**HOFMANN TREE #1**

**Hofmann** rule **(1851)**, **Hofmann** elimination **(1881)**
**Hofmann** rearrangement **(1871)**, **Hofmann-Loffler-Freytag** reaction **(1883/1909)**

- **Karl von Auwers** (Berlin, 1885)
  - **Thorpe** reaction **(1904)**
    - **Cahn-Ingold-Prelog** rules **(1951)**
      - **More O'Ferrall-Jencks** diagram **(1970/1977)**
    - **Bergman** cyclization **(1972)**
      - **Sharpless-Jacobsen** hydroxylation **(1988/9)**
    - **Baker-Nathan** effect **(1935)**
  - **Ziegler-Natta** polymerization of hydrocarbons using organometallic catalysts **(1955/6)**
  - **Wittig** rearrangement **(1942)**
    **Wittig** reagent
    **Wittig** reaction **(1954)**
    - **Kaptein-Closs** rules **(1969)**
    - **Schlosser** modification **(1969/1972)**
- **Schotten-Baumann** reaction **(1884/6)**
- **Wohl** degradation **(1893)**
- **Riemer-Tiemann** reaction **(1876)**
  - **Daniel Vorlander** (Halle, 1890)
    - **Staudinger's** ketene **(1905)**
      **Staudinger** reaction **(1919)**
      macromolecular (polymer) chemistry
      - **Leopold Ruzicka** polymethylenes; higher terpenes
        - **Paterno-Buchi** reaction **(1909/1954)**
        - **Eschenmoser's** salt **(1971)**
        - **Grob** fragmentation **(1969)**
  - **Julius Stieglitz** (Berlin, 1889)
    - **Hermann Irving Schlesinger** (Chicago, 1905)
      - **Herbert Charles Brown** reduction of keto groups to alcohol groups using sodium borohydride **(1939)**, hydroboration reactions **(1947+)**
        - **Midland** reagent **(1979)**
- **Sir William Crookes** Discovery of element 81, thallium **(1861)**
- synthesis of mauveine **(1856)**
  **Perkin** reaction **(1868)**
  **Perkin** rearrangement **(1870)**
  - **Frederick S. Kipping** (Munich, 1887)
    - **Lapworth** cyanohydrin mechanism
      **Lapworth** reaction **(1903 - 1904)**
      - **Harries** ozonolysis reaction **(1905)**

© Dr. John Andraos, 2000