제목: Studies on the Charcterization and development of organolead halide perovskite quantum dot liquid scintillators for next-generation detector

초록: The study focuses on synthesizing organolead perovskite quantum dots with the aim of incorporating them into use in liquid scintillators. To date, there have been no examples of employing perovskite structures in particle detectors for high-energy or nuclear physics, which making this study an exploration of a next-generation liquid rscintillator material. Currently, most laboratory syntheses of perovskite require expensive and specialized conditions, including high pressure, vacuum, and elevated temperatures. However, this study aims to develop a synthesis method that operates at ambient temperature and pressure that does not require specialized equipment. The physical and optical properties of the synthesized perovskite-based liquid scintillator (PVLS) have been thoroughly investigated.