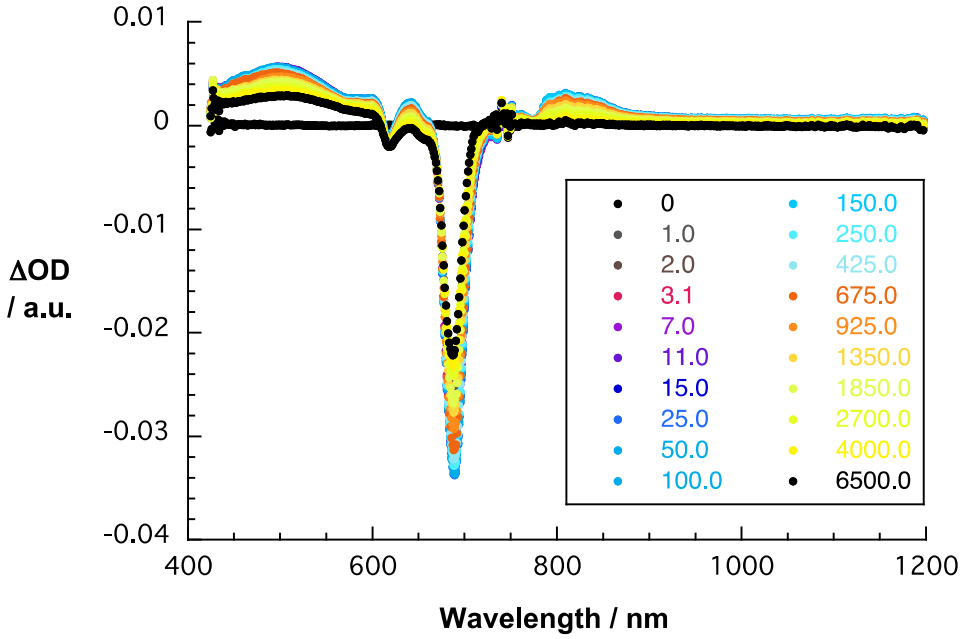


Figure S1: Emission time profiles of **1** (grey spectrum), **2** (red spectrum), and **3** (black spectrum) in DMF following 403 nm excitation wavelength.



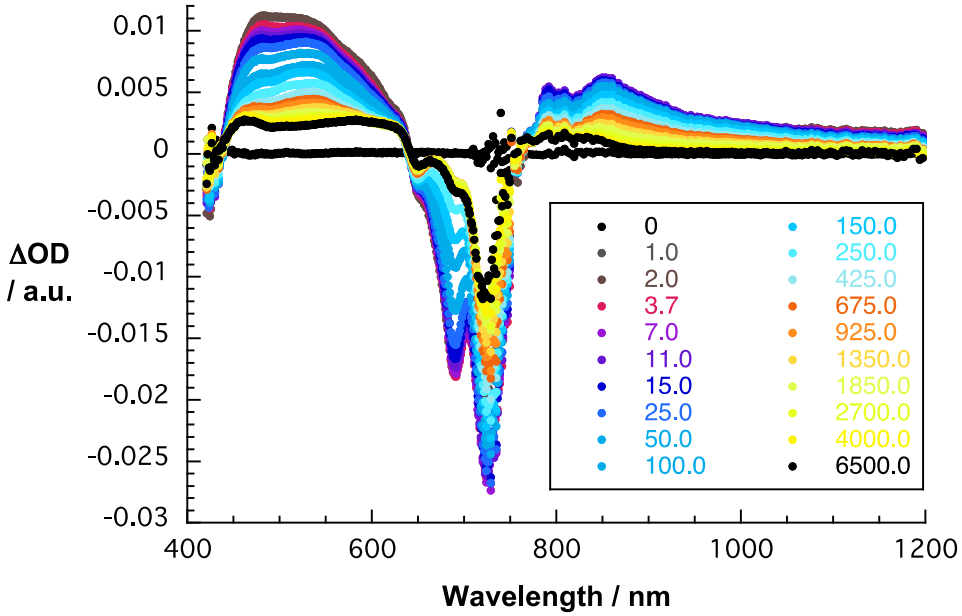


Figure S2: Upper part – differential absorption spectra (visible and near infrared) obtained upon femtosecond pump probe experiments (387 nm) of **1** in DMF with addition of pyridine to ensure monomeric phthalocyanines with time delays between 0 and 6500.0 ps at room temperature – for time delays see figure legend. Lower part – differential absorption spectra (visible and near infrared)

