

Miscellaneous

- Title:** New BESA Insoluble Anode for Electrolysis in Aqueous Solutions
- Paper presented at:** Milton E. Wadsworth (IV) International Symposium on Hydrometallurgy; August 1st-5th, 1993; Salt Lake City, Utah, U.S.A.
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- Abstract:** The problem relating to the use of insoluble anodes in the acidic and highly aggressive environment has still not been definitely solved, and it is therefore a recurring subject of discussion.
The fields of application, in which insoluble anodes play a fundamental role, are mainly in the electrolytic extraction of metals, in the cathodic protection of oxidized halogenated salt.
Based on the foregoing, B.U.S. Engitec Servizi Ambientali (BESA) developed an electrode suitable for the use in the above mentioned system. The basic component of the BESA anode is a bimetallic wire made of a Copper rod (core) covered by a thin layer of valve metal, to be chosen between Tantalum (Ta) and Niobium (Nb). The wires, coated with suitable catalyst (PbO₂, Pt or others) are inserted in a plastic frame and fixed to a current feeder by means of a screw ensuring an optimal contact.
Experimental data on the operating condition such as kind of electrolyte, current density, electrode potential, corrosion test and field of possible application are described.