substance: PdO
property: transport properties

PdO is reported as a p-type semiconductor [65H, 67O, 71R]. Temperature dependence of conductivity: Fig. 1.

transport parameters

S	+ 250 μV K^{-1}	T = 300 K		65H
E_A	0.04...0.1 eV	T = 4.2...300 K	activation energy for conductivity of single crystals	71R
μ	17 $cm^2/V\ s$	T = 300 K	polycrystalline films	67O
R_H	5 $cm^3\ C^{-1}$	T = 300 K	polycrystalline films	67O
ρ	10...1000 Ω cm	T = 300 K	typical values	71R
σ	$9 \cdot 10^{-2}$...30 $\Omega^{-1}\ cm^{-1}$	T = 77...560 K	polycrystalline films	67O

References:

65H Hulliger, F.: J. Phys. Chem. Solids 26 (1965) 639.
67O Okamoto, H., Aso, T.: Jpn. J. Appl. Phys. 6 (1967) 779.
71R Rogers, D. B., Shannon, R. D., Gillson, J. L.: J. Solid State Chem. 3 (1971) 314.

Fig. 1.

PdO. Conductivity vs. reciprocal temperature for polycrystalline films of various thicknesses measured in various atmospheres [67O].