

Key Word: Thin Film, Plating, Thin Film FP Method


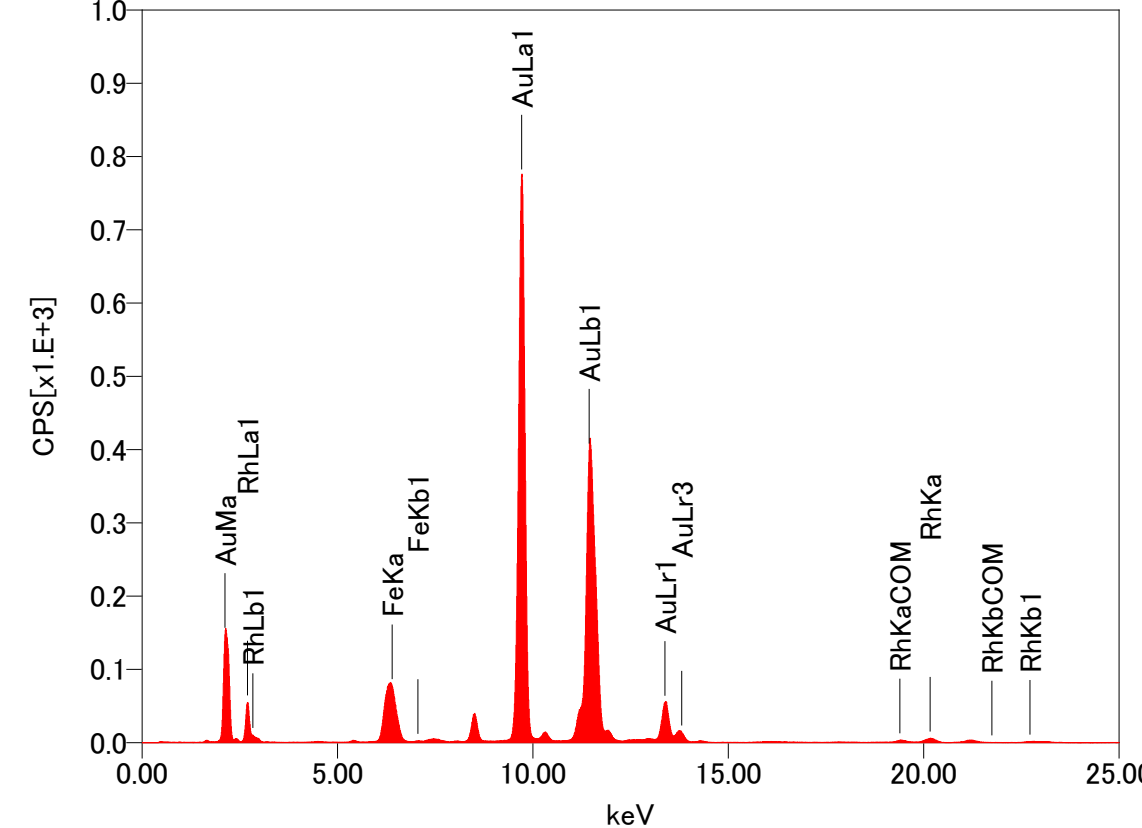
## Film Thickness by Thin Film FP Method

