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**RESEARCH OF BEHAVIOUR OF TRANSITION FIELDS OF TEMPERATURE AND MOISTURE TRANSFER POTENTIAL DURING CONDUCTIVE DRYING OF CARDBOARD**

**Ya. Yu. Kolyano, T. S. Sass**

*Ukrainian Academy of Printing,  
19, Pid Holoskom St., Lviv, 79020, Ukraine  
orange3005@gmail.com*

***Research methodology.*** *The paper presents the applied mathematical modeling techniques and Laplace transformation of integrals for analytical solutions for the problem of unsteady thermal conductivity.*

***Results.*** *The problem of non-stationary thermal conductivity of single-layer plates for conductive drying of cardboard has been solved; graphs of distributions of temperature and moisture transfer potential in time for the cardboard of varying thick­ness have been built.*

***Novelty.*** *Laplace transformation of integrals method has been used to solve the problem of non-stationary conductive thermal conductivity taking into account the criteria of surface moisture (Bim) and the relationship of heat and moisture transfer (Lu); the well known effect from the theory of heating has been developed on cardboard, which allows, under the value of dimensionless parameter Bio and values of temperature gradients, to conclude massivity of cardboard plate which is heated or dried.*

***Practical significance.*** *Values of thermodynamic parameters of cardboard are specified, which allowed to calculate the relevant dimensionless parameters and simulate conductive drying process; an approach that allows to explore the drying processes in any moist capillary-porous colloid materials has been proposed – as for the printing industry (cardboard, paper, cellulose, binding materials, threads, etc.) and for other industries (wood, leather, textiles, grain, flour, dried fruit, clay, peat, coal, soil, etc.), which gives the opportunity to build graphs of temperature and moisture potentials distributions in time and to form recommendations for improvement of drying processes.*