# Can strange quark matter fill the "nuclear desert"?

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Between the heaviest atomic elements (nuclei) and neutron stars, which are giant nuclei, lies a vast unpopulated "nuclear desert". We argue that this void may actually be filled with strange quark matter. Here, the fluxes of candidates for strangelets measured in cosmic ray experiments on different depths of atmosphere are investigated. The flux of strangelets reaching the Earth atmosphere as a function of mass is estimated and compared with astrophysical limit. The observed power-like mass spectrum continue the abundance distribution of normal nuclei in the Universe, cf. Figure 1. We discuss the possible growth mechanism of strangelets in sources of production, which results in such power-law distribution [1].

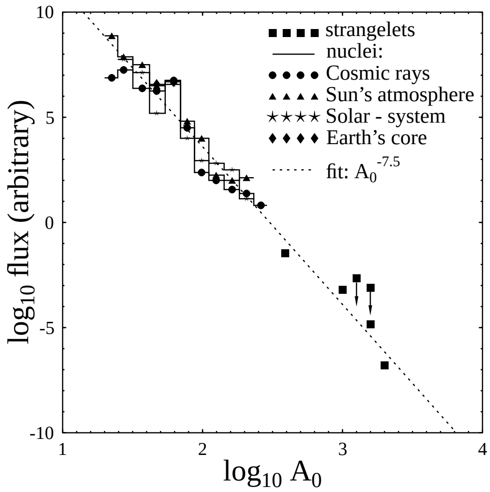


Figure 1: Comparison of the estimated mass spectrum $N(A_0)$ for strangelets with the known abundance of elements in the Universe (points with arrow show the uper limit).

## References

[1] G.Wilk and Z.Włodarczyk, *Heavy Ion Physics* **4** (1996) 395; M.Rybczyński, Z.Włodarczyk and G.Wilk, *Acta Phys. Polon.* **B33** (2002) 277.