whereas the same ratio for boron is 5.6, suggesting a resonance level for Mn in the thermal region also.

The fact that the absorption by Co of I neutrons is greater than that of Ag neutrons, shows the presence of a resonance band for Co in the region of the I energy level.

These and other results will appear in more detail.

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## A Remark on the Latitude Effect of Cosmic Rays

New measurements of the cosmic-ray latitude effect[1] show that the latitude, where the effect begins, remains the same in the whole atmosphere. This behavior denotes that the existence of a "critical latitude" is produced, not by atmospheric absorption,[2] but by absence, in the incident radiation, of rather slow rays;[3] they either are deflected by the sun's magnetic field or do not exist at all in the primary spectrum. We wish to call attention to a consequence of this conception, which possibly may permit us to decide, if the hard component, considered here alone, is primary in origin, or secondary—as recently suggested by some authors.[4]

If the component is a secondary one, its latitude effect accompanies that of the primaries and the critical latitude will be the same at *all* depths.

But if the hard rays are themselves primaries, the constancy of the critical latitude is limited to depths $x<E_{\min}/s$ only, where $s$ is the specific ionization and $E_{\min}$ the threshold value of the energy spectrum. Only rays of energies higher than $E_{\min}$ are able to reach to depths $x>E_{\min}/s$ since the maximum range of an ionizing ray of energy $E$ is always $R=E/s$, whatever may be the kind of its energy loss. Therefore, with increasing depth the critical latitude will shift to lower values, nearer the equator, exactly as is shown by the absorption theory. It can be calculated by the well-known equation $E_\lambda=sx$, where $E_\lambda$ is the threshold energy imposed for incoming rays by the earth's magnetic field. Such a shift was observed by Clay[5] for rays which had penetrated more than one atmosphere. If his result could be confirmed definitively, it would prove a primary origin for the hard component.

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