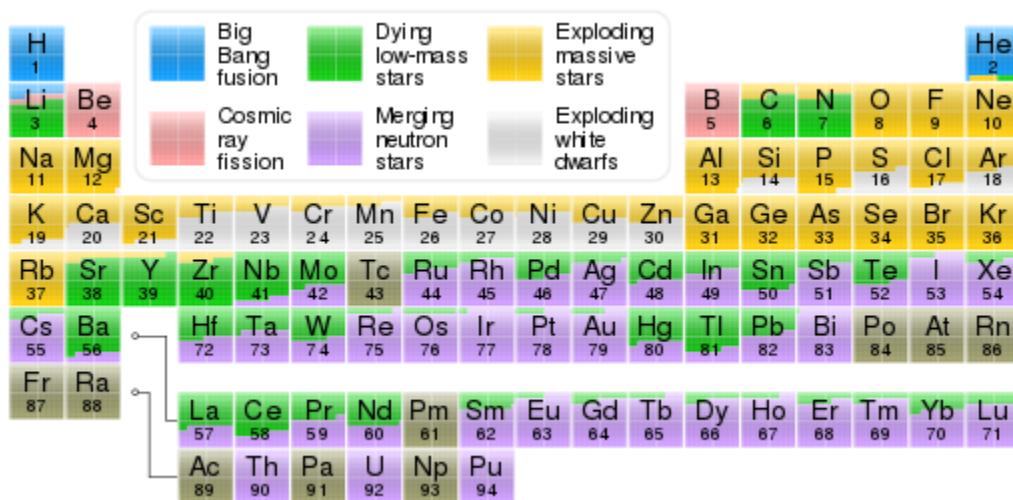


# 3 Huge Results, 10/16/2017

1. Gravitational waves “confirmed” with electromagnetic counterpart
2. GRBs ( $dt < 1s$ ) are due to binary neutron star mergers, and are beamed
3. Neutron star explosions (kilonova) produce the Universe’s heavy elements ( $> Fe$ )



## 3 Key Papers (further reading):

**Chornock et al.**, ApJL, "The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/Virgo GW170817. IV. Detection of Near-infrared Signatures of r-process Nucleosynthesis with Gemini-South"

**Tanvir et al.**, ApJL, "The Emergence of a Lanthanide-rich Kilonova Following the Merger of Two Neutron Stars"

**Troja et al.**, Nature, "The X-ray counterpart to the gravitational-wave event GW170817"