

NEXTChem Process Analyzers, Inc.

On-Line Solder (Tin/Lead)

Industry: Semiconductor and Metal Plating

Sample Filtration is eliminated, in samples with high solids. For samples requiring dilution ≤ 2 mm particles can easily be handled. For non-dilution samples ≤ 6 mm particles pose no problem. No other system can match this rugged design.

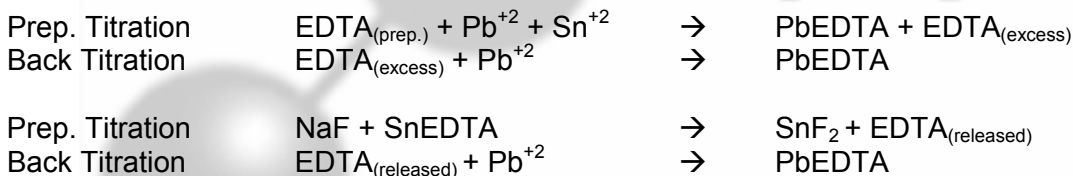
NEXTChem Analyzers can provide accuracy only matched by the most precise laboratory equipment. Our reagent precision pumps deliver titrants with ± 0.001 mL reproducibility. Potentiometric analyses are utilized thus eliminating errors caused by electrode drift.



Analysis of Solder (Tin/Lead)

Solder is determined by the back titration of excess EDTA with lead nitrate. The endpoint is found with a lead (ISE) Ion Selective Electrode.

Reactions:



Reagents:

30% hexamine, 0.05 M EDTA, 0.05 M lead nitrate, 0.1 M sodium fluoride

Sensor:

Lead Ion Selective Electrode

Detection Limits / Interferences:

Dilution: 560,000 – 112 ppm
Non-Dilution: 1066 – 0 ppm (lower detection limit 5 ppm)
Interferences: Zn^{+2} , Pb^{+2} , Cu^{+2} , Ni^{+2} , Al^{+3}

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