

## СПИСОК ИСПОЛЬЗОВАННЫХ ИСТОЧНИКОВ

1. Ilicewicz L. Past Experiences and Future Trends for Composite Aircraft Structure /L. Ilicewicz // <http://www.coe.montana.edu/me/faculty/cairns/Composites/11-10-09li.pdf>.- 2009.- С. 0-0.
2. Martin R. Reducing Costs in Aircraft: The Metals Affordability Initiative Consortium/ R. Martin , D. Evans // Journal of Operations Management.- 2000.- Т. 52.- С. 24-28.
3. Koplev A. The cutting process, chips, and cutting forces in machining CFRP/ A. Koplev, A. Lystrup, T. Vrom // Composites.- 1983.- Т. 4.- С. 371-376.
4. Kaneeda T. CFRP cutting mechanism (1st report): Surface generation mechanism at very low speeds / T. Kaneeda, T. Masayuki // Journal of the Japan Society of Precision Engineering.- 1989.- Т. 55.- С. 1456-1461.
5. Arola D. Chip formation in orthogonal trimming of graphite/epoxy composite / D. Arola, M. Ramulu, D.H. Wang // Composites.- 1996.- Т. 27.- С. 121-133.
6. Singh I. Drilling Induced Damage in FRP Composite Laminates / I. Singh, D. Nayak, R. Saxena, N. Bhatnagar // IE(I) Journal-MM.- 2004.- Т. 85.- С. 37-40.
7. Marques A. Delamination Analysis of Carbon Fibre Reinforced Laminates /A. T. Marques, L.M. Durão, A.G. Magalhães, J.M. Tavares // 16th International Conference on Composite Materials. - Porto, 2007.- С. 1-10.
8. Durão L.M. Machining of Hybrid Composites : дис. канд. техн. наук :/ L.M. Durão - Porto, 2005.-242 с.
9. Larsi L. Macromechanical and micromechanical modelling of machining long fiber reinforced polymer composites : дис. канд. техн. наук:/ L. Larsi - Paris, 2009.- 150 с.
10. Wang X.M. An experimental investigation into the orthogonal cutting of unidirectional fibre reinforced plastics / X.M. Wang, L.C. Zhang // Int. J. of Machine tools & Manufacture.-2003.- Т. 43.- С. 1015-1022.

11. Komanduri R. Machining fiber-reinforced composites / R. Komanduri // Mechanical Engineering.-1995.- Т. 115.- С. 58-64.
12. Kolhar A.S. Analysis of Delamination in Drilling of Circular Plate Composite Materials with a Multi-face Drill Bit :Bachelor of Engineering / A. S Kolhar - Wichita, 2007. - 71 с.
13. Тарасюк А.П., Вереzub Н.В., Хавин Г.Л. Механическая обработка волокнистых полимерных композитов / А.П. Тарасюк, Н.В. Вереzub, Г.Л. Хавин. - Харків: ХНАДУ, 2001.- 180 с.
14. Sheikh-Ahmad J.Y. Machining of Polymer Composites / J.Y. Sheikh-Ahmad. - Technology & Engineering, 2008.- 230 с.
15. Gordon S. A review of the cutting of composite materials / S. Gordon, M.T. Hillery // J. Materials: Design and Applications.- 2003.- Т. 217.- С. 35-46.
16. Davim J.P. Machining of composite materials / J. P. Davim. - London : Wiley, 2010.- 262 с.
17. Cabrera F.M. Sur l'usinabilit'e des composites `a matrices polym`eres renforc'ee par des fibres / F.M. Cabrera // M'ecanique & Industries.- 2010.- Т. 11.- С. 93-103.
18. Ghidossi P. Contribution à l'étude de l'effet des conditions d'usinage d'éprouvettes en composites à matrice polymère sur leur réponse mécanique: дис. канд. техн. наук / P. Ghidossi. - Ecole, 2003. - 166 с.
19. Iiescu D. Approches experimentale et numerique de l'usinage a sec des composites carbone/ероху: дис. канд. техн. наук / D. Iiescu.- Paris, 2008.- 219 с.
20. Основи теорії різання матеріалів : підручник /Н. П. Мазур та ін.- Львів : Новий світ, 2010.- 422 с.
21. Koboević N. Metode i načini osiguranja kvalitete pri izradi otvora bušenjem u kompozitnim materijalima (Methods and Ways of Ensuring Hole Fabrication Quality During Drilling Process of Composite Materials) :master of science thesis : 05.03.01/ N. Koboević.- Dubrovniku, 2003.-151 с.
22. Madiwal S. Analysis of surface finish in drilling of composites using neural networks/ S. Madiwal // B.E, Karnatak University.- 2006.- С. 1-94.

