

**THE EFFECTS OF FABRIC AIR PERMEABILITY AND MOISTURE ABSORPTION ON CLOTHING MICROCLIMATE AND SUBJECTIVE SENSATION IN SEDENTARY WOMEN AT CYCLIC CHANGES OF AMBIENT TEMPERATURES FROM 27°C TO 33°C**

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The present paper aimed at learning the effects of two different levels of air permeability and moisture absorption on clothing microclimate and subjective sensation in sedentary women. Three kinds of clothing ensemble were investigated: 1) polyester clothing with low moisture absorption and low air permeability (A clothing); 2) polyester clothing with low moisture absorption and high air permeability (B clothing); and 3) cotton clothing with high moisture absorption and high air permeability (C clothing). After 20 min of dressing time, the room temperature and humidity began to rise from 27°C and 50% rh to 33°C and 70% rh over 20 min, and it was maintained for 30 min (Section I); it then began to fall to 27°C and 50% rh over 20 min, and it was maintained there for 20 min (Section II). The subject sat quietly on a chair for 110 min. The main findings are summarized as follows: 1) The clothing surface temperature was significantly higher in C clothing than in B clothing during section I, but it was significantly higher in B clothing than in C clothing during section II. 2) Although the positive relationship between the microclimate humidity and forearm sweat rate was significantly confirmed in all three kinds of clothing, the microclimate humidity at the chest for the same sweat rate was lower in C clothing than in A and B clothing. These results were discussed in terms of thermal physiology.