

- This new design of the Periodic Table is the only one where it is possible to show easily the diagonal similarities: Li - Mg, Be - Al, and B - Si
- In this Table there is no need to give numbers to the groups which created a problem between Europeans, North Americans, and IUPAC. In this design the groups are:
  - Typical metals [the first three groups]
  - Less typical metals
  - Transition metals [three groups: those with horizontal similarities, vertical similarities, and both horizontal and vertical similarities (Platinum Group Metals)]
  - Inner transition metals [two groups]
  - Nonmetals [two groups]
  - Metalloids.
- A new term “Less Typical Metals” was introduced to stress the different electronic structure of this group with respect to the Typical Metals
- The Table was first published in black and white in the following papers
  - F. Habashi, Rare Earth Metals and Their Position in the Periodic Table, pp. 47-52 in *Proc. Rare Metals 90*, edited by Z. Kouzuka, T. Oki, K. Morinaga, and Y. Ueda, International Symposium on Processing of Rare Metals, Osaka, Japan 1990.
  - F. Habashi, Reactive Metals and Their Position in the Periodic Table, pp. 1279-1286 in *Light Metals 1992*, editor E. R. Cutshall, The Minerals, Metals, Materials Society, Warrendale, PA 1992.
  - F. Habashi, The Platinum Metals and Their Position in the Periodic Table, *Can. Chem. News* **44** (3), 17-19 (1992).
  - F. Habashi, Electrode Potentials and the Periodic Table, *Bull. Electrochem. (India)* **9** (1112), 554-559 (1993).
  - F. Habashi, Aluminum and Its Position in the Periodic Table, *Education Chemistry (Bombay)* **11** (2), 18-24 (1994).
  - F. Habashi, A New Look at the Periodic Table, *Interdiscipl. Science Rev.* **22** (1), 53-60 (1997).
- The Table was first published in color with full explanations in the book F. Habashi, *Metals from Ores. An Introduction to Extractive Metallurgy*, Métallurgie Extractive Québec, Sainte-Foy, Québec 2003, 472 pages. The choice of color in the Periodic Table has significance which is a useful pedagogical tool.
  - The **Typical Metals** and the **Less Typical Metals** have the same color but in different shades
  - Similarly the two groups of **Nonmetals**, the three groups of the **Transition Metals**, and the two groups of the **Inner Transition Metals** - - each group has the same color but in a different shade
  - The **Metalloids** have a distinct color