obtained upon femtosecond pump probe experiments (387 nm) of **3** in DMF with addition of pyridine to ensure monomeric phthalocyanines with time delays between 0 and 6500.0 ps at room temperature – for time delays see figure legend.

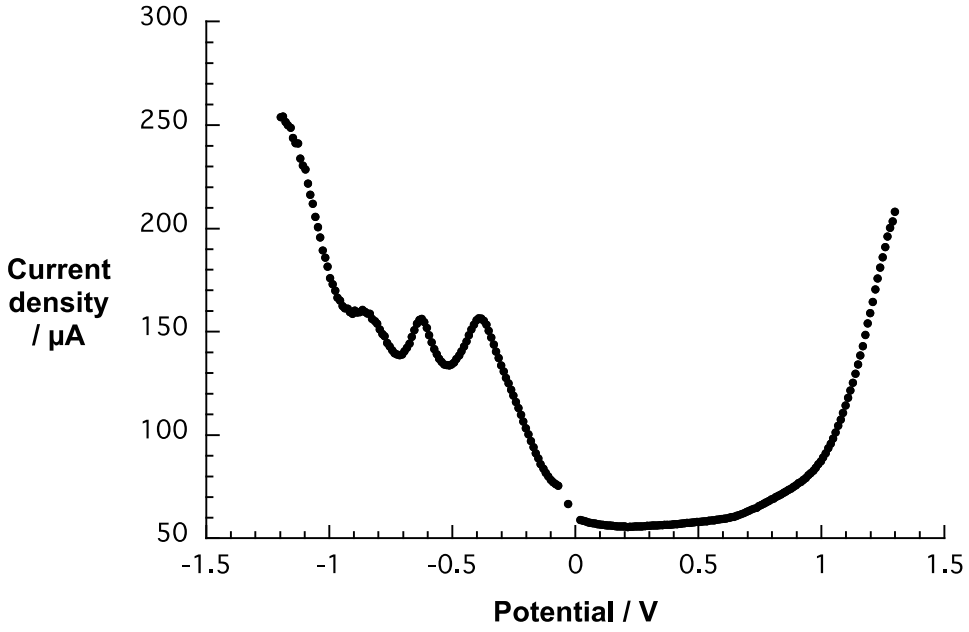


Figure S3: Differential pulse voltammetry of **2** in DMF with 0.1 M $tBAPF_6$ as electrolyte. The potentials are given *vs* Ag-wire as quasi reference electrode.