23. Drilling of composite structures / F. Lachaud, R. Piquet, F Collombet, L. Surcin // Composite Structures.- 2001.- Т. 52.- С. 511-516.
24. Machining carbon fibre materials: user's guide / Sandvik Coromant, 2010.- 63 с.
25. Campbell F. C. Manufacturing Processes for Advanced Composites.- 1-е изд. Elsevier Science, 2004.- 532 с.
26. Assessment of the exit defects in carbon fiber-reinforced plastic plates caused by drilling/ H. Zhang, W. Chen, D. Chen, L. Zhang // Key Engineering Materials.- 2001.- Т. 196.- С. 43-52.
27. Chen W. Some experimental investigations in the drilling of Carbon Fibre-Reinforced Plastic (CFRP) composite laminates / W. Chen // Int. J. of Machine tools & Manufacture.- 1997.- Т. 37.- С. 1097-1108.
28. Mehta M. Effect of fastener hole drilling anomalies on structural integrity of PMR-15/Gr composite laminates/ M. Mehta, T. J. Reinhart, A. H. Soni // Proceedings of the Machining Composite Materials Symposium.- 1992.- С. 113-126.
29. Faraz A. Cutting edge rounding: An innovative tool wear criterion in drilling CFRP composite laminates/A. Faraz, D. Biermann, K. Weinert // International Journal of Machine Tools & Manufacture.- 2009.- № 49.- С. 1185-1196.
30. Sedlacek J. Analysis of Delamination in Drilling of Composite Materials / J. Sedlacek, M. Slany // Science Journal.- 2010.- № 6. - С. 194-197.
31. Astom T. Manufacturing of polymer composites/ T. Astom – Taylor & Francis Group, 1997. - Т.1.- 467 с.
32. Strakel M. Drill Bit Investigation/M. Strakel.– Sydney : School of mechanical engineering, 1997. – 98 с.
33. Bharar R. S. On Drilling of Advanced Aerospace Composite/ R. S. Bharar.- Melbourne : Royal Melbourne Institute of Technology, 1991.
34. Khashaba U. A. Delamination In Drilling GFP-thermoset Composites/ U. A. Khashaba // Composite Structures.- 2004.- Т. 63.- С. 313-327.
35. Faria P. E. Dimensional and Geometric Deviations Induced by Drilling of Polymeric Composite/ P. E. Faria, J. C. Rubio, A. M. Abrao // Journal of Reinforced Plastics and Composites.- 2009.- Т. 28, № 19.- С. 2353-2364.

