Flexo-Electro-Optical Properties of Fullerene-C(Buckyballs) Suspended in 4'-Pentyl-4-Biphenyl (5CB) JONATHAN FOUST, ANGELO VISCO, RIZWAN MAHMOOD, Slippery Rock Univ — We have investigated electro optical properties of a widely studied liquid crystal (5CB) when fullerene C-60 (buckyballs) is suspended in various concentrations as a function of temperature. Under a polarizing microscope, we have observed disclination (defect) points at the sites of buckyballs suggesting a strong interaction between the two components. The data indicate a shift in the transition temperature and sudden decrease in dielectric anisotropy ($\Delta\varepsilon$) at some critical concentration (~0.15 wt. %) of fullerene. A sudden increase was also observed upon increasing the concentration of buckyballs that remains constant with in the experimental uncertainty. **Keywords:** buckyballs, fullerene, liquid crystal, dielectric anisotropy  
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