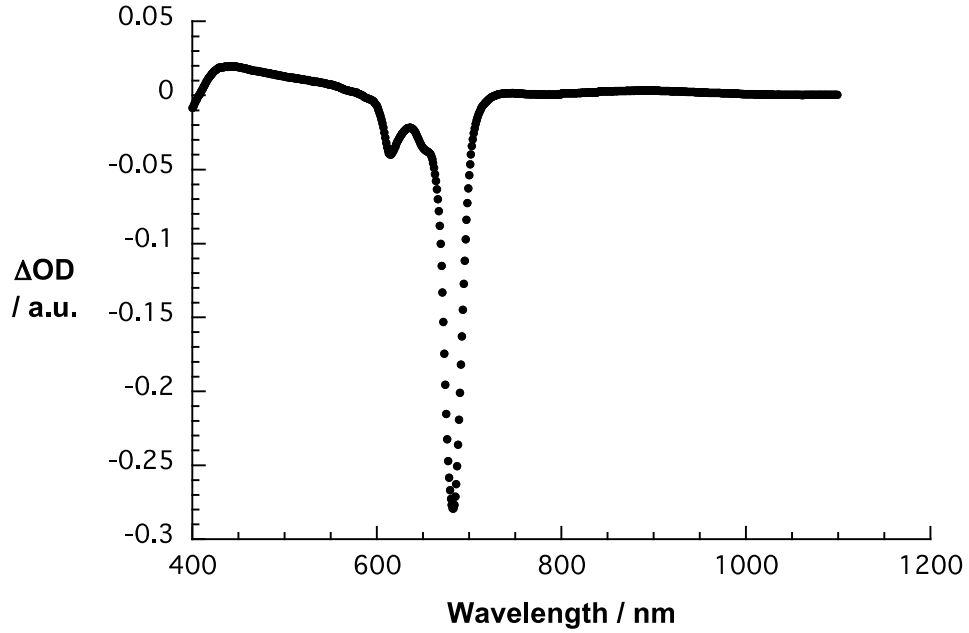


Figure S4: Differential absorption spectrum (visible and near infrared) obtained upon spectroelectrochemical one electron reduction of **1** in DMF with a voltage of -0.6 V *vs* Ag-wire.

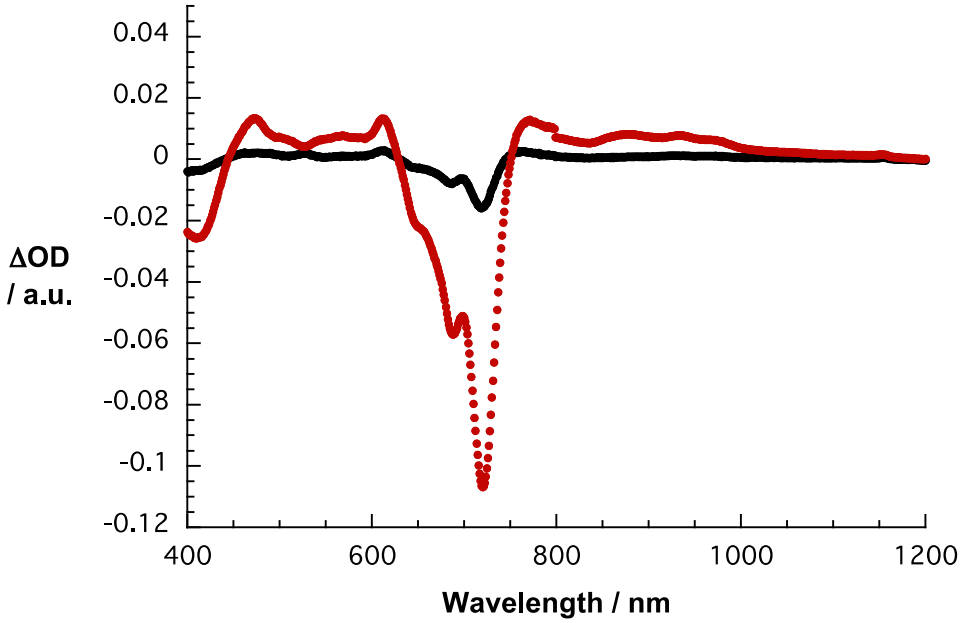


Figure S5: Differential absorption spectra (visible and near infrared) obtained upon spectroelectrochemical one electron (black spectrum) and two electron (red spectrum) reductions of **3** in DMF with voltages of -0.2 and -0.6 V *vs* Ag-wire, respectively.

