

THE SCATTERING DESTRUCTION OF HOLLOW SPHERICAL CONTAINER
UNDER THE ACTION OF INTERNAL PRESSURE

Abstract

On the base of conception of material heredity damage in loading process the process of scattering destruction of hollow spherical container is investigated under the action of internal pressure. The analytical expression is obtained for the initial time destruction. Non-linear integral motion equation of front destruction in assumption of full carrying capacity of material of front destruction is obtained. For constant kernel of damage operator the evident analytical expression low on motion of front destruction is received; for weak singular Abell kernel the integral equation was realized on the base on numerical algorithm.