









Fig.3. The results of ball-on-disc tribology tests obtained for three different investigated layer composites: PN+CrN, PN+CrAlN and PN+TiCrAlN.

Basing on the obtained results authors proved that the proper chemical composition and microstructure of thin PVD coatings, is the effective way for increase of stability of wear resistant of layer composites type “PN+PVD coating” in high temperature. The most important role in this process fulfil the participation of different metals in deposition process. It increase the possibility of creation of multicomponent nitrides, i.e. Cr-Al-N, Ti-Al-N, Ti-Cr-N and Al-Cr-Ti-N, which characterized higher hardness and higher stability in high temperature.