36. L. M. Durão, J. M. Tavares, A. T. Marques и др. Comparison of Tool Effects on Hybrid Laminates after Drilling/ L. M. Durão, J. M. Tavares, A. T. Marques и др. // 5th International Conference on Mechanics and Materials in Design.- Porto, 2006.- С. 1-14.
37. Tsao C. C. Effects of exit back-up on delamination in drilling composite materials using a saw drill and a core drill/ C. C. Tsao, H. Hocheng // International Journal of Machine Tools & Manufacture.- 2005.- № 45.- С. 1261-1270.
38. Wang J. Y. A predictive depth of penetration model for abrasive waterjet cutting of polymer matrix composites/ J. Y. Wang, D. M. Guo // Journal of Materials Processing Technology.- 2002.- Т. 121.- С. 390-394.
39. Kim D. Drilling process optimization for graphite/bismaleimide–titanium alloy stacks/ D. Kim, M. Ramulu // Composite Structures.- 2004.- № 63.- С. 101-114.
40. Ramulu M. A study on the drilling of composite and titanium stacks/ M. Ramulu, T. Branson, D. Kim // Composite Structures.- Washington, 2001.- № 54.- С. 67-77.
41. Davim J. P. Drilling of composite materials/ J. P. Davim.- New York : Nova Science Publishers, 2009.- 179 с.
42. Tsao C. C. Effect of deviation on delamination by saw drill / C. C. Tsao // Int. J. of Machine tools & Manufacture.- 2007.- Вып. 47.- С. 1132-1138.
43. Tsao C. C. Effect of eccentricity of twist drill and candle stick drill on delamination in drilling composite materials/ C. C. Tsao, H. Hocheng // International Journal of Machine Tools & Manufacture.- 2005.- № 45.- С. 125-130.
44. Brinksmeier E. Drilling of Multi-Layer Composite Materials consisting of Carbon Fiber Reinforced Plastics (CFRP), Titanium and Aluminum Alloys/ E. Brinksmeier, R. Janssen // CIRP Annals–Manufacturing Technology.- 2003.- Т. 51.- С. 87-90.
45. Zitoune R. Study of drilling of composite material and aluminium stack/ R. Zitoune, V. Krishnaraj, F. Collombet // Composite Structures.- 2010.- № 92.- С. 1246-1255.
46. Campbell F. C. Manufacturing Technology for Aerospace Structural Materials/ F. C. Campbell.- Elsevier, 2006.- 616 с.
47. Воробьев Ю. А. Анализ исследований по сверлению смешанных пакетов из композиционных материалов и титановых сплавов/ Ю. А. Воробьев, А. И. Николенко, А. Ю. Воробьев // Технология производства летательных аппаратов.-

Харьков : Национальный аэрокосмический университет им. Н.Е. Жуковского «ХАИ», 2008.- С. 1-3.

48. Garrick R. Drilling Advanced Aircraft Structures with PCD (Polycrystalline Diamond) Drills/ R. Garrick // SAE International.- Utah U.S.A, 2007.- С. 1-9.

49. Bi S. Experimental studies and optimization of process parameters for burrs in dry drilling of stacked metal materials/ S. Bi, J. Liang // Int. J. Adv. Manuf. Technology.- Springer, 2010.- С. 0-0.

50. Hellstern C. Investigation of Interlayer Burr Formation in the Drilling of Stacked Aluminum Sheets : дис. master of science : 05.03.01/ C. Hellstern.– 2009. –146 с.

51. An experimental study of interfacial burr formation in drilling of stacked aluminum sheets/ T. R. Newton, J. Morehouse , S. N. Melkote, S. Turner // Transactions of NAMRI/SME.– 2007.– Т. 36.– С. 437–444.

52. ASM Handbook : в 22 т. – ASM International, 2001.– Т.21: Composites.– 2605 с.

53. Lawlor V. P. Characterisation of damage development in single-shear bolted composite joints/ V. P. Lawlor, W. F. Stanley, M. A. McCarthy // Journal of Plastics, Rubber and Composites.– London: The Institute of Materials, 2010.– Вып. 31.– № 3.– С. 126–133.

54. DiNICOLA A. J. Bearing Strength Behavior of Clearance-Fit Fastener Holes in Toughened Graphite/Epoxy Laminates/ A. J. DiNICOLA, S. C. FANTLE // Composite Materials: Testing and Design.– 1993.– Т. 11.– С. 220–237.

55. Amit Y. Experimental Investigation and Analysis for Bearing Strength Behavior of Composite Laminates: дис. master of science: 05.03.01/ Y. Amit.– Wichita, 2006.– 81 с.

56. Schön J. Fatigue Life Prediction of Composite Bolted Joints With Bolt Failure/ J. Schön // FATIGUE.– Stockholm, 2002.– № 2.– С. 1119–1126.

57. Kelly G. Load Introduction in Carbon Fibre Composites for Automotive Applications/ G. Kelly // Department of Aeronautics Royal Institute of Technology.– Stockholm, 2002.– С. 1–11.

