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**Influence of Nutation of the Projectile on Fracture of the Anisotropic Target** ANDREY RADCHENKO, Tomsk State University of Architecture and Building, Russia, PAVEL RADCHENKO, Institute of Strength Physics and Materials Science SB RAS, Russia — In actual practice the direction of the vector of velocity, as a rule, doesn't coincide with the direction of a longitudinal axis of a moving body, and makes with it some angle named the angle of nutation. The nutation influence on process of interaction of the projectile and a target is defined not only by its size, but also geometrical and kinematic parameters of the process. It is obvious that for a case of the prolonged projectile the angle of nutation influence is more considerable, than for the compact projectile because in this case the nutation angle presence changes not only a picture of strain-stress state of interaction bodies, but also leads to loss of stability in the projectile. The three-dimensional problem of oblique high-velocity interaction of the prolonged cylindrical projectile from steel with an anisotropic target from organoplastic is considered. Lengthening of the projectile makes from 15 to 30 calibers, the range of initial velocities of the projectile from 700 to 3000 m/sec is researched. Modeling is carried out numerically by a method of finite elements. Influence of nutation angle and rotation of the projectile on fracture of target and stability of the projectile is analyzed.

Andrey Radchenko  
Tomsk State University of Architecture and Building, Russia

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