Dielectric constant and dielectric loss found to be lower in Na_2S added ADP compared to pure ADP. The Jonscher's Plot is applied to the a.c. conductivity. The complex modulus spectra showing two semi-circle for pureADP due to presence of grain and grain boundary and single semi circle for Na_2S added ADP due to effect of grain only. The streched exponent revels more debye type relaxation in doped samples compare to pure one. The Impedance and Modulus spectroscopy found to be very sensitive for small concentration of dopant in ADP.

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