58. Rawat S., Attia H. Wear mechanisms and tool life management of WC–Co drills during dry high speed drilling of woven carbon fibre composites/ S. Rawat, H. Attia // Wear.- 2009.- № 267.- С. 1022-1030.

59. Drilling of Titanium/CFRP/Aluminium Stacks/ I. Shyha, S. L. Soo, D. K. Aspinwall и др. // Key Engineering Materials.- 2010.- Т. 447.- С. 624-633.
60. Pecat O. Damage Drilling of CFRP/Titanium Compound Materials for Fastening/ O. Pecat, E. Brinksmeier, Low // Procedia CIRP 13.- 2014.- С. 1-7.
61. The effect of cutting speed and feed rate on hole surface integrity in single-shot drilling of metallic-composite stacks/ C. L. Kuo, S. L. Soo, D. K. Aspinwall и др. // Procedia CIRP 13.- 2014.- С. 405-410.
62. Tool wear of coated drills in drilling CFRP/ X. M. Wang, P. Kwon, C. Sturtevant, D. Kim // Journal of Manufacturing Processes.- 2013.- № 15.- С. 127-135.
63. Muller-Hummel P. New cutting tool geometry for milling and drilling of CFRP and CFRP/Titanium Stack materials/ P. Muller-Hummel // SME Webinar.- 2009. - С. 0-0.
64. Comparative Tool Wear Study Based on Drilling Experiments on CFRP/Ti stack and its Individual Layers/ W. Xin, Y. K. Parick, S. Caleb и др // Wear.- Elsevier, 2014.- Вып. 317, Т. 1.- С. 265-276.
65. Tool wear in drilling of composite/titanium stacks using carbide and polycrystalline diamond tools/ K. Y. Park, A. Beal, D. Kim и др. // Wear.- Elsevier. 2011.- № 271.- С. 2826-2835.
66. A Local approach of wear in drilling Ti6Al4V/CFRP for stack modelling/. Poutord, F. Rossi, G. Poulachon, R. M'Saoubi // Procedia CIRP 8.- Elsevier, 2013.- С. 316-321.
67. Preliminary study on rotary ultrasonic machining of CFRP/Ti stacks/ W. L. Cong, Z. J. Pei, C. Treadwell // Ultrasonics.- Elsevier, 2014. - Вып. 6, Т. 64. - С. 1594-1602.
68. Senthil Kumar M. Study on Tool Wear and Chip Formation during Drilling Carbon Fiber Reinforced Polymer (CFRP)/Titanium Alloy (Ti6Al4V) Stacks/ M. Senthil Kumar, A. Prabukarthi, V. Krishnaraj // Procedia Engineering .- 2013.- Вып. 64.- С. 582-592.
69. Lambert B. K. Prediction of force, torque and burr length in drilling titanium composite materials/ B. K. Lambert // Society of Manufacturing Engineers.- 1979.- С. 1-11.
70. Weiss R. A. Portable air feed peck drilling of graphite composite, titanium and other materials in dissimilar combinations/ R. A. Weiss // FASTEC '89.- Arlington, 1989. - С. 4-6.

