

DEVELOPMENT OF NANOSTRUCTURED THERMOELECTRIC MODULES FOR AGRICULTURE

Aleksandrs Homko, Genadijs Moskvins

Latvia University of Agriculture

The accompanying Figures 1-9:

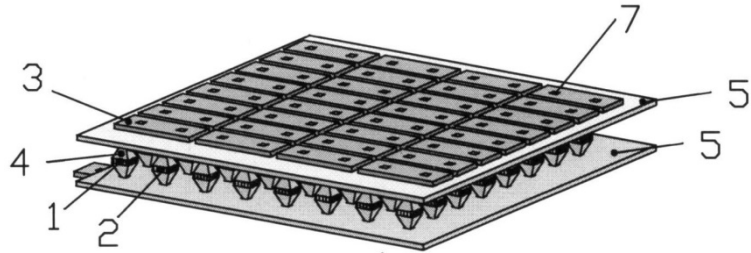


Fig.1. Perspective view of thermoelectric module according to present TEM.

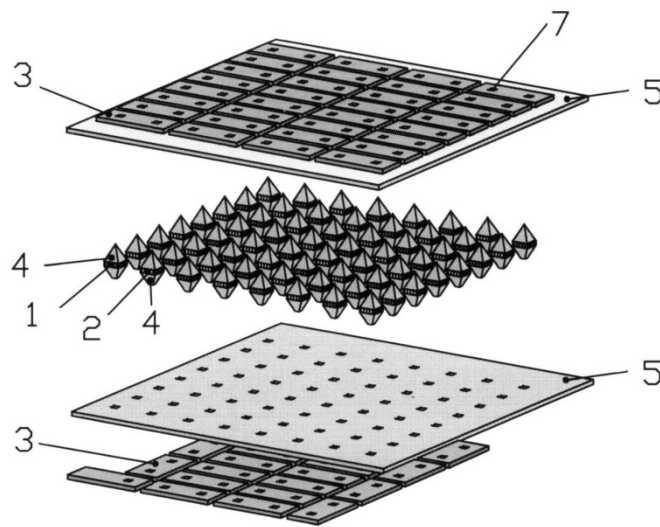


Fig.2. Perspective view of spaced parts of thermoelectric module according to present TEM.

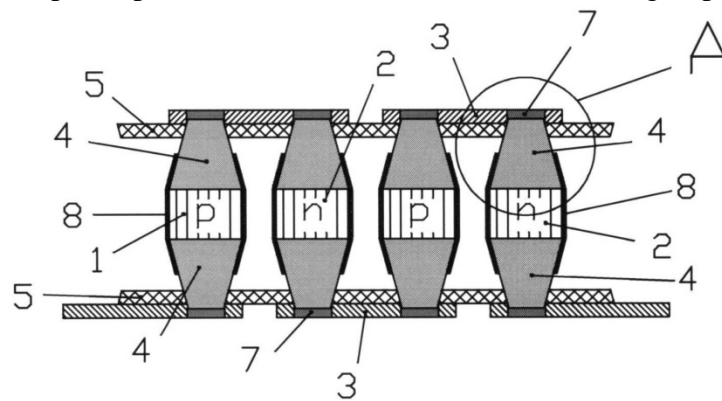


Fig.3. Cross section of thermoelectric module according to one embodiment of present TEM.

