Shape-Tunable Wrinkles and Some Defects in Liquid Crystals

Takuya Ohzono

National Institute of Advanced Industrial Science and Technology, Tokyo, Japan

The surface topography of materials affects various physical phenomena, e.g., wettability, optical property, tribological properties. Here, as an interesting surface, the shape-tunable wrinkles [1], which are buckling-based surface undulations on soft elastic substrates capped by a hard thin layer, are shown. With the shape-tunability, it is possible to tune capillary phenomenon on the surface, optical diffusion, and friction. Especially, some self-organized defect structures in liquid crystals bounded by the wrinkles are shown [2,3].

REFERENCES

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