Pengembangan Film PVA Dimodifikasi dengan Polyacylic Acid Partial Sodium (PAAPS) sebagai Film Sensitif Kelembaban

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Abstrak

Partial Sodium (PAAPS) dipreparasi dengan metode pencelupan (dip-coating), film dideposisikan pada sepasang elektroda sisir terbuat dari perak yang ditempelkan pada substrat PCB untuk selanjutnya disebut film PVA-PAAPS. Sifat mekanik film diteliti dengan mengukur tingkat fraksi gel dan swelling film, topografi film diteliti melalui uji SEM, sedangkan sifat listrik film dikarakterisasi menggunakan RCL meter. Film PVA juga dimodifikasi dengan PAAPS dan NaOH, selanjutnya disebut film PVA-PAAPS-NaOH. Dengan penambahan NaOH, PVA dan PAAPS dapat tercampur dengan baik dan berinterpenetrasi. Dengan menambahkan NaOH fraksi gel film meningkat dan swelling film menurun, Disisi lain penambahan NaOH juga meningkatkan konduktivitas film, serta meningkatkan reproduksibilitas fabrikasi film. Sedangkan stabilitas film, akibat faktor usia impedansi film masih menigkat.
.....Humidity sensitive film Polyacrylic Acid Partial Sodium (PAAPS) modified PVA, prepared by dipcoating methods, deposed film on a pair comb electrode made by silver, that attached to PCB substrat, its called PVA-PAAPS film. Film mechanic properties studied by measured gel fraction and swelling of film, film topographies studied by SEM test, but characterization of film electric properties by RCL meter. PAAPS and NaOH modified PVA film, its called PVA-PAAPSNaOH film. PVA and PAAPS are intimately mixed and interpenetrated by applied NaOH. Application of NaOH for gel fraction increased and swelling decreased. On the other hand, application of NaOH for increasing conductivity and reproducibility of film. About film stabilities, by aging effect impedance are increasing.