

# Auger Electron Spectroscopy

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## Basic Principles

- Purpose of AES as a surface analysis technique
- General process of finding binding energy from kinetic energy
- Some comparison with XPS

## Auger Process

- ~~Process~~ K, L, and M shells
- Process of electron ejection

## Instrumentation

- Instrumental set up, specifically cylindrical mirror analyzers & hemispherical analyzers
- Electron sources

## Applications

- Elemental analysis, depth profiling, etc.

## Advantages

- Ability to determine fine features, high spatial resolution, rastering to collect image
- Simultaneous sputtering & data collection

## Limitations

- Drawbacks including detection limits

Advantages & Limitations will compare AES to XPS

I feel some of the theory & calculations associated w/ AES can be complicated. My main goal is to give a simple overview with enough information to understand the technique without getting bogged down in theory & technical details