Micro/nano-structures in Display Applications

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Conventional optical components such as lenses and mirrors have only smooth surfaces. By introducing micro/nano-structures to the surface of optical elements, attractive features can be achieved in functionality and form factor.

Some examples of micro/nano-structures in display application will be shown : wire grid polarizers (WGP) for LCDs [1] and coherent steering backlight units (BLUs) for Holographic Displays [2].

The demands of shrinking the size of the optical devices and systems increases, the importance of the micro/nano optics and micro/nano fabrications is increasing not only in the field of displays, but also other application fields, such as imaging, sensing.

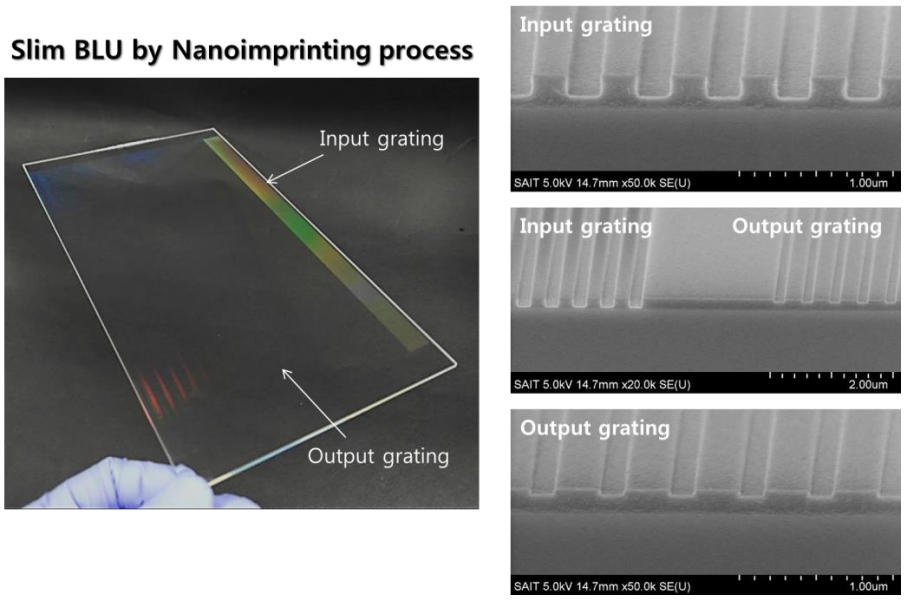

Fig.1. Photograph of slim coherent BLU and SEM images of the grating structures on top of it

References

1. W.-C. Wang, *et. al.*, *SID 2016 Digest* 40-3, 518 (**2016**).
2. H.-S. Lee, *et. al.*, *SID 2017 Digest* 48, 808 (**2017**).