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30 %.

1., 2007. 528 .
2., 1978. 228 .
3., 1969. 402 .
4., 2005. 60 .
5., 1977. 227 c.
6. Hart E. L., Terokhin B. I. Computer simulation of the stress-strain state of the plate with circular hole and functionally graded inclusion. *Journal of Optimization, Differential Equations and their Applications*. 2021. V. 29, Iss.1. P. 42–53. <https://doi.org/10.15421/142103>
7. Modern Science: Innovations and Prospects: Proceedings of the IX International Scientific and Practical Conference (May 29–31, 2022, Stockholm, Sweden). 2022. P. 301–306.
8., 1968. 888 .
9., 1980. 636 .
10., 2019. . 30. . 19–32.
11., 2017. . 27. . 52–64.

12. 2018. 4. . 82–89. <https://doi.org/10.15407/itm2018.04.082>
13. *Gudramovich V. S., Gart É. L., Strunin K.* . Modeling of the behavior of plane-deformable elastic media with elongated elliptic and rectangular inclusions. *Materials Science*. 2017. V. 52, Iss. 6. . 768–774. <https://doi.org/10.1007/s11003-017-0020-z>
14. *Hudramovich V. S., Hart E. L., Marchenko O. A.* Reinforcing inclusion effect on the stress concentration within the spherical shell having an elliptical opening under uniform internal pressure. *Strength Mater.* 2021. V. 52, No. 6. P. 832–842. <https://doi.org/10.1007/s11223-021-00237-7>
15. . . . [.]. . . , 2011. 192 .
16. *Yang Q., Gao C.-F., Chen W.* Stress analysis of a functional graded material plate with a circular hole. *Arch. Appl. Mech.* 2010. V. 80. P. 895–907. <https://doi.org/10.1007/s00419-009-0349-3>
17. *Linkov A., Rybarska-Rusinek L.* Evaluation of stress concentration in multi-wedge systems with functionally graded wedges. *Intern. J. Engng Sci.* 2012. V. 61. P. 87–93. <https://doi.org/10.1016/j.ijengsci.2012.06.012>
18. *Kubair D. V., Bhanu-Chandar B.* Stress concentration factor due to a circular hole in functionally graded panels under uniaxial tension. *Intern. J. Mech. Sci.* 2008. V. 50. P. 732–742. <https://doi.org/10.1016/j.ijmecsci.2007.11.009>
19. *Mohammadi M., Dryden J. R., Jiang L.* Stress concentration around a hole in a radially inhomogeneous plate. *Intern. J. Solids Structures*. 2011. V. 48. P. 483–491. <https://doi.org/10.1016/j.ijsolstr.2010.10.013>
20. *Washizu K.* *Variational Methods in Elasticity and Plasticity*. Elsevier Science & Technology, 1974. 412 p.

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23.11.2022