Comparison of DC and RF magnetron sputtering systems for Electrochromic W/Ti Thin Film Deposition

ERDOGAN TEKE, MELEK KIRISTI, AYSEGUL UYGUN OKSUZ, FERHAT BOZDUMAN, ALI GULEC, LUTFI OKSUZ, Suleyman Demirel University, AHMED M. HALA, KACST —

In this study electrochromic tungsten-titanium thin films were deposited on ITO (indium thin oxide) glasses by using both DC and RF magnetron sputtering techniques. The discharges have been operated in same discharge power, geometry and argon/oxygen mixture pressure for comparison. The voltage and current characteristics and optical emission spectrums of both plasma systems will be given. The plasma parameters are determined by a double probe. ITO thin films coating electrical, optical and morphological characteristics will be compared.