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1. ... , 2009.

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2. ...

». 2006. . 2. . 88–100.

3. 1984. . 5. . 47–52.

4. 2013. . 3. . 10–20.

5. ... , 1971. 564 .

6. ...

7. 2014. . 4. . 3–13.

... . 2015, N 2. . 79–92.

8. , 1978. 288 .
9. , 2009. 280 .
10. , 2008. 511 .
11. *Di Matteo, Fr., De Rosa, M., Onofri, M.* Start-Up Transient Simulation of a Liquid Rocket Engine. AIAA 2011-6032 47th AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit (31 July - 03 August 2011), San Diego, California (15p.). Retrieved from www.enu.kz/repository/2011/AIAA-2011-6032.pdf
12. *Kohnke P.* Ansys, Inc. Theory Manual 001369, Twelfth Edition. Canonsburg: SAS IP, Inc., 2001. 1266 p.
13. , 1988. 352 .
14. *Hirt C. W., Nichols B. D.* Volume of fluid (VOF) method for the dynamics of free boundaries. *Journal of Computational Physics*. 1981, 39 (1). P. 201–225.
15. , 1986. . 164–175.
16. , 2005, 2. . 65–74.
17. , 2004. .V. . 13–21.
18. , 2010. . . . 106–113.
19. , 2006. 2. . 114–120.
20. , 1975. 296 .
21. , 1977. 352 .

13.11.2018,
10.12.2018