

عنوان مقاله:

ANN modeling of anticorrosive performance of paint systems on steel

محل انتشار:

هفتمین کنفرانس بین المللی مهندسی مواد و متالورژی و دوازدهمین همایش ملی مشترک انجمن مهندسی متالورژی و مواد ایران و انجمن ریخته گری ایران (سال: 1397)

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خلاصه مقاله:

In this investigation, the corrosion behavior of 1020 steel plates in term of corrosion potential was modeled using the ANN approach. Input variables were the surface pre-treatments, anticorrosive coatings and the time of immersing in the corrosive environment. feedforward multi-Layer perceptron neural network was used. The reliability and speed of Levenberg–Marquardt Scaled conjugate gradient, and Resilient backpropagation algorithms were also compared, and it was concluded that the Levenberg–Marquardt is the most accurate and the fastest algorithm for modeling. The results showed that the estimated corrosion potentials of samples are in good agreement with the actual data.

کلمات کلیدی:

Corrosion Potential, Coating, Artificial Neural Network (ANN), Modeling

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