

Title (en)
Galvanic process with analysis of the electrolytic bath through solid phase extraction

Title (de)
Galvanisches Verfahren mit Analyse des Elektrolytbads durch Festphasenextraktion

Title (fr)
Procédé galvanique avec analyse du bain électrolytique par extraction en phase solide

Publication
EP 1932953 B1 20121114 (DE)

Application
EP 06025569 A 20061211

Priority
EP 06025569 A 20061211

Abstract (en)
[origin: EP1932953A1] The method for the galvanic deposition of a metal coating from an electrolyte bath, in which the concentrations of two components of the electrolyte bath are monitored, comprises removing a sample from the electrolyte bath, feeding the sample to a column for solid phase extraction, subjecting the column to a washing process with a first eluent, eluting the two components from the column by a second eluent, and determining the concentrations of the components in the obtained eluate by photometry, polarography and refractometry without separating the components from each other. The method for the galvanic deposition of a metal coating from an electrolyte bath, in which the concentrations of two components of the electrolyte bath are monitored, comprises removing a sample from the electrolyte bath, feeding the sample to a column for solid phase extraction, which contains a solid sorption agent, subjecting the column to a washing process with a first eluent, where the two components remain in the column and unwanted components are eluted from the column, eluting the two components from the column by a second eluent, and determining the concentrations of the two components in the obtained eluate by photometry, polarography and refractometry without separating the components from each other. The supply of the eluents to the column takes place in the same or opposite direction for the supply of the sample. The process takes place in a sequence at a regular time intervals of 1 minute to 10 hours. The monitoring of the concentration of the two components in combination is carried out with a dosing system, which supplies an appropriate fresh quantity of the component depending upon the result of the concentration regulation. Before feeding the sample, the column is conditioned with methanol or an acid solution and then equilibrated with water.

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Citation (examination)
• MUSTAFA TUZEN; MUSTAFA SOYLAK: "Chromium speciation in environmental samples by solid phase extraction on Chromosorb 108", JOURNAL OF HAZARDOUS MATERIALS, 2006, pages 266 - 273
• SITKI BAYTAK; A. REHBER TÜRKER: "Determination of lead and nickel in environmental samples by flame atomic absorption spectrometry after column solid-phase extraction on Amborsorb-572 with EDTA", JOURNAL OF HAZARDOUS MATERIALS, 2006, pages 130 - 136
• VALERIE CAMEL: "Solid phase extraction of trace elements", SPECTROCHIMICA ACTA PART B, 2003, pages 1177 - 1233

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