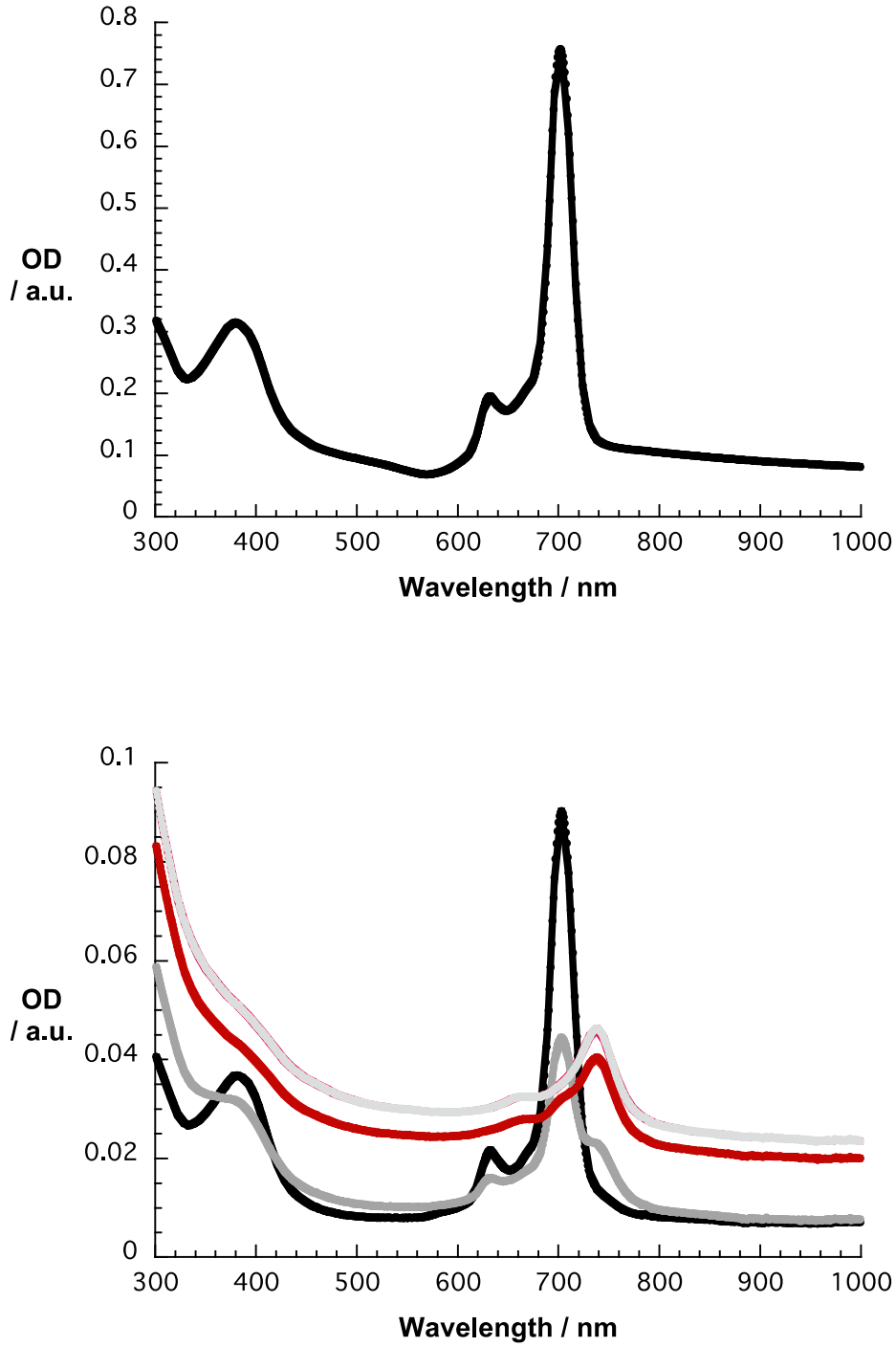


Figure S6: Upper part – absorption spectrum of **2.** Lower part – absorption spectra of **G2** after 1st enrichment (black spectrum), 2nd enrichment (dark grey spectrum), 3rd enrichment (red spectrum), and 4th enrichment (light grey spectrum).

