

Supplementary Information-

## Phase Contraction, fluorescence quenching and formation of topological defects in chiral smectic C matrix by $\text{Cd}_{0.15}\text{Zn}_{0.85}\text{S}/\text{ZnS}$ core/shell quantum dots dispersion: Ultra-fast electro-optic response for gadget display application<sup>†</sup>

Dharmendra Pratap Singh,<sup>ab</sup> Benoit Duponchel,<sup>b</sup> Kirill Kondratenko,<sup>b</sup> Yahia Boussoualem,<sup>b</sup> Gonibasappa H. Pujar,<sup>c</sup> Sanjeev R. Inamdar,<sup>c</sup> Redouane Douali<sup>a</sup> and Abdelylah Daoudi<sup>b</sup>

Figure S1. Differential scanning micrograph (DSC) of FLC + ZnS shell.

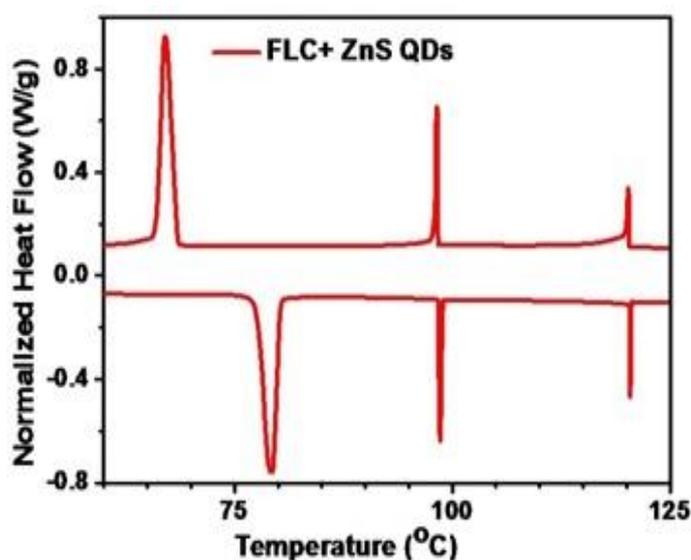


Figure S2. Polarized optical micrographs (POMs) of FLC + 0.3 wt%  $\text{Cd}_{0.15}\text{Zn}_{0.85}\text{S}/\text{ZnS}$  CSQDs at the vicinity of  $\text{SmC}^*-\text{Cr}$  phase transition.

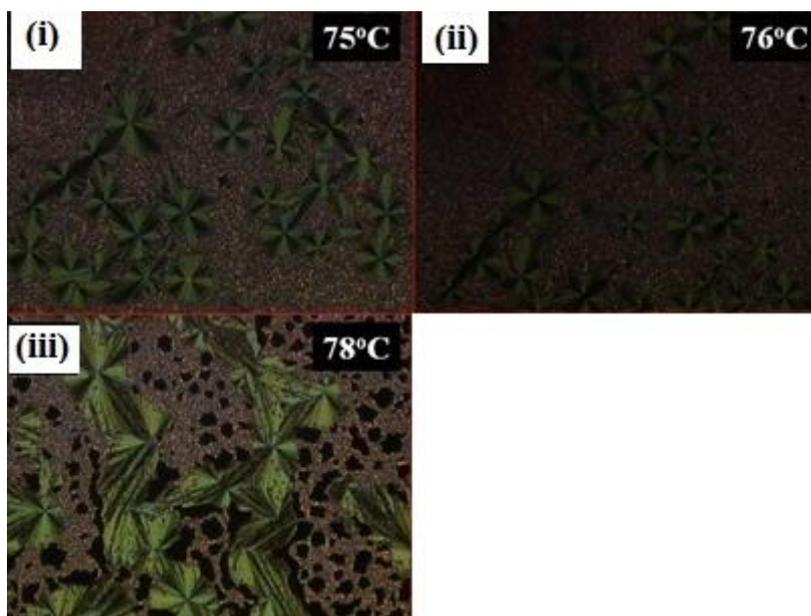


Figure S3. Small/Wide angle X-ray scattering (S/W AXS) spectrum of the pristine FLC compound in SmC\* phase ( $T = 81\text{ }^{\circ}\text{C}$ ).

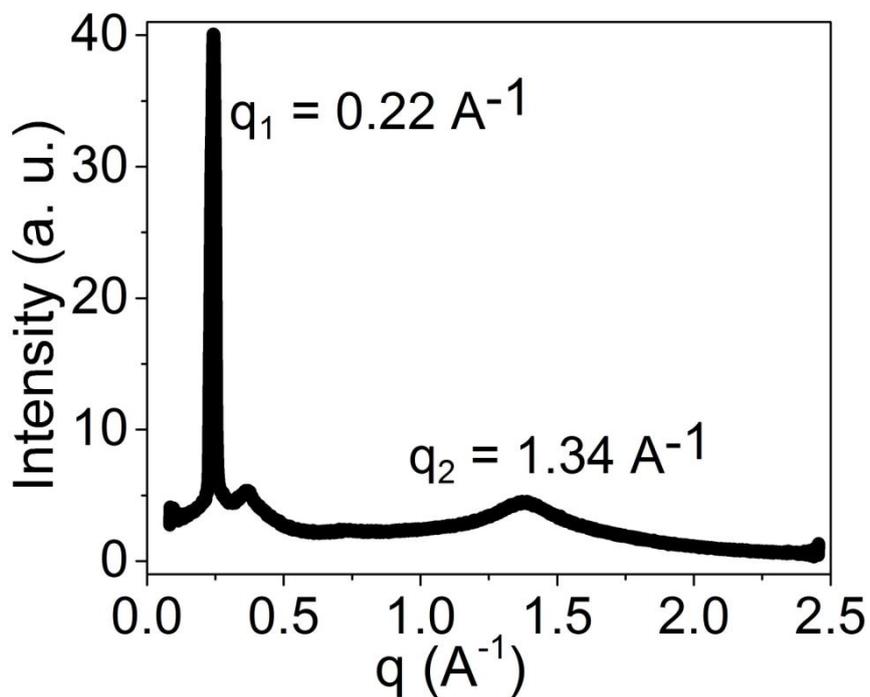


Figure S4. Polarized optical micrographs (POMs) and corresponding schematic representation of the molecular arrangement in pure FLC matrix and FLC/CSQDs composites.

