Solar Houses at MIT
Dover Sun House

Dover Sun House is slightly different from the other MIT solar houses: sponsored by Boston heiress and sculptress Amelia Peabody, the house heating unit was designed by Dr Maria Telkes, an assistant in the MIT department of metallurgy. The heating technology was very different from that used in the MIT houses: the storage device was not water, but rather Glauber salts (sodium sulfate decahydrate). The sun collector, composed of double layers of plate glass separated by a space filled with air immediately backed by a black metal sheet (800 sq ft), was located on the south facing wall. Warmed air was circulated by fans into heat bins which contained a metal drum filled with Glauber salts. As the warm air circulated around the drums, the salt in each was melted, enabling it to store heat at constant temperature. When the temperature of the surrounding air dropped, the chemical recrystallized and released the absorbed heat. In each room a fan blew in warm air. Architect Eleanor Raymond drew up the plans for the five room house, which was designed to be only one room. The solar collector reflected the sky. A cousin of Maria Telkes, Dr Anthony Nemethy, inhabited the house with his wife and child, but the system failed after three years.

Bibliography:


"Sunlight heats this house," *Science Illustrated* 4, no. 3 (March 1949): 28-31 [Q1.95].

"Test house heated only by solar heat," *Architectural Record* 105 (March 1949): 136-137.


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