

ered as a function of clay content. The increment in R_p due to a decrease in clay content is well observed for CR4, CR3, CR2, and CR1 soils, respectively, which means that the corrosion current decreases and as a result soil corrosivity reduces. Corrosion current (I_{corr}), which is directly related to corrosion rate, decreases for the soils of areas CR4, CR3, CR2, and CR1, respectively.¹⁵ The results show that the electrochemical experiments are in good agreement with weight loss test results.

Conclusion

In this study soils corrosivity assessments of the central desert regions of Iran were investigated by the 10-point method. One of the most influential parameters in soil corrosivity is electrical resistance. This value is equal to 48.7 and 4.6 Ω m for the soils of CR1 and CR4 zones with the lowest and highest corrosion rates, respectively, which indicated an inverse relationship between soil resistivity and corrosion rate. The trend of change in the intensity of the corrosion current is decreasing for CR4, CR3, CR2, and CR1, respectively.

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TABLE 5 POLARIZATION PARAMETERS FOR SOIL AREAS CR1, CR2, CR3, AND CR4

Position	E _{corr} (mV)	B _c (V/dec)	B _a (V/dec)	Log I _{corr}	I _{corr} (μ A/cm ²)	R _p (k Ω cm ²)	Corrosion Rate (mmpy)
CR1	-546	593.5	106.05	-2.59	2.550	15277	0.029
CR2	-576	648.0	99.56	-2.30	5.004	7488	0.057
CR3	-620	4862.1	123.00	-2.12	7.650	6809	0.088
CR4	-656	1193.0	120.50	-2.07	8.490	5592	0.097

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