

ABSTRACT

INDOOR ENVIRONMENT ADJUSTMENT SYSTEM

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Provided is an indoor environment adjustment system capable of adjusting an indoor environment with a remarkably high level of energy efficiency by using the movement of thermal energy among different far-infrared radiating materials. In the indoor environment adjustment system, cooling surfaces of a cooling source are exposed in an indoor space and are constructed from a material including a far-infrared radiating material (A), exposed surfaces of members forming indoor surfaces in the indoor space are constructed from a material including a far-infrared radiating material (B) having a different type of molecule from the far-infrared radiating material (A), the cooling source is a device for cooling the cooling surface by means of a medium flowing in a flow path formed therein, the integrated emissivity of the material including the far-infrared radiating material (A) and the material including the far-infrared radiating material (B) is at least 0.70 in the wavelength range of 4.5 to 20 μm , and, with regard to the material including the far-infrared radiating material (A) and the material including the far-infrared radiating material (B), an overlapping region in the spectral emission spectrum for wavelengths of 4.5 to 20 μm in the operating temperature range of the system is at least 60% of black-body radiation.

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Figure 2