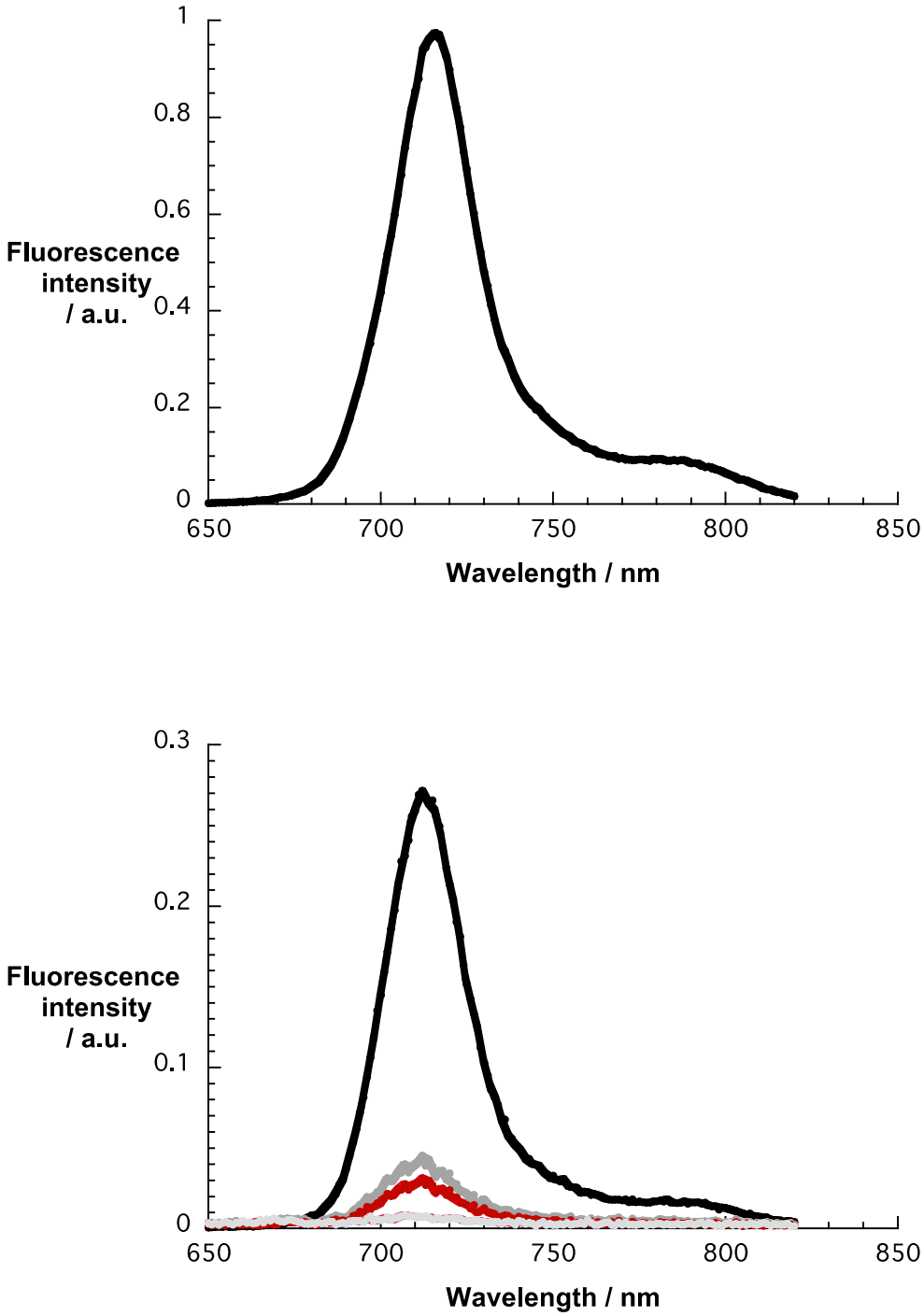


Figure S7: Upper part – fluorescence spectrum of **G2** before enrichment. Lower part - Fluorescence spectra of **G2** after 1st enrichment (black spectrum), 2rd enrichment (dark grey spectrum) – amplified by a factor of 5, 3rd enrichment (red spectrum) – amplified by a factor of 5, and 4th enrichment (light grey spectrum) – amplified by a factor of 5.

