



Figure 4.5. (A) (Left) Phase diagram  $\tau$  vs.  $N$  of a droplet ( $\varphi = 1$ ) with strong planar degenerate anchoring ( $W = 1 \times 10^{-3} \text{ J/m}^2$ ). (Right) Representative configurations highlighted by colored markers on the phase diagram: Bipolar, Twist Bipolar (TwBs), Radial Spherical Structure (RSS), Blue Phase II (BP II), and Blue Phase I (BPI). (B) (Left) Phase diagram  $\tau$  vs.  $N$  of a droplet ( $\varphi = 1$ ) with moderate and weak planar degenerate anchoring ( $W = 1 \times 10^{-4} \text{ J/m}^2$ ). (Right) Representative configurations highlighted by colored markers on the phase diagram: Uniaxial, Twist Cylinder (TC),  $\tau$ -Cholesteric ( $\tau$ -Ch), Blue Phase II (BP II) and Blue Phase I (BPI). Contours of the scalar order parameter are shown in red. Streamlines of the director field are shown in gray lines. The colormap for the director field indicates the orientation of the molecules with respect to the surface: red for parallel and blue for perpendicular alignment.