Hyper Nucleus in the Chain Nuclear Model

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Abstract. The hyper nucleus is a nucleus where one or more nucleons (neutrons) are replaced by "strange" particles like: $\Lambda^{\circ}(u,d,s)$, $\Sigma^{\circ}(u,d,s)$, (u-up, d-down, s-strange, quarks). Experimental data confirmed the existence (for a very short time) of these nuclei with reasonable binding energies. We argue that the chain model is able to explain this stability. These "strange" particles give us the possibility to deeper understand the beta decay, and to approach the weak interaction in the nucleus.

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