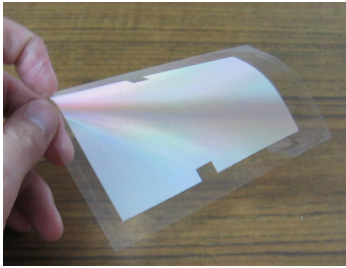
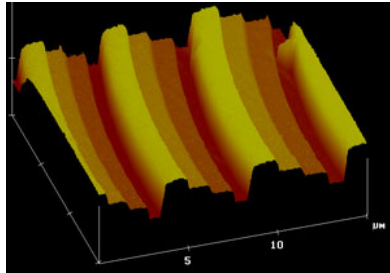


# Appendix – Color Demo Photographs

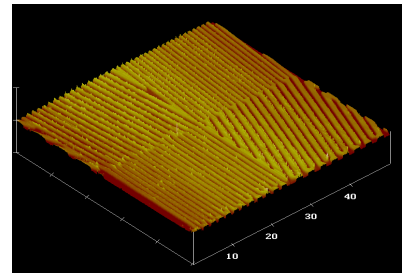
## Light control films (LCFs) – High brightness reflective LCDs



A 100 $\mu$ m thickness  
Light control film

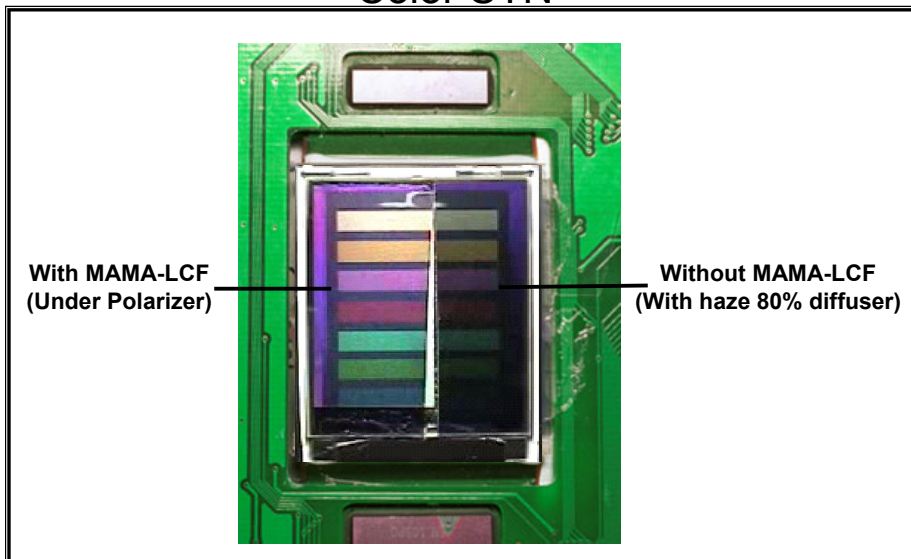


