Orientational Order of Dyes in a Lyotropic Chromonic Liquid Crystal

(Electronic Supplementary Information)

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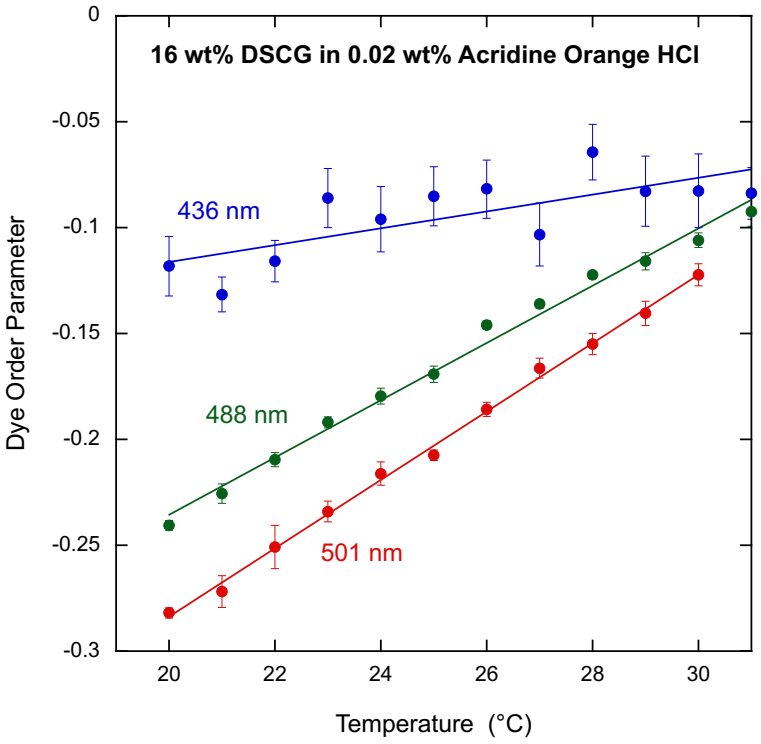

Figure S1: Order parameter of acridine orange HCl relative to the DSCG director as a function of temperature as measured at three wavelengths.

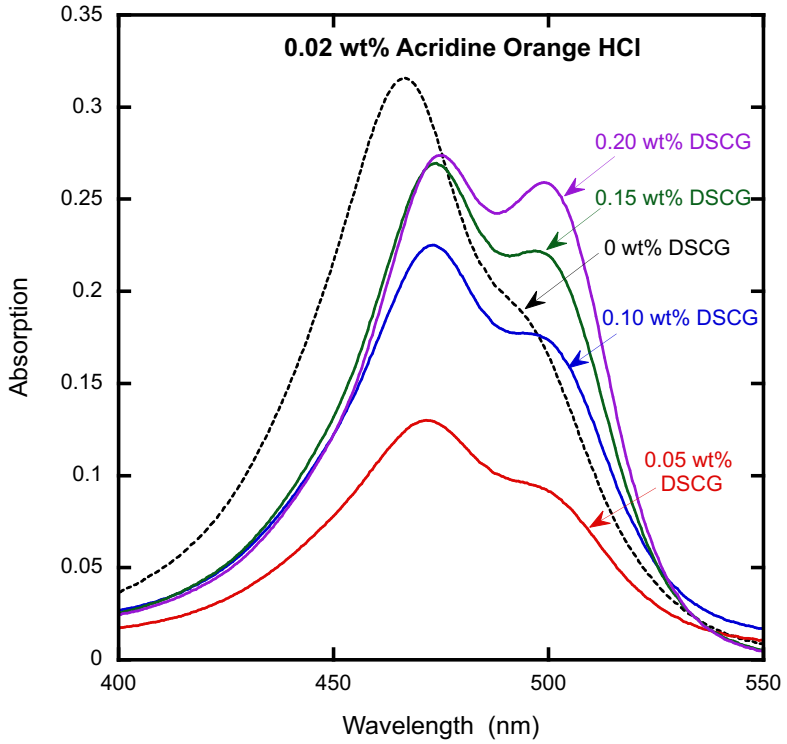

Figure S2: Acridine orange HCl spectra with low concentrations of DSCG. The absorption is decreased for the 0.05 wt% and 0.10 wt% DSCG solutions, (DSCG:AO stoichiometric ratios of 1.5 and 2.9, respectively), but is consistent with higher DSCG concentrations by 0.15 wt%.

