

6.2E: Arcs and Sparks

Arc and spark devices can be used as atomization sources for solid samples. Figure 6.2E. 8 illustrates the setup for an arc device. A high voltage applied across a gap between two conducting electrodes causes an arc or spark to form. As the electrical arc or spark strikes the positively charged electrode, it can create a “puff” of gas phase atoms and emission from the atoms can be measured. The arc also creates a plasma between the two electrodes. Depending on the nature of the solid material to be measured, it can either be molded into an electrode or coated onto a carbon electrode.



Figure 6.2E. 8. Illustration of an arc atomization source with a plasma (shown in blue). From: <http://www.asdlib.org/learningModules/AtomicEmission/index.html>

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