**FID Mechanics:**

An FID consists of a hydrogen/air flame and a collector plate. The effluent from the GC column passes through the flame, which breaks down molecules and produces ions. The ions are collected on a biased electrode and produce an electrical signal. The FID is extremely sensitive with a large dynamic range, its only disadvantage is that it destroys the sample. This detector is well suited for analysis of organic molecules and solvents.

**GC Solvents of Choice:**

1. Dichloromethane
2. Methanol
3. Acetonitrile
4. Hexanes
5. Diethyl Ether