

## Technology Comparisons

	<b>Technology</b>				
<b>ATTRIBUTE</b>	<b>XRF</b>	<b>ICP</b>	<b>AAS</b>	<b>Arc-Spark</b>	<b>Spectrolaser</b>
<b>Material Types</b>	All	All	All	Conductive only	All
<i>Element Limitations</i>	Sensitivity decreases for light elements	Most not O, H, C, Cl, F an S	Most not O, H, C, F, Cl and S	Most Cl weak	Most Can do O, H, C and light elements
<i>Analysis Time</i>	Medium typically minutes	Long acid extraction required	Long acid extraction required	Short seconds	Short seconds
<i>sample preparation</i>	low	high	high	low	low
<i>Scanning and imaging?</i>	Only in specialist instruments	No	No	No	Yes ( <i>Target Range</i> )
<i>Laboratory services, gas, water</i>	Varies, can use buffer gas and/or vacuum	Yes	Yes	Yes	None Option of buffer gas