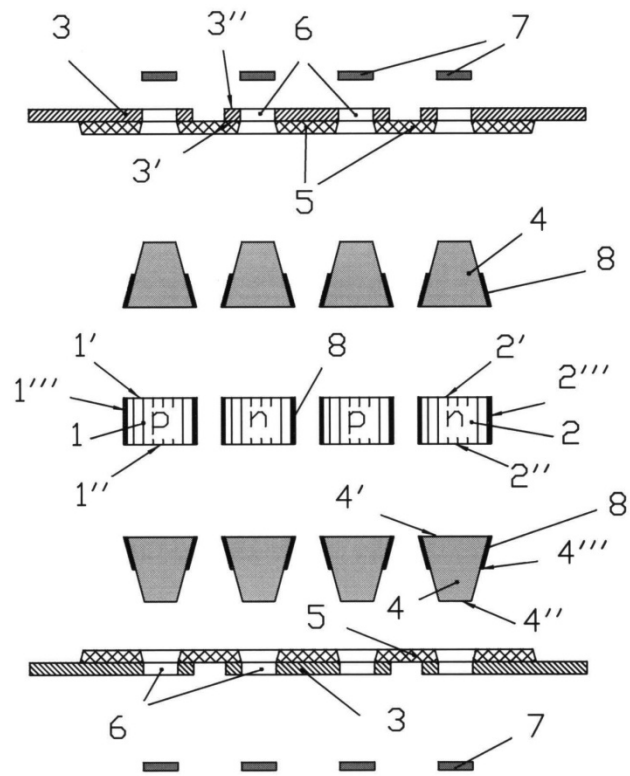


Fig.4. Cross section of thermoelectric module according to one embodiment of present TEM.

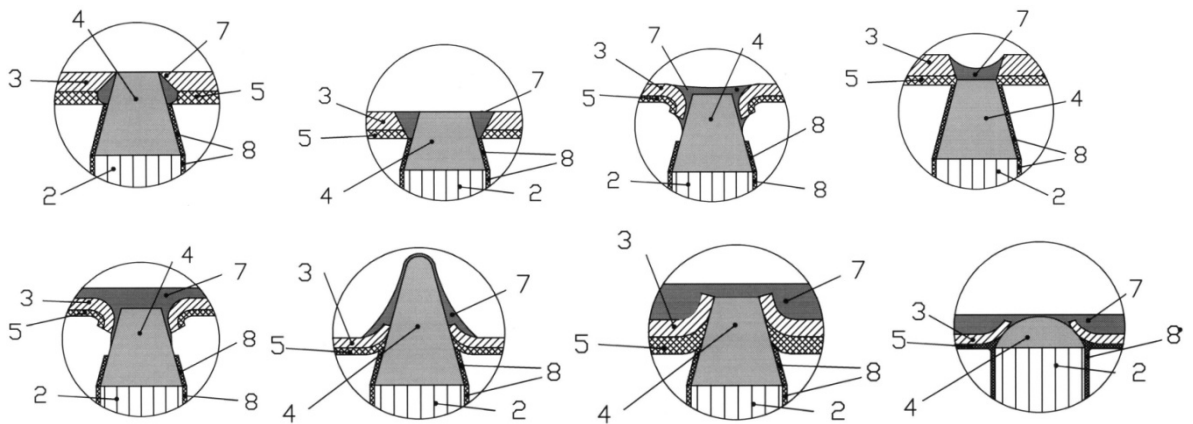


Fig.5. Different embodiments of place A in Fig.3.

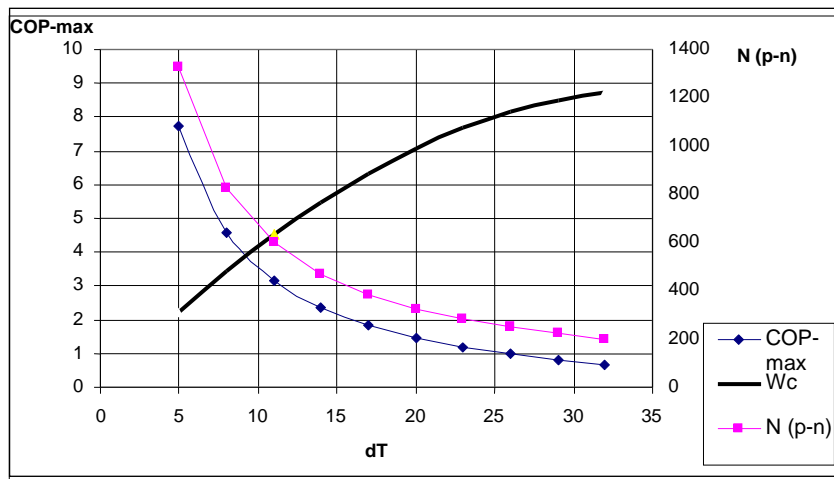


Fig.6. Dependence of optimal number of thermocouple legs on ΔT for $Z(p-n) = 2,6 \cdot 10^{-3} K^{-1}$.

