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EFFECTS OF PLASTICIZERS ON THE ELECTROPHYSICAL PROPERTIES OF AC POWDER ELECTROLUMINESCENT DEVICES, CHEONG-A. BAEK, VLADIMIR. I. VLASKIN, S. W. LEE, JU-HYEON LEE (Electronic Thin Film Lab., Dept. of Materials Science and Engineering, Sunmoon University, Asan, Choongnam 336-840, Korea) and SUNG PARK (Dept. of Inorganic Materials Engineering, Myong Ji University, Yongin-kun, Kyungi-do 449-728, Korea)

AC powder electroluminescence (EL) devices were prepared using several kinds of plasticizers and polymers. Optical and electrophysical characteristics of the AC powder EL were investigated. Plasticizers such as the derivatives of glycol, adipic acid, phosphoric acid, phthalic acid and polymers such as the derivatives of polyvinyl alcohol, cellulose and polyvinyl chloride were chosen for this study. The maximum brightness of 200 Cd/m² at 100V, 400Hz was obtained. These results show that the brightness characteristics of EL devices were very dependent on the dielectric constants of plasticizers. In this presentation, The effects of plasticizers on the characteristics of AC powder EL devices will be discussed in detail.