### ● Introduction


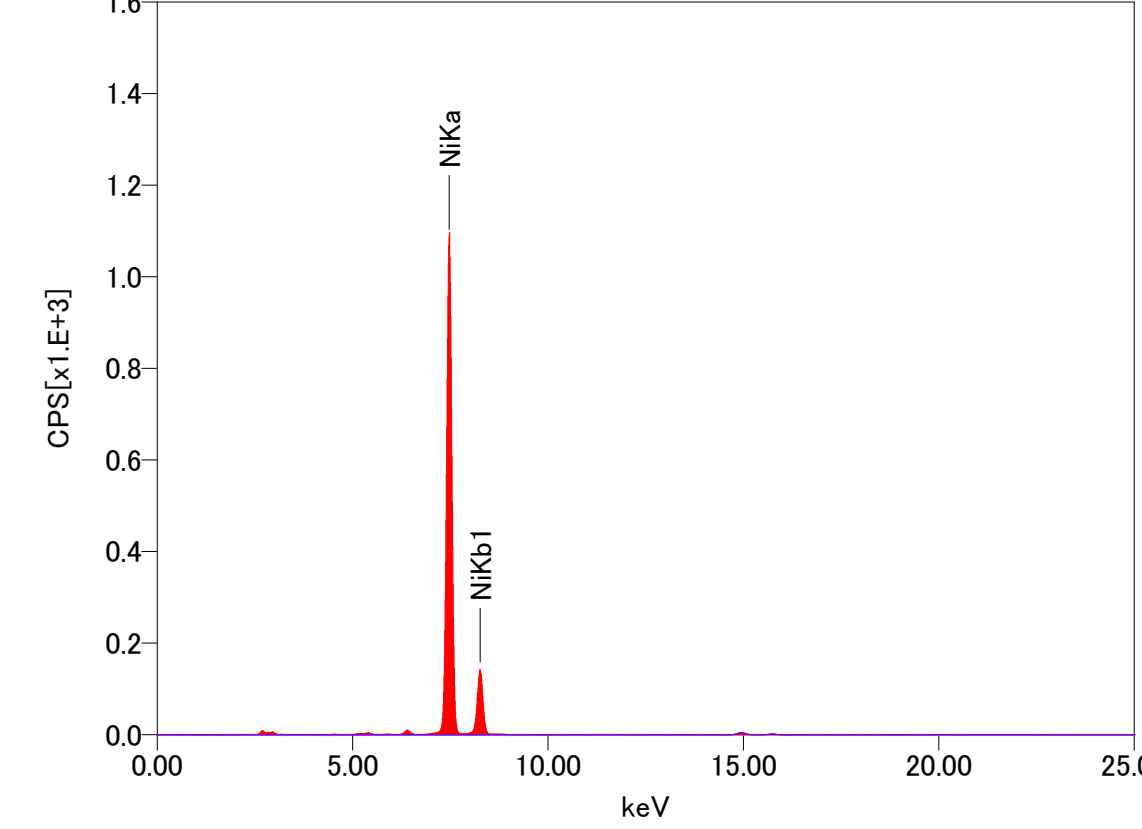
Surface treatments such as plating are applied to parts to impart corrosion resistance, decoration, and functionality. Since the thickness of these films relates to product characteristics, quality, and production cost, it is important to control. JEOL's X-ray fluorescence spectrometer can perform non-destructive measurement of film thickness (up to 5 layers). Using our advanced FP method, standards are not required.