71. Kim D. Hole quality in drilling of Graphite/Bismaleimide-Titanium stacks/ D. Kim, M. Ramulu, J. Garbini // 3rd International SAMPE Technical Conference.- Seattle, 2001.- С. 1315-1326.
72. Denkena B. Helical Milling of CFRP-Titanium Layer Compounds/ B. Denkena, D. Boehnke, J. H. Dege // Proceedings of CIRP HPC 2008.- 2008.- С. 121-130.
73. Yagishita H. Comparing drilling and circular milling for hole making in bilayer composite materials consisting of carbon fiber reinforced plastic (CFRP) laminates and titanium alloys/ H. Yagishita // Trans. NAMRI/SME 36.- 2008.- С. 17-24.
74. Бычков С. А. Исследование и разработка новых технологий агрегатно-сборочного производства гражданских самолетов/ С. А. Бычков, В. А. Матвиенко, Г. Н. Романович // Технологические системы.- 2013.- Вып. 1.- № 62.-С. 73-81.
75. Fernandes M. Intelligent automated drilling and reaming of carbon composites: дис. канд. техн. наук : M. Fernandes.- University of Wollongong, 2005.- 195 с.
76. Shinsaku H. , Fujiwara J. , Nomura M. Tool Wear Mechanism in Cutting of CFRP [in Japanese] // Transactions of the Japan Society of Mechanical Engineers. -1994. - Т. 60, № 569. -С. 297- 302.
77. Криворучко Д. В. Наукові основи моделювання процесів різання з використанням числових методів: Автореф. дис. д-ра. техн. наук : 05.03.01/ Д. В. Криворучко. - СумДУ.- Харків, 2010.- 40 с.
78. Class2 BC04-ext Module: УТВ. Rayson Co./Rayson Co..- Atlanta, 2013.- 6 с.
79. C8051F040/1/2/3/4/5/6/7 Manual: УТВ. Silicon Laboratories Inc./Silicon Laboratories Inc..- Aalen, 2012.- 328 с.
80. Influence of chromium content on the dry machining performance of cathodic arc evaporated TiAlN coatings/ S. G. Harris, E. D. Doyle, A. C. Vlasveld, J. Audy // Wear.- 2003.- № 254.- С. 185-194.
81. Макаров А. Д. Износ и стойкость режущих инструментов/ А. Д. Макаров.- М.: Машиностроение, 1966.- 266 с.
82. Дрожжин В. И. Физические особенности и закономерности процесса резания слоистых пластмасс: автореф. дис. д-ра. техн. наук : 05.03.01/ В. И. Дрожжин.- ХПИ.- Харьков, 1982.- 32 с.

83. Везуб Н. В. Научные основы высокоэффективных процессов механической обработки полимерных композитов: автореф. дис. д-ра. техн. наук : 05.03.01/ Н. В. Везуб.- ХНИИТМ.- Х., 1995.- 43 с.
84. Кравченко Л. С. Исследование процесса сверления слоистых пластмасс: автореф. дис. канд. техн. наук : 05.03.01/ Л. С. Кравченко.- ХПИ.- Харьков, 1973.- 19 с.
85. Степанов А. А. Обработка резанием высокопрочных композиционных материалов/ А. А. Степанов.- Л.: Машиностроение, 1987.- 176 с.
86. Штучный Б. П. Обработка резанием пластмасс/ Б. П. Штучный.- М.: Машиностроение, 1974.- 144 с.
87. Подураев В. Н. Резание труднообрабатываемых материалов/ В. Н. Подураев.- М.: Высшая школа, 1974.- 587 с.
88. Сороченко В. Г. Теплообразование и температура резания при алмазно-абразивном шлифовании полимерных композиционных материалов/ В. Г. Сороченко // Прогресивні технології і системи машинобудування.- 2009.- Т. 38.- С. 214-224.
89. Лупкин Б. В. Механическая обработка композиционных материалов/ Б. В. Лупкин, О. В. Мамлюк // Труды Международной ежегодной научно-практической конференции «Композиционные материалы в промышленности» (Славполикком).- Ялта, 2001.- С. 70-79.
90. Machining of fibre reinforced plastics/ W. Konig, C. Wulf, P. Graß, H. Willercheid // Annals of CIRP.- 1985.- Т. 34.- С. 537-548.
91. Kim D. Study on the Drilling of Titanium/Graphite Hybrid Composites/ D. Kim, M. Ramulu // Transactions of the ASME.- ASME, 2007.- № 129.- С. 390-396.
92. Kentli A. Experimental study on peck drilling of GFRP and prediction of drilling-induced damage using ANN/ A. Kentli // Scientific Research and Essays.- 2011.- Т. 6.- С. 1546-1554.
93. Mishra R. Prediction of drilling-induced damage in unidirectional glass-fibre-reinforced plastic laminates using an artificial neural network./ R. Mishra, J. Malik, I. Singh // Proceedings of the Institut. Mech. Eng. Part B: J. Eng. Man.- 2010.- Т. 224.- С. 733-738.



