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Recent results from the LZ System Test platform at SLAC KELLY STIFTER, Stanford University, LZ COLLABORATION — LZ is a next generation dark matter search experiment designed to significantly extend sensitivity to WIMP dark matter candidates. At the core of the LZ design is a dual-phase Xe time projection chamber (TPC) with a 7 ton active volume. A cryogenic test platform with 100 kg of liquid Xe, including a 50 cm tall TPC, has been constructed at SLAC to test multiple subsystems at scales approaching or comparable to the LZ design. The platform focuses on testing the high voltage performance of the TPC and the Xe circulation and purification system, and also provides an opportunity to test the integration of other subsystems. Run 7 of this platform included several upgrades: a new high-speed triggerless DAQ, a new extraction region which is a cloned profile of LZ, increased light collection efficiency with a new 32 PMT array, additional data channels with an instrumented skin region, and suppression of liquid oscillations with a revised circulation path. A brief overview of the design and construction of the test platform will be given, followed by a discussion of current detector performance, with a close look at the high voltage performance of the TPC.

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