### ● Thin Film Measurement Examples


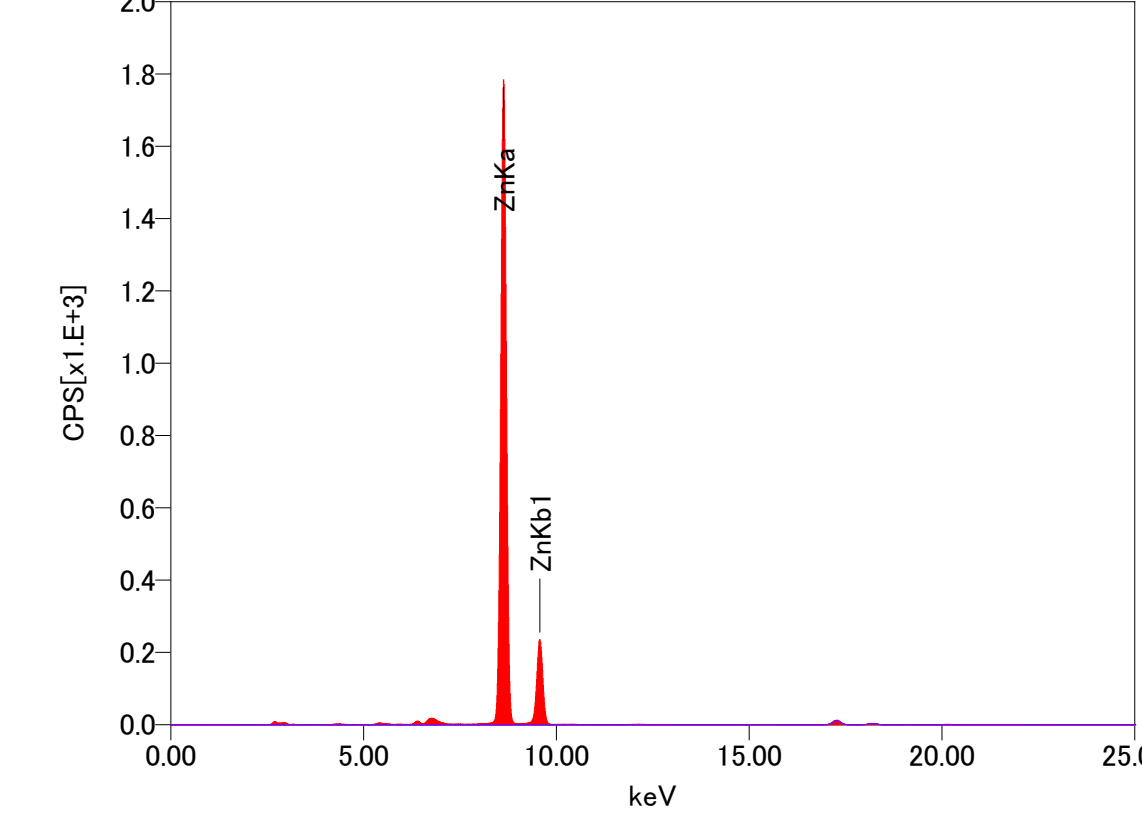
#### Au Plating

<p>Sample</p>  <p>Measurement Condition</p> <p>Voltage: 50 kV Collimator Dia.: 0.9 mm Atmosphere: Air Measurement Time: 60 Sec.</p>	<p>Spectrum</p> 	<p>Analysis Result</p> <table border="1"> <thead> <tr> <th>Certified Value (μm)</th> <th>Analysis Result (μm)</th> </tr> </thead> <tbody> <tr> <td>1.99</td> <td>2.06</td> </tr> </tbody> </table>	Certified Value (μm)	Analysis Result (μm)	1.99	2.06
Certified Value (μm)	Analysis Result (μm)					
1.99	2.06					