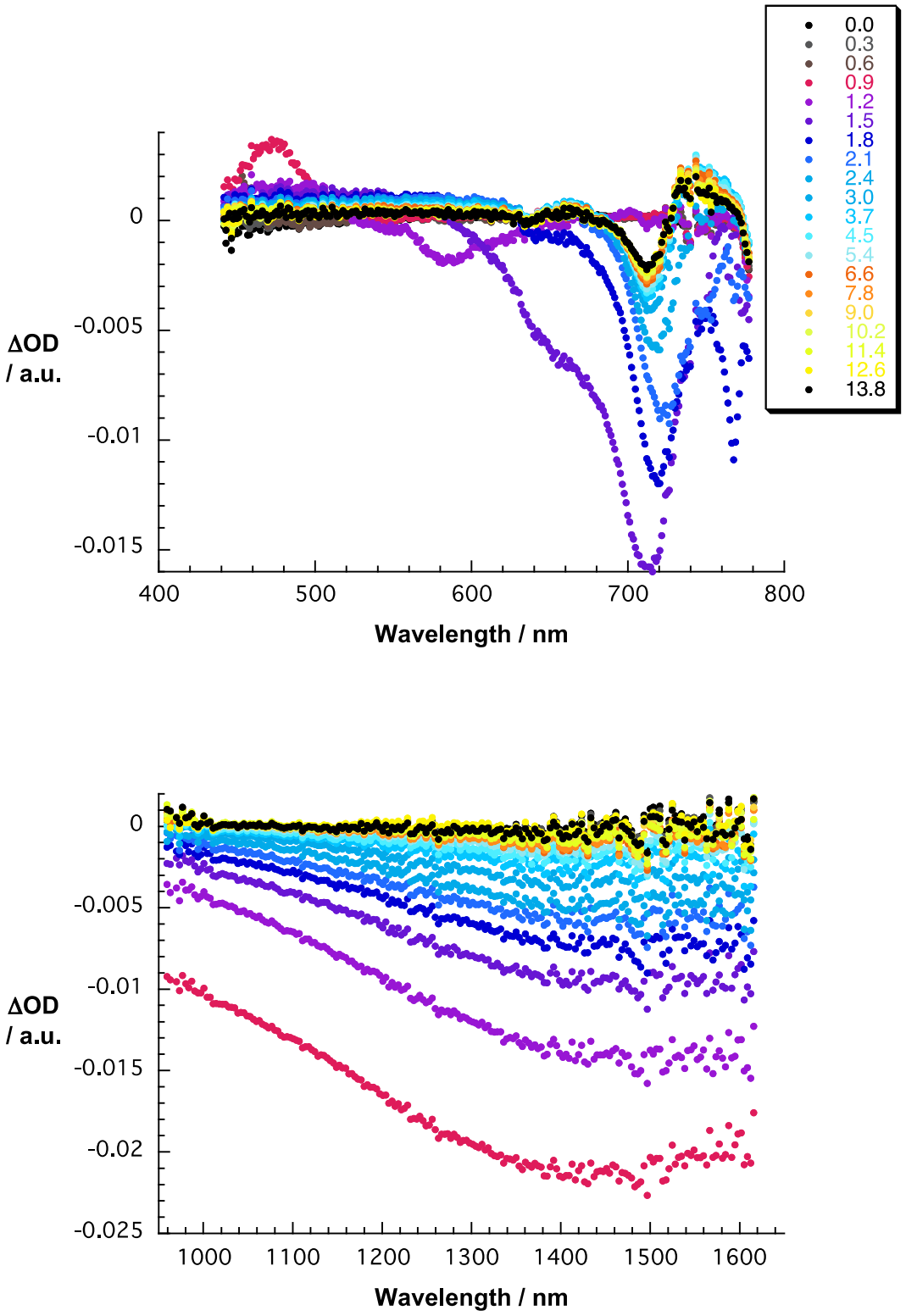


Figure S8: Upper part – differential absorption spectra (visible) obtained upon femtosecond pump probe experiments (387 nm) of **G1** in DMF with time delays between 0 and 13.8 ps at room temperature – for time delays see figure legend. Lower part – differential absorption spectra (near infrared) obtained upon femtosecond pump probe experiments (387 nm) of **G1** in DMF with time delays

between 0 and 13.8 ps at room temperature – for time delays see figure legend of upper part.

