

**TEST OF THE DIFFUSION HALO AND THE LEAKY BOX MODEL BY
MEANS OF SECONDARY RADIOACTIVE COSMIC RAY NUCLEI WITH
DIFFERENT LIFETIMES**

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$^{10}\text{Be}/^9\text{Be}$ is the best known and therefore the most commonly used ratio to determine the average density of traversed matter in the Leaky Box Model (LBM) and the Halo size in the Diffusion Halo Model (DHM). A new calculation will be presented including other radioactive Isotops like ^{36}Cl , ^{26}Al and ^{54}Mn , which have different lifetimes. Results will be compared to recent measurements of the corresponding ratios. Unfortunately the production cross sections for the mentioned unstable Isotops are not known well enough to distinguish between the Leaky Box and the Diffusion Halo Model. Further measurements of these cross sections would be therefore usefull.