How to control soft nanomaterials?

윤동기*
KAIST 나노과학기술대학원
(nandk@kaist.ac.kr*)

The successful control of the orientation and defect structures of complex soft materials can be achieved under convolution methods of various confining system including topographic substrates, shearing force, and electro-magnetic external field. This is quite significant for condensed material science because aligning complex soft materials is sometimes extremely hard to control. Based on experimental results of various microscopy techniques, it can be understood that various confining effect exert a strong structuring effect on the alignment of soft materials. The resulting macroscopic order should be of use in further exploration of the exotic physical properties, and offers a route for development of complex structures applications such as electronics, bio-mimics, membranes and other nonlinear optics.