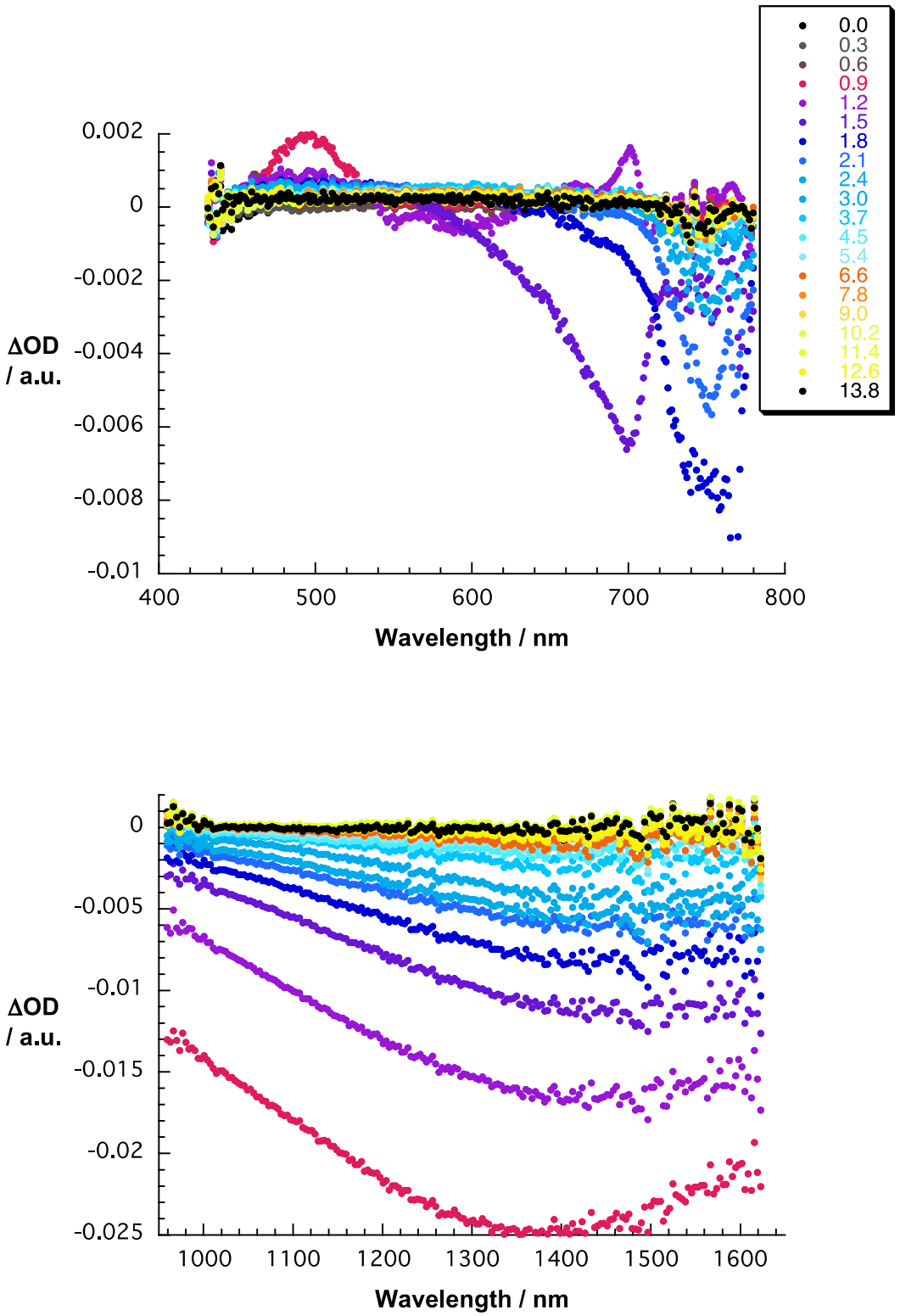


Figure S9: Upper part – differential absorption spectra (visible) obtained upon femtosecond pump probe experiments (387 nm) of **G3** in DMF with time delays between 0 and 13.8 ps at room temperature – for time delays see figure legend. Lower part – differential absorption spectra (near infrared) obtained upon femtosecond pump probe experiments (387 nm) of **G3** in DMF with time delays

between 0 and 13.8 ps at room temperature – for time delays see figure legend of upper part.