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Development of experimental ultrasound device  
for modification of photopolymer flexographic printing plates

S. A. Bartashevich1, S. K. Grudo1, S. A. Khokhriakov2

*1Belarusian State Technological University,  
13 a, Sverdlova St., Minsk, 220006, Republic Belarus*

*2«Powder Metallurgy Institute» National Academy of Sciences of Belarus  
41 Platonov St., Minsk, 220005, Republic Belarus*  
*Bart19@belstu.by*

**Research methodology.** Mathematical modeling based on a method of calculation of oscillatory system with the piezoceramic transformer for determination of necessary technological parameters of experimental ultrasound device for modification of flexographic photopolymeric printing plates was used.

**Results.** Experimental ultrasound device of homogenization of photopolymeric composi-tion was developed and made. This device will allow improving the firmness of raster structure of flexographic printing plates and can be used for printing plates, various on hardness, which expands its functionality. The process of ultrasound modification of flexographic plates realized in the device has low power consumption and is environmentally friendly.

**Novelty.** Development and making of experimental device for ultrasound modification of flexographic printing plates is executed taking into account properties of the irradiated material. Use of system of the regulated voltage of a working surface of the tool carries out effective influence by ultrasound fluctuations on the irradiated working surface of a form on zones with necessary acoustic contact between them.

**The practical significance.** A certain economic effect of introduction of this development into the production can be expected in the long term at the expense of increase in service life of a flexographic printing plate.