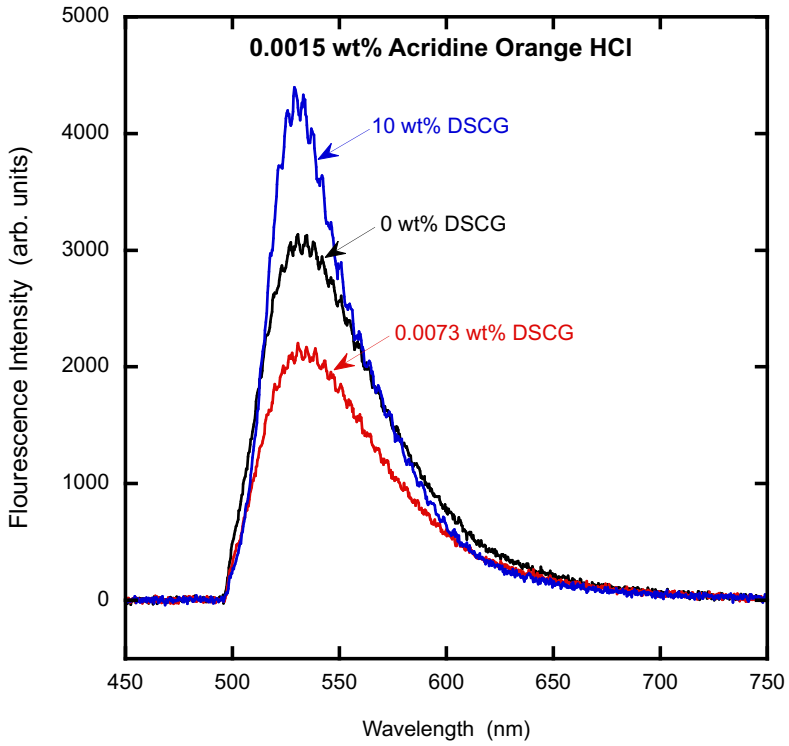

Figure S3: Fluorescence spectra of acridine orange HCl with low concentrations of DSCG. The intensity is decreased for the 0.0073 wt% DSCG solution (DSCG:AO stoichiometric ratio equal to 2.8), but is increased for the 10 wt% DSCG solution. Both DSCG solutions are in the isotropic phase.

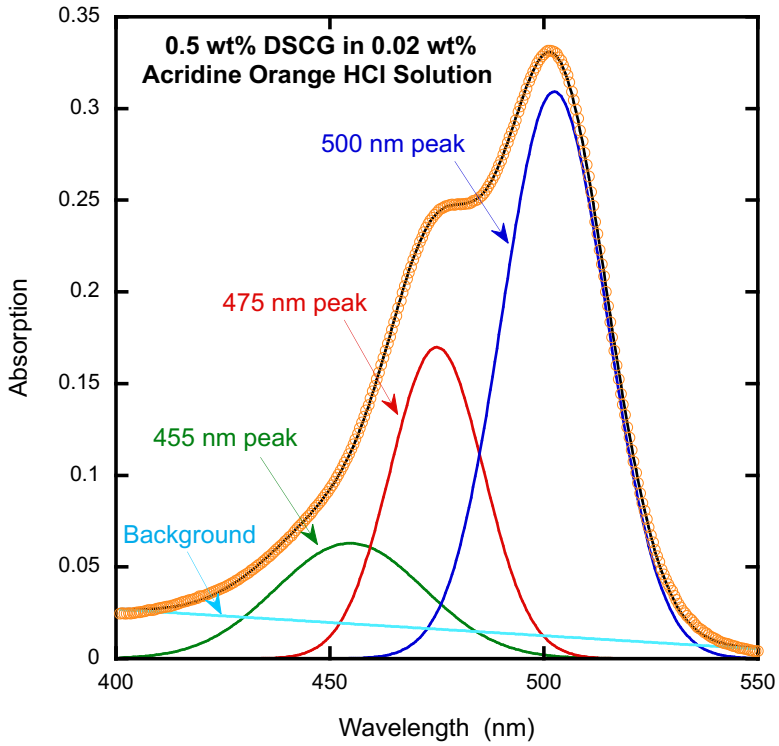

Figure S4: Fit using three peaks to the absorption spectrum of 0.5 wt% DSCG in a 0.02 wt% acridine orange HCl solution. The orange circles are the data and the black line is the fit.

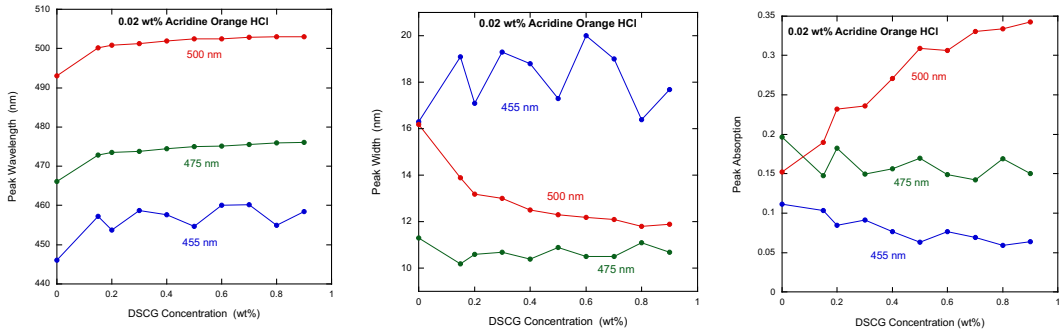

Figure S5: Results of fitting the spectra to three absorption peaks as a function of DSCG concentration in a 0.02 wt% solution of acridine orange HCl. The three absorption peaks are labeled by a typical value of their center wavelength.