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Notes

Qualitative Analysis for Trace Amounts of Organocompounds Derived from Constitutional Materials of Electrolytic Compartments During Generation of an Acidic Electrolyzed Water

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Details

Abstract

The solution produced in the anolyte compartment by the electrolysis of a dilute NaCl solution, *ie.*, acidic electrolyzed water was analyzed by a gas chromatograph/mass spectrometer (GC/MS). As a result, organochlorinated compounds that are derived from constitutional materials of electrolytic compartments, and silicone compounds originated from O-ring of electrolytic compartments were detected. We examined the surfaces of ABS resin and a diaphragm, which were immersed in acidic electrolyzed water for 4 weeks, by scanning electron microscopy, slight changes of the surfaces were observed. It is likely that acidic electrolyzed water that contains free chlorine deteriorates constitutional materials of electrolytic compartments.

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