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The Monitoring System and Detector Stability of COSINE-100[1]
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COSINE-100 is a direct detection dark matter experiment consisting of 106 kg of low-background NaI(Tl) crystal detectors located at the Yangyang Underground Laboratory in South Korea. One of the primary physics goals of COSINE-100 is to search for a WIMP-induced annual modulation signal to confirm or refute DAMA/LIBRA's claim of dark matter discovery. The search for an annual modulation signal requires a thorough understanding of time-dependent environmental effects and a high degree of detector stability. To achieve the required level of stability, COSINE-100 has developed a monitoring system to measure operating conditions, such as temperature, radon levels, and muon rates, over time. Here, I will present the COSINE-100 monitoring system and discuss the achieved stability of the COSINE-100 detector.

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