

Application of Neuro-Fuzzy Technique for Optimizing the PVC Membrane Sensor

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Abstract : In this study, the adaptive neuro-fuzzy inference system (ANFIS) was applied to obtain the membrane composition model affecting the potential response of our reported polymeric PVC sensor for determining the titanium (III) ions. The performance statistics of the artificial neural network (ANN) and linear regression models for potential slope prediction of membrane composition of titanium (III) ion selective electrode were compared with ANFIS technique. The results show that the ANFIS model can be used as a practical tool for obtaining the Nerntian slope of the proposed sensor in this study.

Keywords : adaptive neuro fuzzy inference, PVC sensor, titanium (III) ions, Nerntian slope

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