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We report on the selective imaging of different director fields in a biaxial smectic A (SmA) liquid crystal using Fluorescence Confocal Polarizing Microscopy (FCPM) and Polarizing Microscopy (PM). The patterns of two directors, namely the director  $\hat{a}$  perpendicular to the lamellae and the director  $\hat{b}$  in their planes are visualized by doping the liquid crystal with two fluorescent dyes.



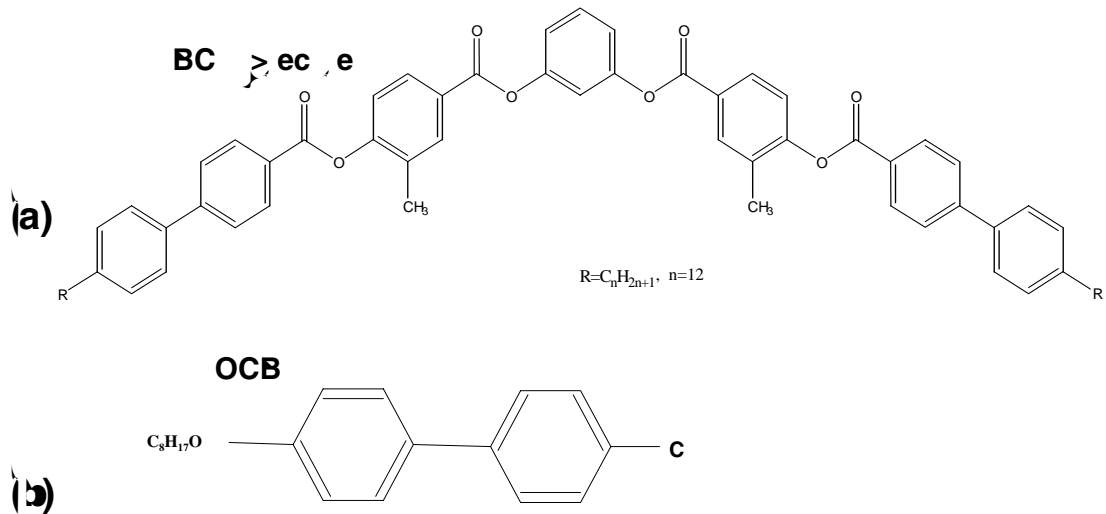
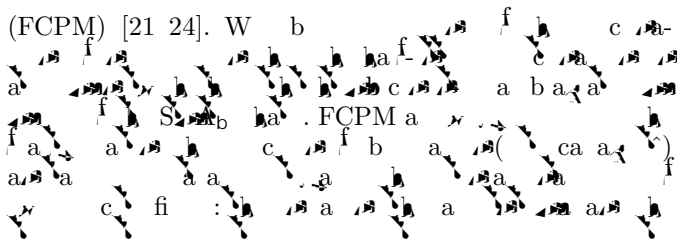
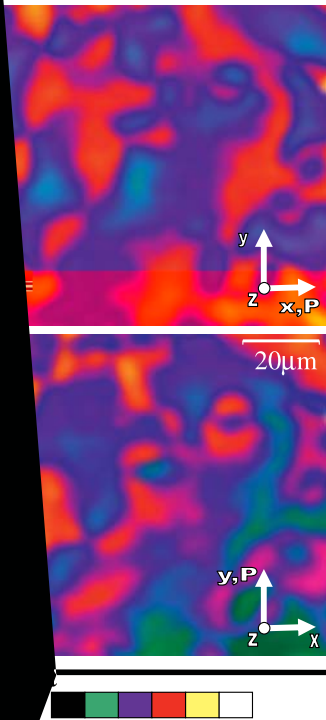


Fig. 3. Molecular structures of the liquid crystal compounds of the BC-R mixture: BC12 (a), 8OCB (b).



