## **Mass spectrometry**

Electron impact Mass spectrometry

Bombard your molecules with high energy electrons

e<sup>-</sup>
70 eV

M \*+ 2 e<sup>-</sup>
(BANG!)

- 70 eV = 1614 kcal/mol
  - contrast with energy from IR (1-10 kcal/mol) or NMR (0.2 cal/mol)
  - typical C-C bond = 100 kcal/mol
- Point: lots of energy in play here
  - you can eject electrons, break bonds, etc.