

# **NEXTChem Process Analyzers, LLC.**

## **On-Line SC1 Clean**

### **Industry: Semiconductor**

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All wetted surfaces, in the analyzer are made of high purity teflon. Automated sample dilution is used for the measurement of highly concentrated samples commonly found in many semiconductor applications. The analyzer is housed within a white polypropylene or CPVC clean room enclosure.



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

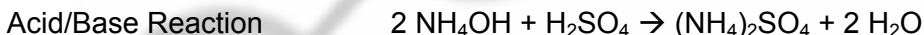
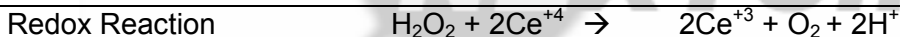
### **Analysis of SC1 Clean**

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The concentration of Hydrogen Peroxide is determined by a redox titration. Ceric sulfate is the titrant and the endpoint is determined with an ORP electrode. The concentration of Ammonium Hydroxide is determined by an acid/base titration. The titrant is sulfuric acid and the endpoint is found with a glass pH electrode.

### **Reactions:**

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### **Reagents:**

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0.1 N Ceric Sulfate w/ 2N Sulfuric Acid, 1 N Sulfuric Acid, 0.1 N Sulfuric acid

### **Sensor:**

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ORP Electrode 120 mm, Glass pH Electrode 120 mm

### **Detection Limits / Interferences:**

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Dilution: 30% – 0.024%

Non-Dilution: 233 – 0 ppm (lower detection limit 2 ppm)

Interferences: Other Bases / Other Redox Agents

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