Concentration Effects on the Dynamics of Liquid-Crystalline Self-Assembly: Time-Resolved X-ray Scattering Studies

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Supporting Information

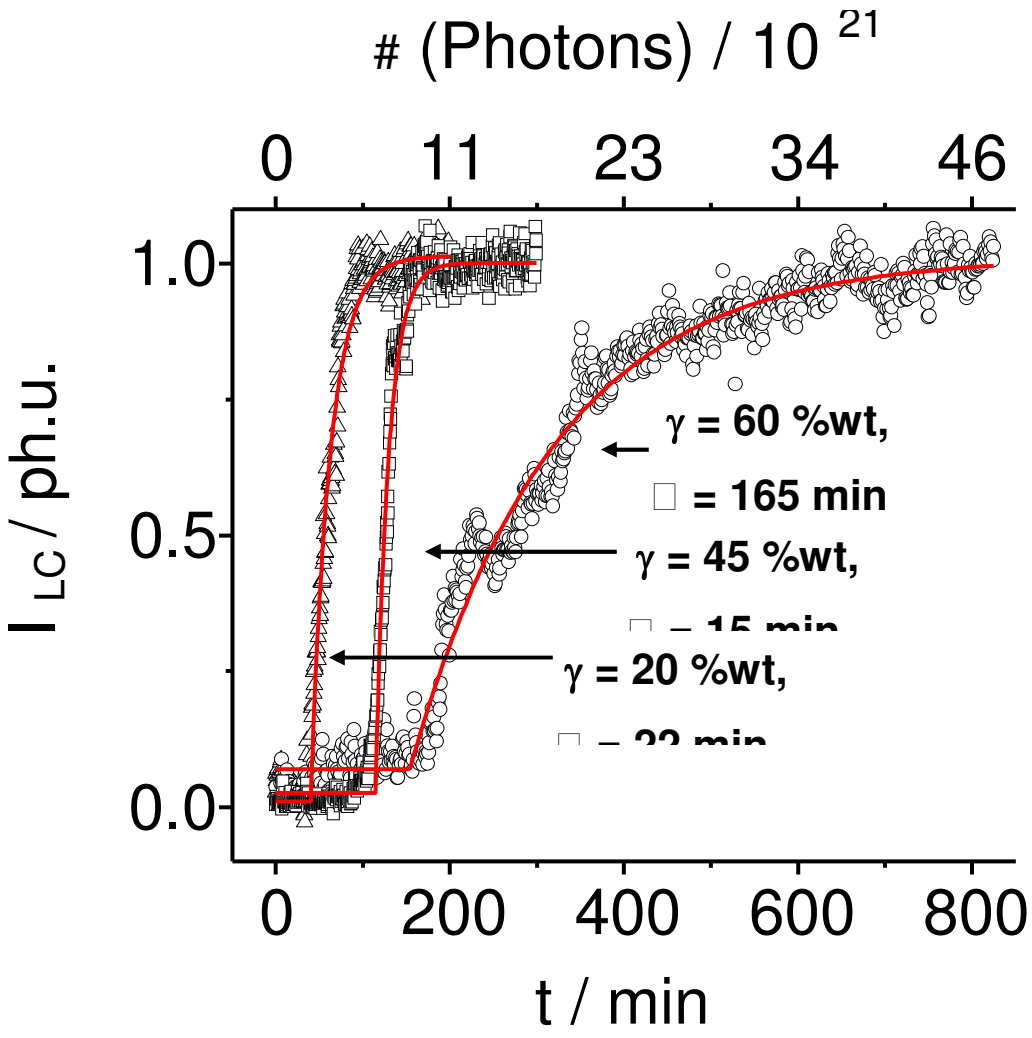
SUPPORTING INFORMATION

Figure S12

The normalized integral intensity of the liquid crystal Bragg peak increases as a function of irradiation time. As a first approximation, the conversion profiles follow a first order kinetic law after the induction time has elapsed.

Figure S13

Overlay of the transformation-profile showing the concentration dependence of the photo induced phase transition. After a characteristic induction time, the normalized integral intensity of the liquid crystal increases as a function of irradiation. As a first approximation, the conversion profiles follow a first order kinetic law after the induction time has elapsed (green lines). The curves in red are regression fits of the data according to the homogeneous dispersive kinetics theory allowing the determination of the activation energy E_A.


