I. M. Fedorchenko, N. G. Baranov and V. F. Britun, On the mechanism of formation of surface films in the dry friction of composites, *Trenie Iznos*, 5 (3) (1984) 424.

Surface films formed during friction of cermet composites were examined by transmission and scanning electron microscopy, X-ray diffraction and metallographic analysis.

O. V. Kholodilov, Effect of sliding velocity on the peculiarities of wear of thermoplastics, *Trenie Iznos*, 5 (3) (1984) 431.

The tribological performances of pure thermoplastics and composites on a thermoplastic base are evaluated in a wide range of load–velocity conditions. Friction heating is found to be the most prominent factor in the wear behaviour of the materials tested.

M. M. Amelishko, V. V. Shezhkov, V. E. Bakhareva, M. B. Rubin and L. S. Koretskaya, Studies in the structure and friction surface properties of epoxy–carbon plastic, *Trenie Iznos*, 5 (3) (1984) 437.

The structure of the surface layer of an epoxy–carbon plastic was studied during friction against a steel counterbody. This layer was found to have a structure similar to that of graphite and to have a good lubricating performance. Friction transfer of composite to the counterbody was obtained during testing.

I. G. Goryacheva and M. N. Dobychin, Effect of coatings on the contact performances of radial sliding bearings, *Trenie Iznos*, 5 (3) (1984) 442.

A contact problem is solved when a bearing with a thin coating (*e.g.* a solid lubricant) formed on the journal surface is considered. The elastic properties of coatings are evaluated by Winkler's model. The performance of the coating is found to determine the contact characteristics in a wide range of operation conditions.

V. I. Maksak, B. F. Sovetchenko and T. V. Chernysheva, Shear of a plastically strained spherical segment contacting with a rigid die, *Trenie Iznos*, 5 (3) (1984) 451.

Contact problem solutions are presented when plastic flattening and shear of a spherical segment contacting a rigid plate under normal and tangential loads are considered. A comparison of the calculated and test data was carried out.

Ya. A. Rudzit, On the methodology of the calculation–test evaluation of the microtopographical parameters of a friction surface, *Trenie Iznos*, 5 (3) (1984) 457.

On the basis of random field theory a general method for the measurement of anisotropic rough surfaces is considered. The interrelation between the profile and the surface parameters is investigated. It is shown that the surface roughness parameters can be evaluated when the mean square deviation, the number of zeros and the summits of the surface profile are measured. Adequate representation of the surface roughness can be made in terms of five, three, two or one non-parallel surface profiles taking account of roughness type.