

Another interesting correspondence between our observations and the PERMETEST-measurements [2] follows from a comparison between the two above-named cooling heat fluxes for wet 100% wool fabric (**Figure 8** [2]) and wet 45% wool/55%viscose fabric (**Figure 9** [2]) and wet 45% wool/55% polyester fabric (**Figure 10** [2]). The first sample is supposedly hydrophilic, while the second and third samples – hydrophobic. The respective quantitative change in the slopes is shown in **Figure 3.b**. Authors [2] observed a *similar change in the slopes in plane RWVP-U*. Taking into account our interpretation of variable U by way of **Equations 19 & 20** may be the decisive factor in the choice of clothes to provide better thermal comfort in spite of their moisture content.

Conclusions

The novel AB- l/g -model of effective hydrophilic and hydrophobic porosity ε proposed on the basis of experimental (γ , δ)-data for 41 different TMs taken from [2 - 6] enables the elimination of the influence of the measuring laboratory's conditions e on the results of measurements. The simple model's estimates of the matrix density, observable porosity ε and maximum hygroscopicity can be obtained from **Equations 4 - 12** with the use of the bulk density only and without any ad-

justable coefficients. The interesting correspondence between the AB- l/g -model's predictions and PERMETEST-measurements of the RWVP-quantity is revealed. One may consider the AB- l/g -model proposed as the necessary preliminary steps for a further, more detailed study of the permeability considered as a function of the effective porosity within the framework of **Equation 7**. The variety of theoretical models proposed at present for permeability in which the porosity is only an adjustable parameter can now be considered from a general physical viewpoint. The practical usage of the AB- l/g -model for the comparison of different TMs may be quite promising for the further investigations of PMs in general.



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