

# Analysis of contamination

## Analysis method for contamination of foreign matter

### Observation + Foreign Matter Collection + Analysis + Report Generation

Measures against foreign matters, which is an eternal theme in electronic devices, foods, and various other fields. In order to identify the source of foreign matter and solve the problem, It is important to select the most appropriate analytical method and how to sample small foreign matters.

#### 1 Observation (Optical microscope, etc.)

Observe foreign matters using a microscope, optical microscope, etc. to check their shape and condition. Select the most appropriate analytical method by determining whether the system is **organic (FT-IR component analysis)** or **inorganic (SEM-EDX)**.

#### 2 Foreign matter collection (precision manipulator)

A few  $\mu\text{m}$  of foreign matters that are difficult to collect by human hands are sampled.

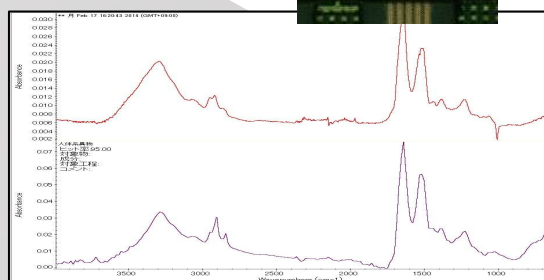
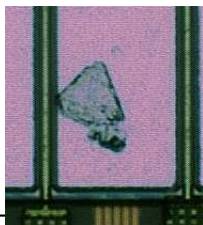


#### 3 Analysis of organic materials

Analyze components by using FT-IR. Identify molecular structures from the infrared absorption of organic material.

##### Example

The result suggests an amide group and is presumed to be caused by the human body.

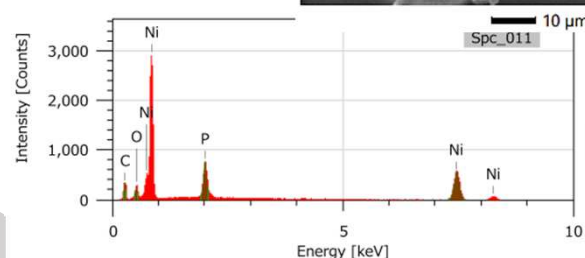
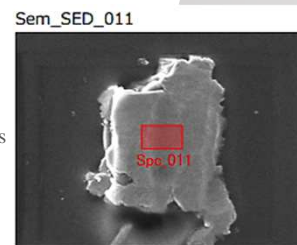


#### 4 Analysis of inorganic materials(metals)

Observe with SEM-EDX.

##### Example

Element P and Ni detected  
Identify electroless nickel plating scraps  
and object foreign matters



We pay close attention to the details of consultations and requests with the first priority on strict adherence. In particular, a confidentiality agreement shall be entered into in the event of a request.