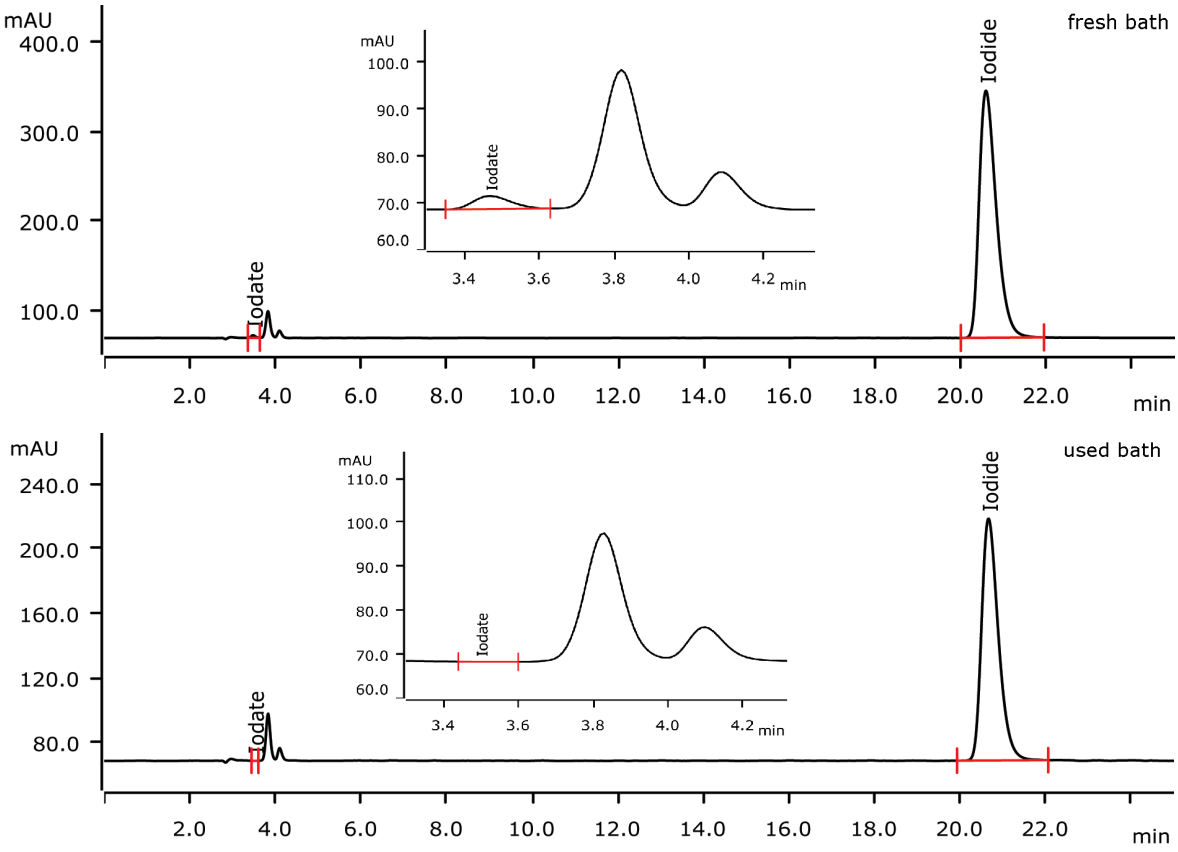
IC Application Note U–65

# Iodate and iodide in an electroplating bath applying direct UV/VIS detection




The analysis of iodate and iodide in used electroplating baths is a demanding task due to the high content of other ions. Iodate is used as a stabilizer for the bath and needs to be checked for proper electroplating. The use of a sodium chloride eluent, the Metrosep A Supp 5 - 250/4.0 column and direct UV/VIS allows the analysis of these samples without interference.

## Results

| Diluted sample | spiked | found | Recovery |
|---|---|---|---|
| Iodate | 2.0 mg/L | 1.9 mg/L | 95% |
| Iodide | 4.0 mg/L | 43.2 mg/L | 101% |

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## Sample

Fresh resp. used nickel electroplating bath

## Sample preparation

Dilution 1:20

## Columns

| | |
|---|---|
| Metrosep A Supp 5 - 250/4.0 | 6.1006.530 |
| Metrosep A Supp 4/5 Guard/4.0 | 6.1006.500 |

## Solutions

| | |
|---|---|
| Eluent | 10 g/L sodium chloride |

## Parameters

| | |
|---|---|
| Flow rate | 0.7 mL/min |
| Injection volume | 20 µL |
| $P_{max}$ | 15 MPa |
| Recording time | 25 min |
| Column temperature | 55 °C |
| Wavelength | 230 nm |

## Analysis

Direct UV/VIS detection

## Instrumentation

| | |
|---|---|
| 940 Professional IC Vario ONE | 2.940.1100 |
| 944 Professional UV/VIS Detector | 2.944.0010 |
| 858 Professional Sample Processor | 2.858.0020 |





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