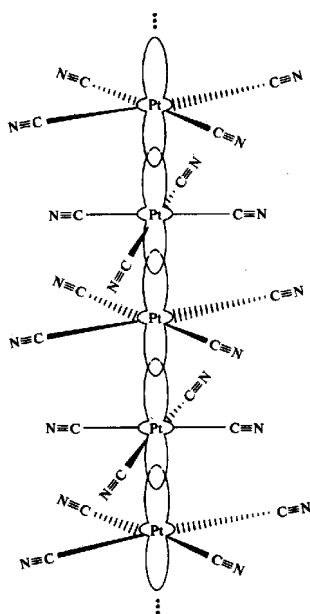
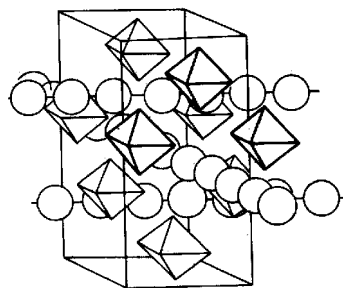


# “One Dimensional” Conductors



**TABLE 12.7**  
**Properties of some tetracyanoplatinates<sup>†</sup>**

Complex	Pt oxidation state	Pt—Pt distance, Å	Color	Conductivity, $\Omega^{-1} \text{ cm}^{-1}$
Pt metal	0	2.775	Metallic	$9.4 \times 10^4$
$\text{K}_2\text{Pt}(\text{CN})_4 \cdot 3\text{H}_2\text{O}$	+2	3.50	White	$5 \times 10^{-7}$
$\text{K}_2\text{Pt}(\text{CN})_4\text{Br}_{0.3} \cdot 3\text{H}_2\text{O}$	+2.3	2.89	Bronze	4 – 830
$\text{K}_2\text{Pt}(\text{CN})_4\text{Cl}_{0.32} \cdot 3\text{H}_2\text{O}$	+2.32	2.88	Bronze	~ 200
$\text{K}_{1.75}\text{Pt}(\text{CN})_4 \cdot 1.5\text{H}_2\text{O}$	+2.25	2.96	Bronze	~ 80
$\text{Cs}_2\text{Pt}(\text{CN})_4(\text{HF}_2)_{0.39}$	+2.39	2.83	Gold	

<sup>†</sup> J. S. Miller and A. J. Epstein, *Prog. Inorg. Chem.*, **20**, 1 (1976); G. D. Stucky, A. J. Schultz, and J. M. Williams, *Ann. Rev. Mater. Sci.*, **7**, 301 (1977).