

Abstract Submitted
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A Method for Calculation of the Upper Limit of Mendeleev's Periodic Table ALBERT KHAZAN — 40 years ago some scientists claimed that elements heavier than No.110 are impossible. The technics got much progress in the last years: element 118 has already been registered. Now, the researchers of Joint Inst. for Nuclear Research (Dubna, Russia) claim that the Periodic Table will end with element 150. However they do not provide theoretical proofs to this claim, because the stability limits of electronic shells they calculated by means of Quantum Mechanics do not answer this question in exact. In contrast, I focused onto the contents of chemical compounds along the Table. The used method is as follows. First, it was found that, given any chemical compound, the contents of any element in it (per 1 gram-atom) is described by the equation of an equilateral hyperbola $Y=K/X$. Then the scaling coefficient was deduced for the hyperbolas, thus the atomic mass of the last (heaviest) element, 411.66, was found as the abscissa of the ultimate point of the arc drawn by the tops of the hyperbolas. With it, the number of the last element, 155, was found as a consequence. See: Khazan A. Upper Limit in Mendeleev's Periodic Table — Element No.155. Svenska fysikarkivet, 2009.

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