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The invention relates to the electrode obtaining and may be used in the electrochemistry, in the industrial electrolysis of the alkaline solutions, in galvanotechnics and processes for sewage treatment.

Summary of the invention consists in that the electrode contains metal substrate of titanium or alloys thereof and an active layer deposited thereon in the form of porous cobalt-nickel-boron alloy, with inclusion into its composition of molybdenum and/or wolfram and/or rhenium.

The process for electrode obtaining consists in the deposition onto the metal substrate of titanium or alloys thereof, preliminarily treated with hydrids, of an active layer in the form of porous cobalt-nickel-boron alloy from the solutions containing cobalt and nickel sulphates, salt of Seignette, $Mo^{7+}$ and/or $W^{7+}$ and/or $Re^{7+}$ salts, thallous nitrate and dimethylaminoborane, in the following component ratio g/l:

| | |
|---|---|
| nickel sulphate | 5…10 |
| cobalt sulphate | 10…20 |
| salt of Seignette | 30…40 |
| $Mo^{7+}$ and/or $W^{7+}$ and/or $Re^{7+}$ salts | 15…20 |
| Dimethylaminoborane | 1…3 |
| thallous nitrate | 0,001…0,002, |

the deposition is carried out at the temperature of 50…70°C and pH 6,6…10,0, at a ratio between the electrode surface and the solution volume of 1:(2…3), with boron subsequent leaching from the formed coat by anodic treatment, at a current density of 1…2 A/$dm^2$ during 10…15 min, in NaOH solution with pH 10…12, in the presence of oxidant, at the same time as oxidant is used hydrogen peroxide and potassium permanganate, in the following component ratio, g/l:

| | |
|---|---|
| sodium hydroxide | 50…100 |
| 33% hydrogen peroxide, ml | 30…50 |
| potassium permanganate | 5…10. |

Claims: 3