Table I. Summary of Steady-State Electrotransport Experiments*

Initial Carbon Content, wt pct	Temperature °C	Time h	Average Current Density, kA/cm^2	Resistivity, $\mu\Omega\cdot cm$	$d\ln\gamma/d\ln n$	Effective Charge, Z^*
0.11	1027	3.5	2.31	117.3	0.02	4.0
0.47	1027	3	2.57	119.0	0.13	4.4
0.6	1027	3	2.69	119.6	0.18	4.4
0.8	1027	3	2.62	120.6	0.24	4.3
1.0	1027	3	2.85	121.5	0.32	4.2
0.13	977	6	2.19	115.7	0.03	4.0
0.5	977	5	2.51	117.0	0.11	4.1
0.11	927	12	0.47	113.4	0.03	3.9
0.12	927	8	1.295	113.5	0.035	4.2
0.13	927	6	2.22	113.5	0.04	4.2
0.47	927	8	1.39	115.2	0.15	4.5
0.47	927	8	2.17	115.2	0.15	4.5
1.0	927	5	0.435	117.8	0.34	4.5
0.47	827	41	2.90	115.2	0.17	4.4

*The experimental conditions were described previously.[1] Specimens were 1 mm in the direction of transport.

Consequently the value of Z^* characteristic of the carbon content at about the center of the curve (essentially the initial carbon content of the specimen) could be determined from the best straight line through the data. Z^* values obtained in this manner from the present experiments and also from those of Ref. 1 are listed in the last column of Table I. The observed variation in Z^* from 3.9 to 4.5 could not be correlated with any of the experimental variables; carbon content, temperature or current density. Therefore the present data give a Z^* value of 4.2 ± 0.3.

In view of the consistent, reproducible results obtained by the present steady-state method, it is difficult to explain the widely varying values of Z^* reported for the identical system by investigators using unsteady-state methods. In addition to the results previously summarized,[1] Z^* values have recently been reported by Falquero and Youdelis[6] and by Nakajima *et al.*[15] Both investigations studied the effect of an electric field on diffusion in semi-infinite sandwich specimens with an average carbon content of 0.25 wt pct. Z^* values were determined in the range 920 to 980°C and for current densities from 10^2 to 10^3 A per sq cm. Nakajima *et al.* found Z^* to be about 8 and independent of current density. Falquero and Youdelis found Z^* to increase with current density from 0 to a maximum of about 14 at 260 A per sq cm and then to decrease to about 4 or 5 at 10^3 A per sq cm.

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Corrections to *Met. Trans.*, 1973, Vol. 4

Transition Metal Alloys of Extraordinary Stability; An Example of Generalized Lewis-Acid-Base Interactions in Metallic Systems, by Leo Brewer and Paul R. Wengert, pp. 83-104.

Page 88, left hand column, change rhenium to rhodium, twice.

Page 98, left hand column, under Section B
Change rhenium to rhodium, four times.

Page 98, right hand column, under Section C
Change rhenium to rhodium, once.

The authors of Ref. 42 have reported (LA-UR-73-529, June 1973 and private communication, July 1973) that their value of the enthalpy of formation of HfO_2 should be 6.5 kcal/mol less negative. Thus $\Delta H^\circ_{f,298}$ of $HfC_{0.96}$ in Table V on p. 93 should be −51.1 kcal/mol and all ΔF°_f values for hafnium carbide in Table V should be 6.5 kcal/mol less negative. The two limits given in Table XII for hafnium compounds should be 1 kcal/g-atom less negative.