Seismic response of solar thermal power tower

uctural damage and collapse were not caused by horizontal earthquake, but by vertical earthquake, which led to researchers paid more attention to the vertical seismic response of the structure once ...

This design methodology for assessing the structural adequacy of separate solar arrays under seismic load is studied. Earthquake-resistant construction is meant to safeguard PV systems ...

In this paper, based on the 1:18 scale model structure with TMD (tuned mass damper) system, the seismic performance test of the solar power tower was carried out. The control effect of the TMD ...

This paper investigates the seismic performance of a high-rise molten-salt solar tower by finite element modelling. The integrated and separated models for solar tower based on the concrete damage ...

Seismic performance evaluation of a tall tower structure with integrated heat-absorbing and air-cooling capabilities: IDA based seismic fragility analysis

Engineers must assess potential seismic hazards using probabilistic seismic hazard analysis (PSHA) and deterministic methods. This involves simulating various earthquake scenarios and evaluating ...

The stochastic response of the hybrid solar tower to near-fault pulse-like ground motions was computed to estimate the tower"s reliability. To enhance the efficiency of reliability estimation, an ...

This test aimed to investigate acceleration response characteristics, displacement response, shear force distribution, and structural failure modes of the heat-absorbing tower structure.

Ten concrete towers are modeled with the empty solar receiver structure and loaded solar receiver structure to examine the tower seismic effects on the solar receiver.

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