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# The Direct Electrochemical Synthesis of Ti(II), Fe(II), Cd(II), Sn(II), and Pb(II) Complexes with N, N´-Bis(Salicylidene)-o-Phenylenediamine

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**Abstract:** The electrochemical oxidation of anodic Ti, Fe, Cd, Sn, and Pb (=M) into acetonitrile solutions of N,N'-bis(salicylidene)-o-phenylenediamine [Saloph$H_2$] gives the corresponding M(Saloph) complexes in high yield. The mechanism of the electrochemical reactions is discussed. Saloph$H_2$ forms complexes (1:1 molar ratio) with titanium, iron, cadmium, tin, and lead ions. The complexes have been characterized by elemental analyses, molar conductivity measurements, and infrared and electronic spectral data. The Saloph$H_2$ complexes of iron(II) and cadmium(II) have been further identified by $^1$H-NMR and mass spectra.

**Key Words:** Electrochemical Synthesis, N, N'-Bis(Salicylidene)-o-Phenylenediamine, metal complex

Keywords
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