

A NEW CLASSIFICATION PRINCIPLE: THE PERIODIC SYSTEM OF FUNCTIONAL GROUPS, PERFLUORINATED PARAELEMENTS

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By applying Grimm's hydride displacement law to other elements of the periodic system, new element-groups result which show an element-like behaviour and should therefore be termed *paraelements*. By means of these element displacements such different groups as the 'pseudo-halogens' may be correlated with perfluoroorgano groups and also derived. As the element displacement procedure may be applied afresh to each paraelement it is possible to obtain higher derivative paraelements. They represent functional groups and can be incorporated without difficulty into the existing periodic system. It is also possible to exchange elements and paraelements for one another without any essential change in the chemical behaviour or structures of the pairs of compounds involved. It is thus possible to bring about a smooth transition from typical inorganic to purely organic compounds. The consequences of this concept for the synthesis of new perfluorinated compounds are discussed.