The four-level Fresnel lens  
structure on MAMA-LCF

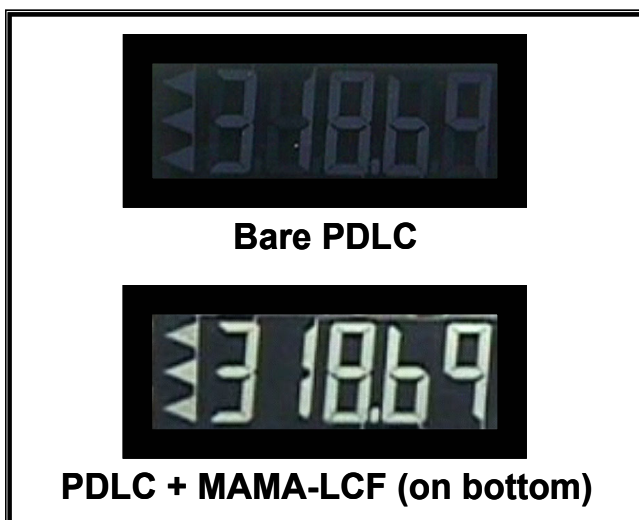


The random grating  
Structure on RG-LCF

### Color STN



### PDLC



### Cholesteric

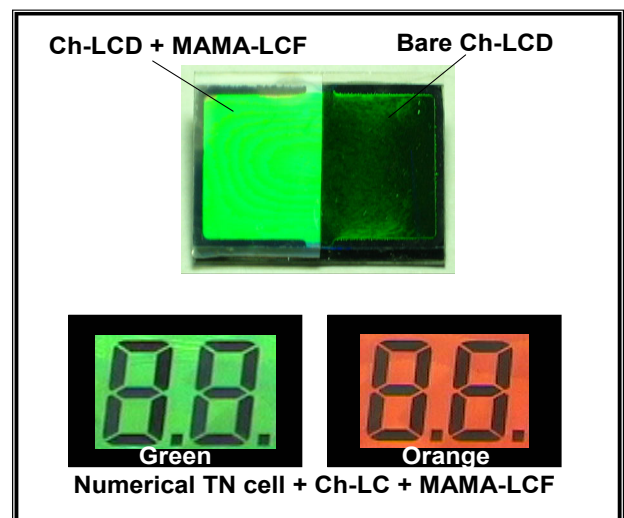
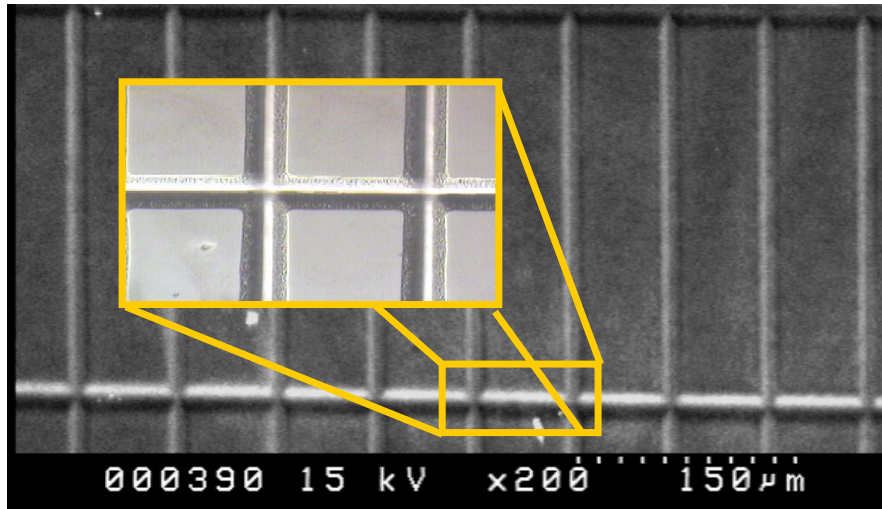


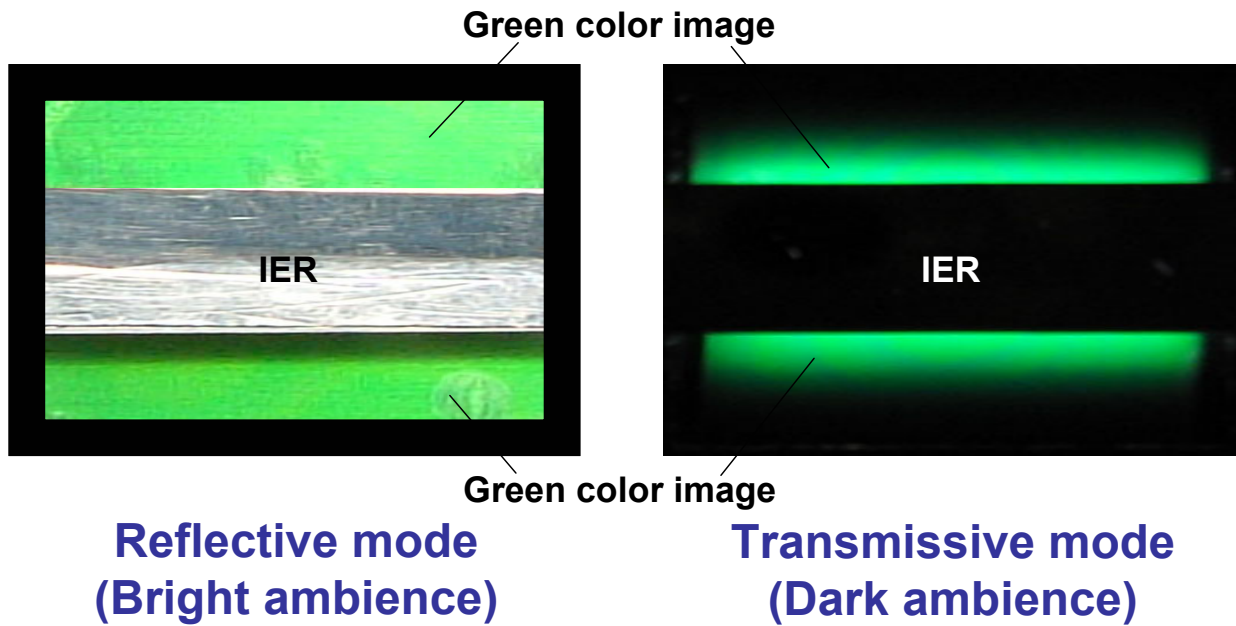
Fig. 4- 17. ( CH 4 - P. 83)

