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Upper limits on high-energy solar neutrons from satellite-detected flares with the Yangbajing neutron monitor

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Abstract content

The Yangbajing neutron monitor is suitable for observing solar neutrons in association with solar flares due to a location with an altitude of 4,300 m above sea level. Using data of the Yangbajing neutron monitor obtained during 1998 and 2001, we searched for solar neutrons from individual solar flares detected by BATSE and Yohkoh. No signal due to solar neutrons was found in coincidence with those solar flares. The 95 % confidence level upper limits on the integral flux of solar neutrons above 100 MeV were obtained, assuming a power-law index of the energy spectrum is -3,-4 and -5. The derived upper limits are compared with integral fluxes of solar neutrons obtained by past observations using other neutron monitors as well as satellites.

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

the Yangbajing NM 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. 1 (SH), pages 49-52

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