94. Tsao C. C. Prediction of thrust force of step drill in drilling composite material by Taguchi method and radial basis function network/ C. C. Tsao // International Journal of Advanced Manufacturing Technology.- 2008.- T. 36.- C. 11-18.
95. Kadi H. Modeling the mechanical behavior of fiber reinforced polymeric composite materials using artificial neural networks – a review./ H. Kadi // Composite Structures.- 2006.- T. 73.- C. 1-23.
96. On the machining of fiber reinforced plastic (FRP) composite laminates/ N. Bhatnagar, N. Ramakrishnan, N. K. Naik, R. Komanduri // Int. J. of Machine tools & Manufacture.- 1995.- T. 35.- C. 701-716.
97. Tsao C. C. Evaluation of thrust force and surface roughness in drilling composite material using Taguchi analysis and neural network/ C. C. Tsao, H. Hocheng // Journal of Materials Processing Technology.- 2008.- № 203.- C. 342-348.
98. Tsao C. C. Taguchi analysis of delamination associated with various drill bits in drilling of composite material/ C. C. Tsao, H. Hocheng // Int. J. of Machine tools & Manufacture.- 2004.- T. 44.- C. 1085-1090.
99. Hocheng H. Comprehensive analysis of delamination in drilling of composite materials with various drill bits/H. Hocheng, C. C. Tsao // Journal of Materials Processing Technology.- 2003.- № 140.- C. 335-339.
100. Jain S. Effects of feedrate and chisel edge on delamination in composites drilling/ S. Jain, D. C. Yang // Trans. ASME.- 1993.- T. 115.- C. 398-405.
101. Sadat A. B. Prediction of delamination load in drilling of graphite/epoxy composites/ A. B. Sadat // Engineering Systems Design and Analysis.- 1996.- T. 3.- C. 21-26.
102. Puw H. Y. Anisotropic chip formation models of cutting of FRP/ H. Y. Puw, H. Hocheng // Proceedings of ASME Symposium on Material Removal and Surface Modification Issues in Machining Processes.- New York, 1995.- C. 0-0.
103. Arola D. Orthogonal cutting of fiber-reinforced composites: a finite element analysis/ D. Arola, M. Ramulu // Int. J. of Mechanical Science.- 1997.- T. 39.- C. 597-613.
104. Mackerle J. Finite element analysis and simulation of machining: an addendum. A bibliography 1996-2002/ J. Mackerle // Int. J. of Machine tools & Manufacture.- 2003.- T. 43.- C. 103- 114.

105. Mahdi M. A finite element model for the orthogonal cutting of fiber - reinforced composite materials/ M. I. Mahdi, L. A. Zhang // *Jornal of Materials Processing Technology.*- 2001.- T. 113.- C. 373-377.

106. Durão L. M. Numerical simulation of the drilling process on carbon/epoxy composite laminates/ L. M. Durão, M. F. De\_Moura, A. T. Marques // *Composites.*- 2006.- № 37.- C. 1325-1333.

107. Durão L. M. Numerical prediction of delamination onset in carbon/epoxy composites drilling/ L. M. Durão, M. F. De\_Moura, A. T. Marques // *Engineering Fracture Mechanics.*- 2008.- T. 75.- C. 2767-2778.

108. Budan D. A. Quality Assessment and Delamination Force Evaluation in Drilling of Glass Fiber Reinforced Plastic Laminates—A Finite Element Analysis and Linear Elastic Fracture Mechanics Approach/ D. A. Budan, S Vijayarangan // *Journal of Engineering Manufacture.*- 2002.- T. 216.- C. 173-182.

109. Zitoune R. Numerical prediction of the thrust force responsible of delamination during the drilling of the long fibre composite structures/ R. Zitoune, F. Collombet // *Composites.*- 2007.- T. 38.- C. 858-866.

110. Analytical models of composite material drilling/ P. Rahmé, Y. Landon, F. Lachaud, R. Piquet // *International Journal of Advanced Manufacturing Technology.*- 2011.- T. 52, № 5.- C. 609-617.

