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The effect of anomalous neutron events: new data from the scintillation neutron detectors

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Abstract content

Experiments with the new generation of neutron detectors — the boron-containing scintillators placed inside a standard NM64 type neutron supermonitor — have shown, that the peculiar high-multiplicity neutron events with anomalously prolonged temporal distributions of neutron intensity, which have been observed earlier in a set of neutron monitor installations, are connected with an overload of the gas ionization counters the monitors have been traditionally build on. The new data permit to state, that this overload is caused by production of a multitude of low-energy neutrons in the core region of extensive air showers with the energies above the knee of primary cosmic ray spectrum — the effect, which is incompatible with the standard models of EAS development.

If this papers is presented for a collaboration, please specify the collaboration

Summary

Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olivo, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 4 (HE part 1), pages 7-10

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