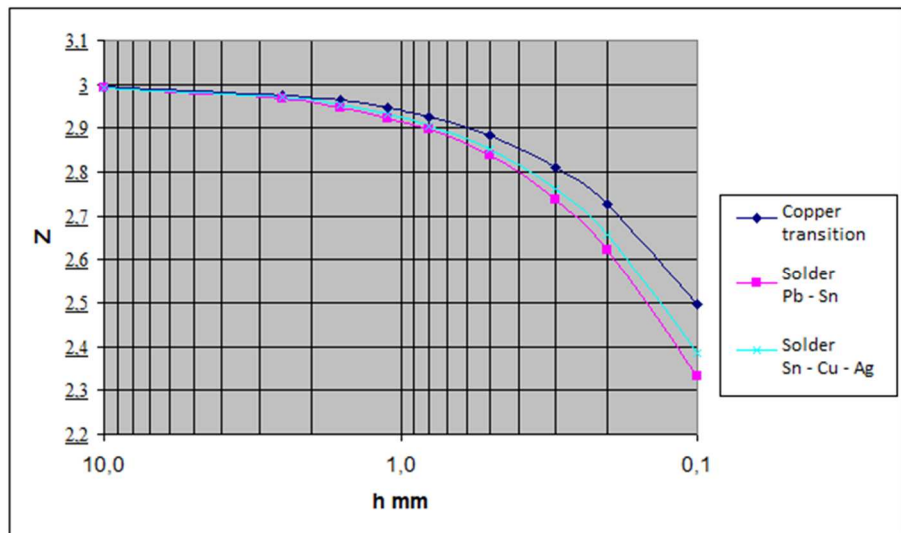


Fig. 7. Dependence of thermoelectric efficiency ($Z \cdot 10^3 K^{-1}$) on height of thermocouple legs and the applied solder.

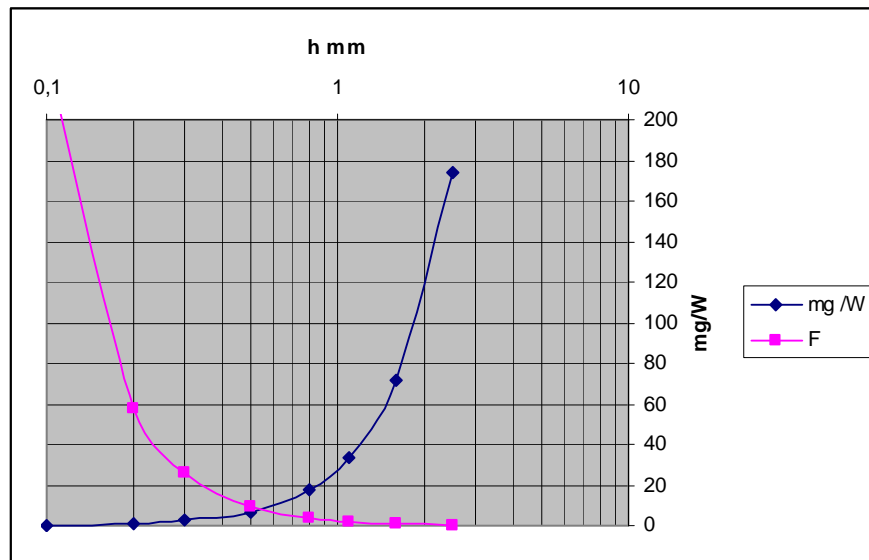


Fig.8. Dependence of content of thermoelectric material in TEM and thermo mechanical stresses in TEM on height of thermocouple legs.

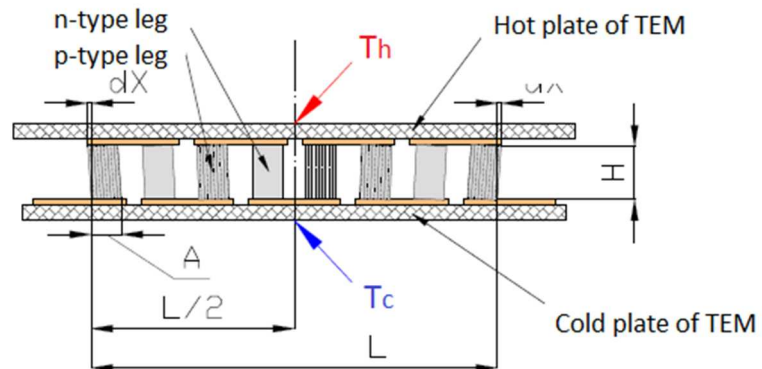


Fig.9. Illustration of thermo mechanical deformations of TEM.