oligmers, nematics, or active chiral additives. The non-polymerizable components pitch distribution is non linear resulting in a broad band of reflection wavelengths in the reflective cholesteric liquid crystal color filters produced. The non-polymerizable liquid crystal component is phase segregated from the polymerizable liquid crystal and diffuses along the UV field to generate a pitch gradient. The bandwidth is adjusted by the diffusion rate of the non-polarizable liquid crystal component being slower than the polymerization rate of the polymerizable liquid crystal.

[**0384**] Second Illustrative Embodiment Of The Generalized LCD Panel Construction Shown In **FIG. 2**

[**0385**] In the illustrative embodiments shown in **FIGS. 29 through 30**A2, the backlighting structure **7** is realized in a manner described above. Understandably, there are other techniques for producing a plane of unpolarized light for use in connection with the LCD panel of the present invention.

[**0386**] In the illustrative embodiment of FIGS. **29** through and **30**A2, the pixelated array of polarization rotating elements **9** is realized as an array of linear polarization rotating elements **9**' formed within a single plane. As indicated in FIGS. **30A1** and **3**o**A2**, each pass-band linear polarizing reflective element **10**A', **10**B', **10**C' in the pixelated pass-band linearly polarizing panel **10**' has a LP**2** characteristic polarization state, whereas the broad-band linear polarizing reflective panel **8**' adjacent the backlighting structure has an LP**1** characteristic polarization state and the broad-band linearly polarizing reflective panel **11**' has an LP**2** characteristic polarization state.

[**0387**] A method of making the broad-band linearly polarizing reflective panels **8**' and **11**' is disclosed in great detail in International Application Number PCT/US96/17464 entitled "Super Broad-band Polarizing Reflective Material" published on May 9, 1997 under International Publication Number WO 97/16762, which is incorporated herein by reference in its entirety. The reflection characteristics of the broad-band linearly polarizing reflective panel **8**' are graphically illustrated in **FIG. 30B** for incident light having linear polarization state LP**1**, whereas the reflection characteristics of the broad-band linearly polarizing reflective panel **11**' are graphically illustrated in **FIG. 30C** for incident light having linear polarization state LP**2**.

[**0388**] In the illustrative embodiment of FIGS. **30A1** and **30**A**2**, the polarization rotating array **9** is realized as an array of electronically-controlled linear polarization rotating elements **9**A', **9**B', **9**C' for rotating the linearly polarized electric field along LP**1** to the LP**2** polarization direction as the light rays are transmitted through the spatially corresponding pixels in the LCD panel. In the illustrative embodiment of FIGS. **30A1** and **30A2**, each electronically-controlled linear polarization rotating element can be realized as a twisted nematic (TN) liquid crystal cell, super-twisted nematic (STN) liquid crystal cell, or ferro-electric cell, whose operation is by controlled by a control voltage well known in the art. To construct the linear polarization rotating elements, thin film transistors (TFTs) can be used to create the necessary voltages across a layer of liquid crystal material to achieve alignment of the liquid crystal molecules and thus cause the corresponding element to not rotate the polarization direction of transmitted light passing therethrough. In its electrically-inactive state (i.e. no voltage is applied), the electric field intensity of light exiting from the cell is substantially zero and thus a "dark" subpixel level is produced. In its electrically-active state (i.e. the threshold voltage V_T is applied), the electric field intensity of light exiting from the cell is substantially non-zero and thus a "bright" subpixel level is produced.

[**0389**] In the illustrative embodiment of **FIG. 30A1** and **30**A**2**, the pixelated array of spectral filtering elements **10** is realized as an array of pass-band linear polarizing reflective elements **10**A', **10**B', **10**C' formed within a single plane. Broad-band linearly polarizing reflective panel **11**' is laminated to the pixelated array of spectral filtering elements **10**.

[**0390**] As shown in **FIG. 30**D, each pass-band polarizing reflective element **10**C' associated with a "blue" subpixel in the pixelated pass-band linear polarizing panel **10**' is particularly designed to reflect nearly 100% all spectral components having the LP**2** characteristic polarization state and a wavelength within the green reflective band $\Delta\lambda_G$ or the red reflective band $\Delta\lambda_R$, whereas all spectral components having the LP**2** characteristic polarization state and a wavelength within the blue reflective band $\Delta\lambda_B$ are transmitted nearly 100% through the pass-band polarizing reflective element. The pass-band polarizing reflective element associated with each "blue" subpixel is "tuned" during fabrication in the manner described hereinabove.

[**0391**] As shown in **FIG. 30**E, each pass-band polarizing reflective element **10**B' associated with a "green" subpixel in the pixelated pass-band linearly polarizing panel **10**' is particularly designed to reflect nearly 100% all spectral components having the LP**2** characteristic polarization state and a wavelength within the red reflective band $\Delta\lambda_R$ or the blue reflective band $\Delta\lambda_B$, whereas all spectral components having the LP**2** characteristic polarization state and a wavelength within the green reflective band $\Delta\lambda_G$ are transmitted nearly 100% through the pass-band polarizing reflective element. The pass-band polarizing reflective element associated with each "green" subpixel is "tuned" during fabrication in the manner described hereinabove.

[**0392**] As shown in **FIG. 30**F, each pass-band polarizing reflective element **10**C' associated with a "red" subpixel in the pixelated pass-band linear polarizing panel **10**' is particularly designed to reflect nearly 100% all spectral components having the LP**2** characteristic polarization state and a wavelength within the green reflective band $\Delta\lambda_G$ or the blue reflective band, whereas all spectral components having the LP**2** characteristic polarization state and a wavelength within the red reflective band $\Delta\lambda_R$ are transmitted nearly 100% through the pass-band polarizing reflective element. The pass-band polarizing reflective element associated with each "red" subpixel is "tuned" during fabrication in the manner described hereinabove.

[**0393**] The pixelated pass-band linearly polarizing reflective panel **9**' can be fabricated in a manner similar to the way described in the LCD panel fabrication method described hereinabove.

[**0394**] The Second Generalized LCD Panel Construction Of The Present Invention

[**0395**] In the second generalized LCD panel construction shown in **FIG. 31**, spectral filtering occurs before spatial intensity modulation. In the first illustrative embodiment of this LCD panel construction shown in FIGS. **31A1** and **31A2**, circular polarization techniques are used to carry out