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Influences of degradation of MgO and phosphor on ion-induced secondary electron emission coefficient(γ) and basic discharge characteristics in AC-PDP

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The characteristics of degradation of the ion-induced secondary electron emission coefficient (γ) and basic discharge have been investigated by -FIB system and PDP chamber system, respectively. The ion-induced secondary electron emission coefficient(γ) for the degraded MgO protective layer and the phosphor have been studied by γ -FIB (focused ion beam) system. The energy of Ne+ ions used has been ranged from 80eV to 200eV throughout this experiment. Also, the basic discharge characteristics of the firing, sustain voltages and currents have measured by oscilloscope and PDP driving system in the PDP chamber. The degraded MgO and phosphors are found to have the higher values at their respective acceleration voltage range than the normal MgO protective layer and phosphors.