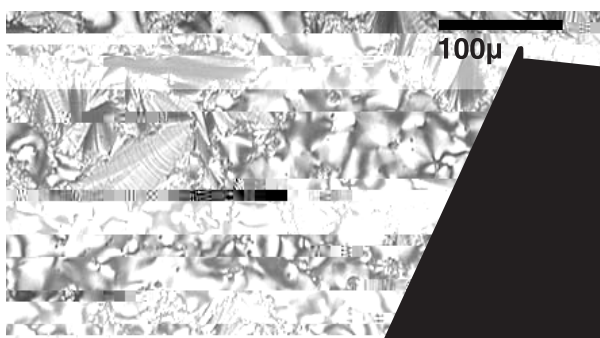


The  $DO_{18}(3)$  [35]. For  $4b$ ,  $B$   $DO_{18}(3)$   $\hat{P}_{\perp a}$   $\hat{P}_{\parallel a}$ ,  
 $A_{II}/A_{\perp} \approx 0.63$ ,  $\hat{P}_{\perp a}$   $\hat{P}_{\parallel a}$ . We  $ac$ .





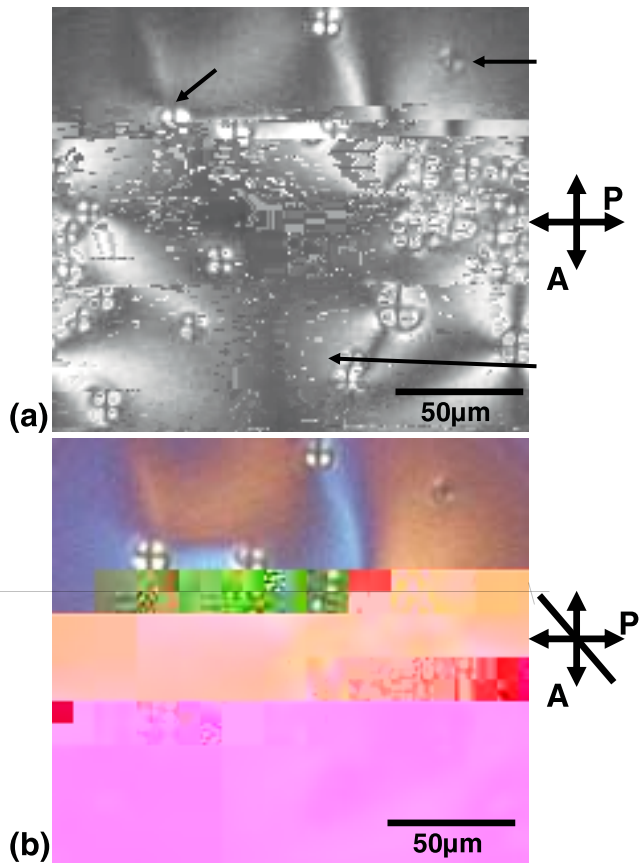
(a)

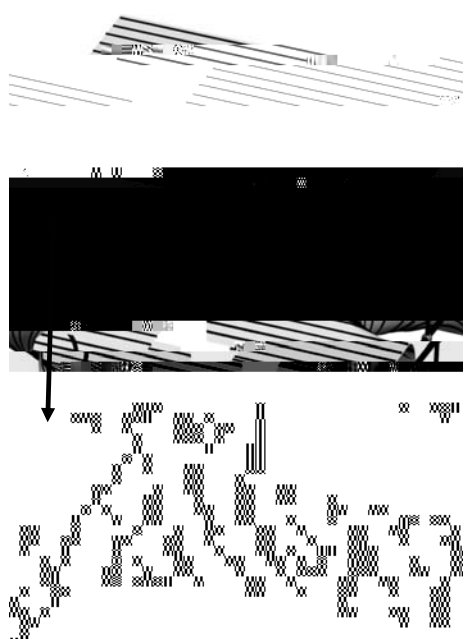


(b)

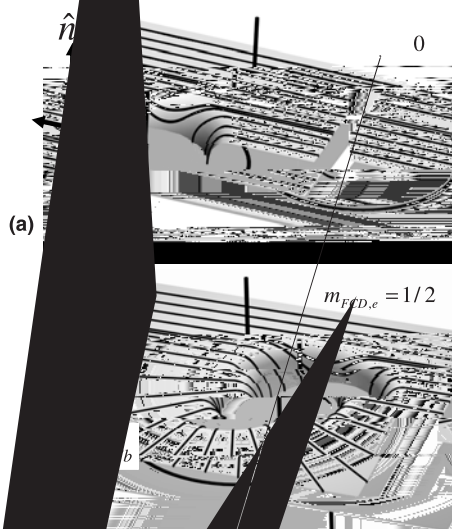












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