111. Bhattacharya D. A Study of Hole Drilling in Kevlar Composites/ D. Bhattacharya, D. P. Horrigan // *Composites Science and Technology.*- 1998.- T. 58, № 2.- C. 267-283.

112. Singh I. Drilling of Uni-Directional Glass Fiber Reinforced Plastics: Experimental and Finite Element Study/ I. Singh, N. Bhatnagar, P. Viswanath // *Materials & Design.*- 2008.- T. 29, № 2.- C. 546-553.

113. Delamination in Fiber Reinforced Plastics: A Finite Element Approach/ P. K.Rakesh, V. Sharma, I. Singh, D. Kumar // *Engineering.*- 2011.- № 3.- C. 549-554.

114. Böhm A. FEM-Simulation der Bearbeitung von Faserverbundwerkstoffen mit Hilfe von LS-Dyna/ A. Böhm.- Stuttgart: University of Stuttgart, 2010.- 123 c.

115. Calzada K. Modeling and interpretation of fiber orientation-based failure mechanisms in machining of carbon fiber-reinforced composites: дис. канд. техн. наук : K. Calzada.- Urbana, 2010.- 129 с.
116. Rao G. V. Micro-mechanical modeling of machining of FRP composites – Cutting force analysis/ G. V. Rao, P. Mahajan, N. Bhatnagar // Composites Science and Technology.- 2007.- Т. 67, № 3.- С. 579-593.
117. Rao G. V. Machining of UD-GFRP composites chip formation mechanism/ G. V. Rao, P. Mahajan, N. Bhatnagar // Composites Science and Technology.- 2007.- Т. 67, № 11.- С. 2271-2281.
118. Analysis of Machining of FRPs Using FEM/ M. V. Ramesh, K. N. Seetharamu, N. Ganesan, M. S Sivakumar // Int. J. of Machine tools & Manufacture.- 1998.- Т. 38.- С. 1531-1549.
119. Nayak D. Machining studies of UD-FRP composites. Part 2: Finite element analysis/ D. Nayak, N. Bhatnagar, P. Mahajan // Machining Science and Technology.- 2005.- Т. 9.- С. 503-528.
120. Pramanik A. An FEM investigation into the behavior of metal matrix composites: Tool–particle interaction during orthogonal cutting/ A. Pramanik, L. C. Zhang, J. A. Arsecularatne // Int. J. of Machine tools & Manufacture.- 2007.- Т. 47.- С. 1497-1506.
121. Dandekar C. Multiphase Finite Element Modeling of Machining Unidirectional Composites: Prediction of Fiber Debonding and Damage/ C. Dandekar, Y. C. Shin // Machining Science and Technology.- 2008.- Вып. 5.- Т. 130.- С. 0-0.
122. Wang D. Orthogonal cutting mechanisms of graphite/epoxy composite.: Part I: Unidirectional laminate./ D. H. Wang, M. Ramulu, D. Arola // Int. J. of Machine tools & Manufacture.- 1995.- Т. 35.- С. 1623-1638.
123. Rahman M. A Review on High-Speed Machining of Titanium Alloys/ M. Rahman, Z. G. Wang, Y. S. Wong // JSME International Journal: Series III.- 2006.- Т. 49, № 1.- С. 11-20.
124. Розенберг А. М. Элементы теории процесса резания Ст3/. А. М. Розенберг, А. Н. Еремин. –М: Машгиз, 1956.- 319 с.

125. Лощинин, Ю.В. Теплоемкость промышленных титановых сплавов при температурах 50-1100 °С /Ю.В. Лощинин, В.А. Вертоградский, А.И. Ковалев, И.В. Фролкина, Теплоемкость промышленных титановых сплавов при температурах 50-1100 °С// Инженерно – физический журнал. -1980. -Т. XXXVIII. -№4. -С.1-10.

126. Михайловский, К.В. Разработка высокотеплопроводных полимерных композиционных материалов для космических конструкций/К.В. Михайловский, П.В. Просунцов, С.В. Резник. //Вестник МГТУ им. Н.Э. Баумана. Серия “Машиностроение”. -2012. -С 98-106.