

**Synthesis and mesomorphic properties of  
new 3,6-diarylpyridazine derivatives**

Y.J.Jeon, J.C.Lee, S.H.Jin, Y.S.Park\*, S.E.Park\*, Y.B.Kim\*

Display Lab., SAIT(Samsung Advanced Institute of  
Technology), Suwon, P.O.Box 111, 440-600, Korea

\*Chemistry Dep., Kon-Kuk University, 93-1, Mojin-Dong,  
Seongdong-Gu, Seoul, 133-701, Korea

The six members of 3,6-diarylpyridazine derivatives as a model of ferroelectric liquid crystal have been designed and synthesized. The compounds have a general structure  $R-X-Y-X-R^*$  where Y is pyridazine ring, X phenyl ring, R alkyloxy chain of which the carbon number varies from 5 to 11, and  $R^*$  (S)-2-methylbutyl group. The mesomorphic properties of the synthesized compounds were evaluated by differential scanning calorimetry(DSC) and polarizing microscopy. ALL of them show mesophase with a wide temperature range containing chiral smectic C phase.