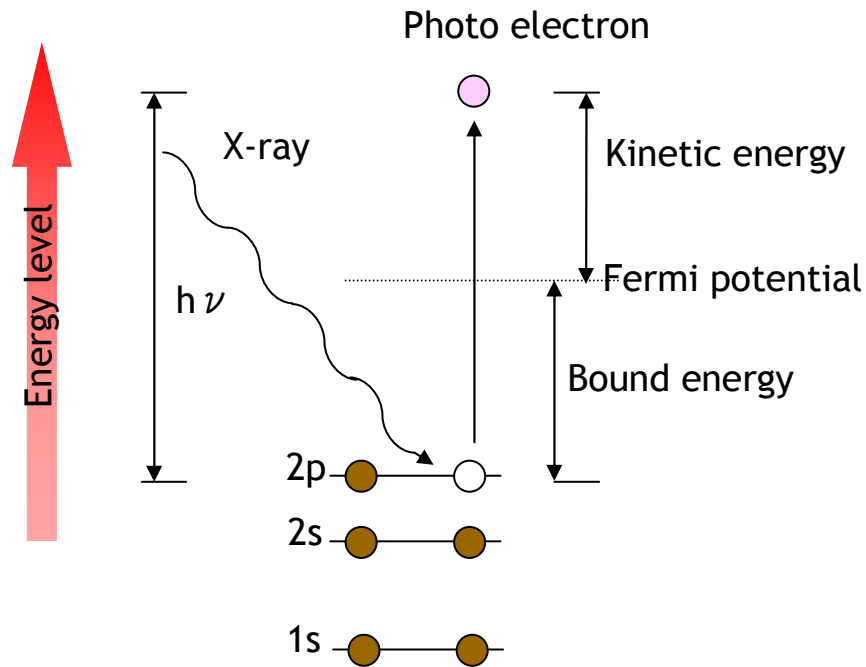


# XPS: X-ray Photoelectron Spectroscopy

\* Another name: ESCA (Electron Spectroscopy for Chemical Analysis)

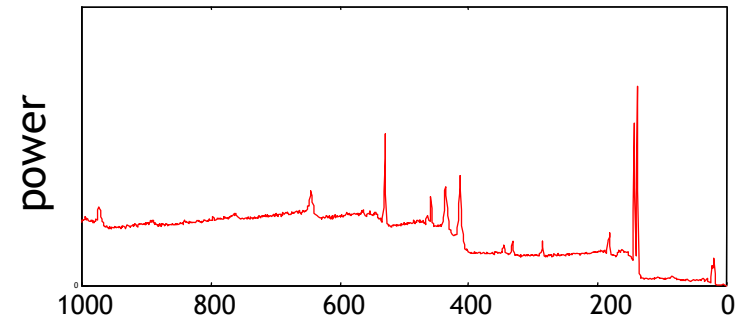
## Technology



Energy of the photo electron emitted

Electrostatic semi sphere spectroscope (Energy splitting)

Spectrum - photo electron



Bound energy of the electron (eV)

[ Bound Energy of the electron, within the specimen ]

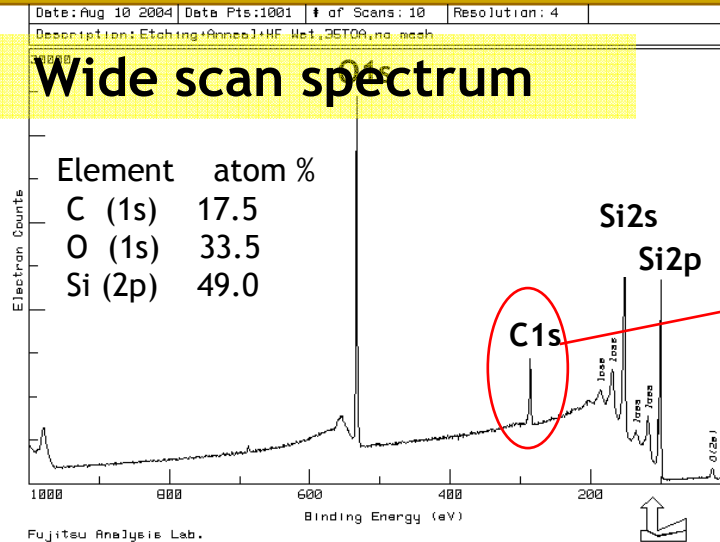
$$= h\nu \text{ (Energy of X-ray)} - \text{( Kinetic energy of the photo electron emitted)}$$

# Example

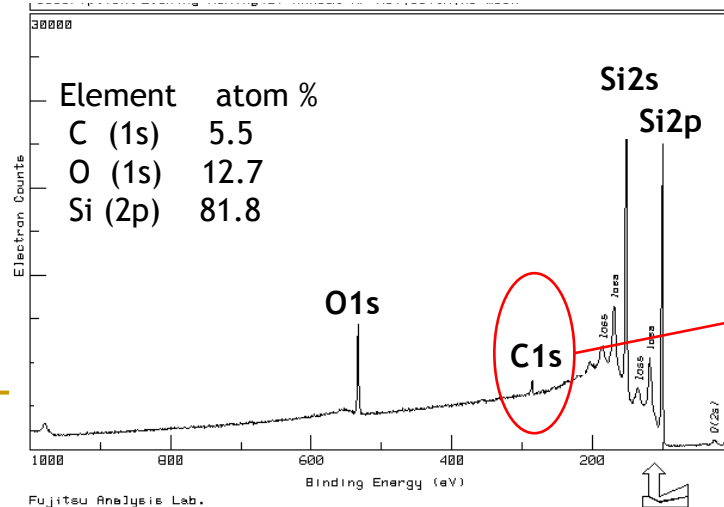
## Surface of the Silicon wafer

### Qualitative / semi quantitative analysis

Process A



Process B



### Analysis of Chemical bond