(Photons) / 10 21
0
11
23
34
46
1.0
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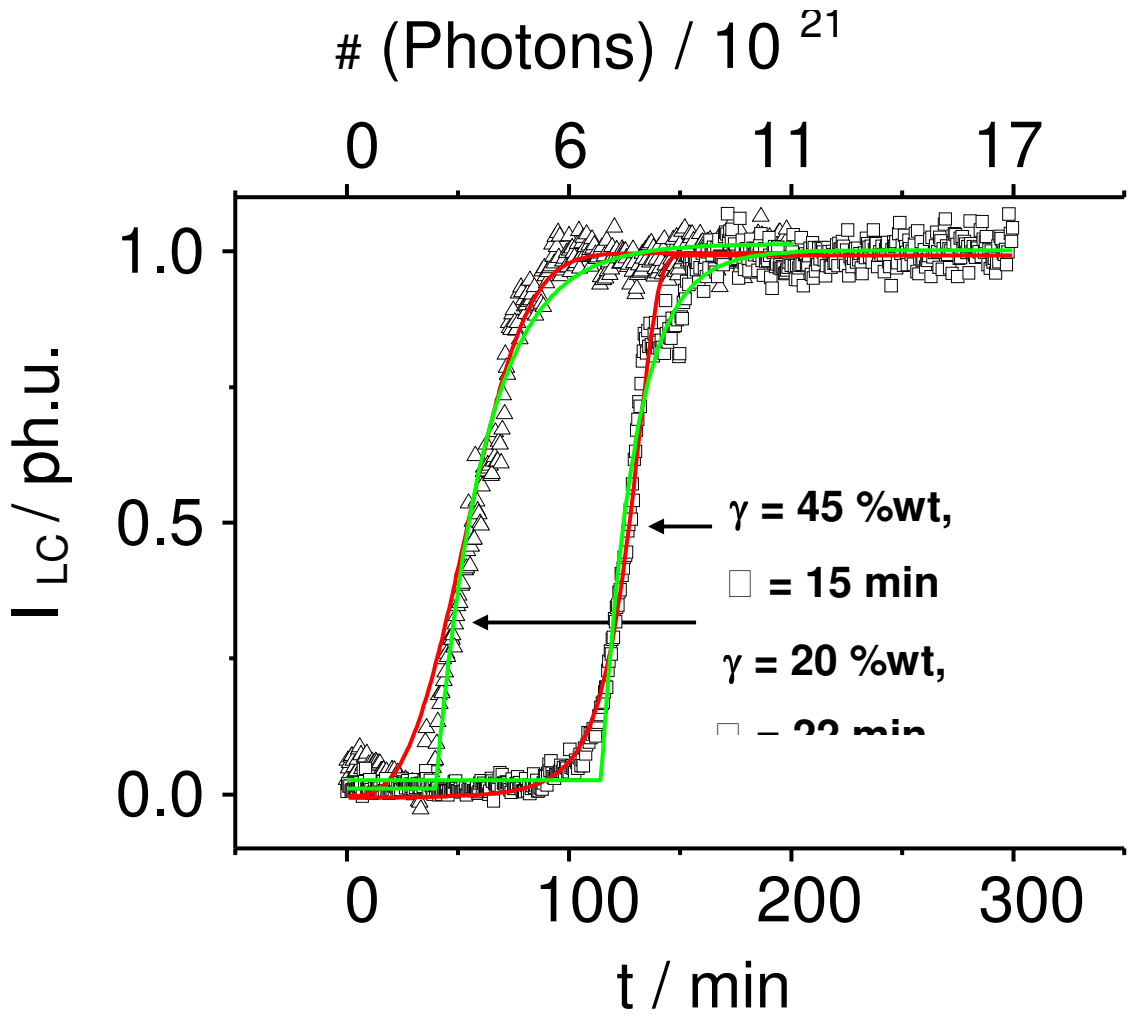
I LC / ph.u.
γ = 60 %wt,
= 165 min
γ = 45 %wt,
γ = 20 %wt,
0
200
400
600
800
t / min

Figure S12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I LC / ph.u.
γ = 45 %wt,
□ = 15 min
γ = 20 %wt,
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100
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t / min

Figure S13