# Appendix – Color Demo Photographs

## Image-enhanced Reflector (IER) – First “transflective” Ch-LCD



The continuous profile IER structure with only one mask exposure (SEM measurement results)

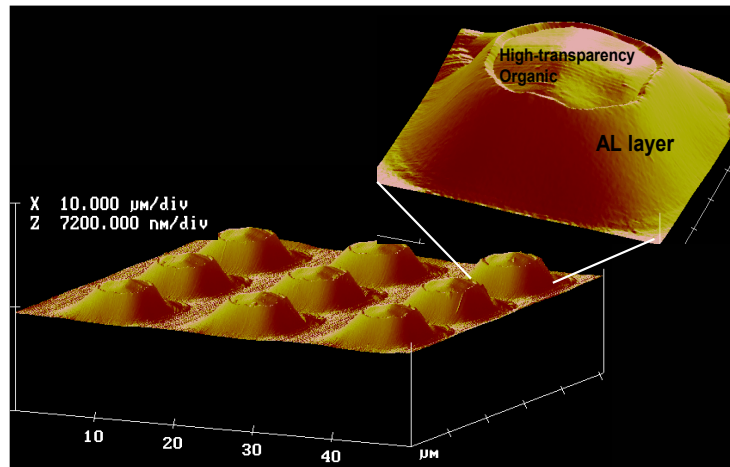


The first cholesteric LCD in the world demonstrates same color images for both reflective (left part) and transmissive (right part) modes by employing proposed image enhanced reflector.

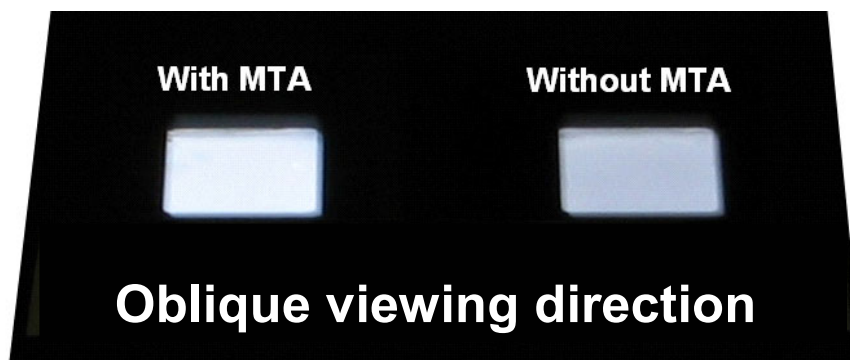
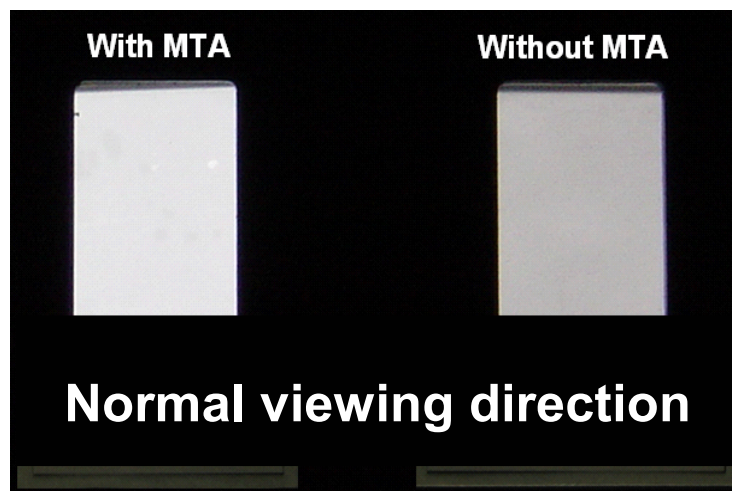
Fig.5- 17. (CH 5 - P. 110)

# Appendix – Color Demo Photographs

## Micro-tube array (MTA) – High backlight efficiency TR-LCD



The micro-tube array fabricated on glass substrate by using typical TFT-LCD process with thermal reflow technique (AFM measurement results)



Photographs of a transfective LCD with and without MTA structure at normal and oblique directions

**Fig. 6- 11. (CH 7 - P. 124)**

## Appendix – SID Awards

### SID 2001 Best Student Paper Award – Light Control Films



### SID 2004 Distinguished Student Paper Award – Image-enhanced Reflector

