Abstract Submitted
for the APR10 Meeting of
The American Physical Society

The Last Element of Mendeleev's Periodic Table ALBERT KHAZAN — Despite much achievements of the synthesis for super-heavy elements (10 new elements were obtained during the last 25 years), the experts in Mendeleev's Periodic Table have not answered the most fundamental question: where the Table ends? The calculations produced on the basis of Quantum Mechanics (the physical conditions in micro-scales) do not not answer this question till now. In my study of chemical compounds, I focused onto the physical conditions observed in macro-scales (the subjects of the regular physics and chemistry). Thus, the Law of Hyperboles was discovered in the Periodic Table: given any chemical compound, the contents of any element in it (per 1 gram-atom), including the contents of unknown elements, whose atomic masses can be set up arbitrarily, is described by the equation of a equilateral hyperbola Y=K/X. The tops of all the arcs are distributed along a real axis crossing the line Y=1 in the point of abscissa 411.66, which manifests the actual atomic mass of the last (heaviest) element of the Periodic Table: its location is Period 8, Group 1; its atomic mass is 411.66, its number is 155 (Khazan A. Upper Limit in Mendeleev's Periodic Table — Element No.155. Svenska fysikarkivet, 2009).

Albert Khazan

Date submitted: 28 Dec 2009 Electronic form version 1.4