

## **Plasma technologies application for building materials surface modification**

Volokitin G., Skripnikova N., Volokitin O., Shehovtsov V., Luchkin A., Kashapov N.  
*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

---

### **Abstract**

Low temperature arc plasma was used to process building surface materials, such as silicate brick, sand lime brick, concrete and wood. It was shown that building surface materials modification with low temperature plasma positively affects frost resistance, water permeability and chemical resistance with high adhesion strength. Short time plasma processing is rather economical than traditional processing thermic methods. Plasma processing makes wood surface uniquely waterproof and gives high operational properties, dimensional and geometrical stability. It also increases compression resistance and decreases inner tensions level in material.

<http://dx.doi.org/10.1088/1742-6596/669/1/012065>

---