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**Optimization of Design and Technology Solutions  
for the Implementation of Non-Destructive Testing  
of Heat Conductivity of Solvents in Thin Products  
from Capillary-Porous Materials**

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**Key words and phrases:** automated control system; capillary-porous material; diffusion coefficient; electromotive force; galvanic probe of solvent content in solid phase; measuring device; metrological analysis; nondestructive testing; solvent.

**Abstract:** The paper explores the matters of optimizing the device to determine the diffusion coefficient of solvents in thin products from capillary-porous materials in terms of ensuring the highest accuracy and performance of nondestructive testing method, and the device developed for its implementation.