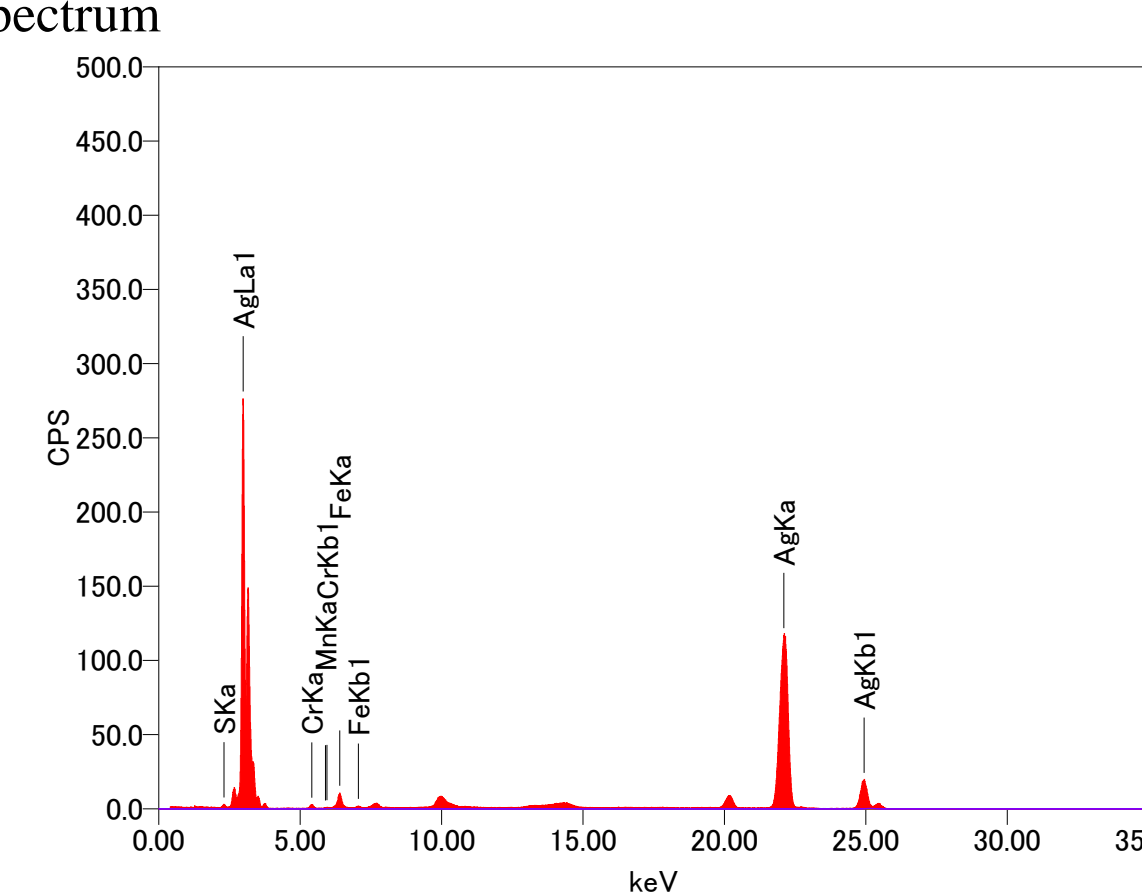
#### Ni Plating

<p>Sample</p>  <p>Measurement Condition</p> <p>Tube Voltage: 50 kV Collimator Dia.: 0.9 mm Atmosphere: Air Measurement Time: 60 Sec</p>	<p>Spectrum</p> 	<p>Analysis Result</p> <table border="1"> <thead> <tr> <th>Certified Value (μm)</th> <th>Analysis Result (μm)</th> </tr> </thead> <tbody> <tr> <td>0.99</td> <td>1.10</td> </tr> </tbody> </table>	Certified Value (μm)	Analysis Result (μm)	0.99	1.10
Certified Value (μm)	Analysis Result (μm)					
0.99	1.10					

#### Zn Plating

<p>Sample</p>  <p>Measurement Condition</p> <p>Tube Voltage: 50 kV Collimator Dia.: 0.9 mm Atmosphere: Air Measurement Time: 60 Sec</p>	<p>Spectrum</p> 	<p>Analysis Result</p> <table border="1"> <thead> <tr> <th>Certified Value (μm)</th> <th>Analysis Result (μm)</th> </tr> </thead> <tbody> <tr> <td>2.61</td> <td>2.81</td> </tr> </tbody> </table>	Certified Value (μm)	Analysis Result (μm)	2.61	2.81
Certified Value (μm)	Analysis Result (μm)					
2.61	2.81					

#### Ag Plating

<p>Sample</p>  <p>Measurement Condition</p> <p>Tube Voltage: 50 kV Collimator Dia.: 0.9 mm Atmosphere: Air Measurement Time: 60 Sec.</p>	<p>Spectrum</p> 	<p>Analysis Result</p> <table border="1"> <thead> <tr> <th>Certified Value (μm)</th> <th>Analysis Result (μm)</th> </tr> </thead> <tbody> <tr> <td>8.97</td> <td>8.89</td> </tr> </tbody> </table>	Certified Value (μm)	Analysis Result (μm)	8.97	8.89
Certified Value (μm)	Analysis Result (μm)					
8.97	8.89					

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◆ Overview →



◆ Mechanisms →

