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Powerful nanosecond light sources based on LEDs for astroparticle physics experiments

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Abstract content

Powerful nanosecond light sources based on LED have been developed for using in astroparticle physics experiments. The light sources use either matrixes of ultra bright blue InGaN LEDs or new generation high power LEDs. It is shown that such light sources have light yield of up to 10**11 with very fast light emission kinetics. Described light sources are important for using in calibration systems of Cherenkov and scintillator detectors. The developed light sources are currently used successfully in a number of astroparticle experiments, namely: the TUNKA EAS experiment, the Baikal neutrino experiment, SFERA Cherenkov experiment etc.

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. 5 (HE part 2), pages 1581-1584

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