

List of patents for inventions and utility models.

Patent holder: Virial Ltd.

1. Patent for the invention RU 2147393 (C1) «Electrically conducting textile and the method for realizing the same». Patent holder: Virial Ltd. Inventors: Avdeev O.V., Genusova T.N., Rumyantsev V.I. Application No. 99109276. Priority date: 29.04.1999. Date of patent: 10.04.2000.
2. Patent for the invention RU 2160224 (C1) «Method for production of pyrolytic boron nitride». Patent holder: Virial Ltd. Inventors: Sharupin B.N., Tupitsina E.V., Osmakov A.S., Mametyev R.Ju. Application No. 99120022. Priority date: 08.09.1999. Date of patent: 10.12.2000.
3. Patent for the invention RU 2167224 (C1) «Pyrolytic rhombohedral boron nitride and method for production thereof». Patent holder: Virial Ltd. Inventors: Sharupin B.N., Tupitsina E.V., Osmakov A.S., Mametyev R.Ju. Application No. 99120004. Priority date: 08.09.1999. Date of patent: 20.05.2001.
4. Patent for the invention RU 2179204 (C1) «Method for production of plates and/or foils of anisotropic pyrolytic boron nitride, a foil processed by the same method, a product featuring anisotropic pyrolytic boron nitride plate and/or foil stack and method for production thereof». Patent holder: Virial Ltd. Inventors: Sharupin B.N., Tupitsina E.V., Osmakov A.S., Mametyev R.Ju. Application No. 2000114307. Priority date: 08.06.2000. Date of patent: 10.02.2002.
5. Patent for the utility model RU 39169 (U1) «Ceramic slide bearing». Patent holder: Virial Ltd. Inventors: Radtsig N.M., Rumyantsev M.V., Vasilyev S.Yu., Kocherga L.N. Application No. 2004108338. Priority date: 15.03.2004. Date of patent: 20.07.2004.
6. Patent for the utility model RU 45800 (U1) «A component of ceramic plain thrust bearing». Patent holder: Virial Ltd. Inventors: Radtsig N.M., Rumyantsev M.V., Vasilyev S.Yu., Kocherga L.N., Kovelonov N.Yu. Application No. 2004139217. Priority date: 27.12.2004. Date of patent: 27.05.2005.

7. Patent for the utility model RU 48006 (U1) «Ceramic slide bearing». Patent holder: Virial Ltd. Inventors: Radtsig N.M., Rumyantsev M.V., Vasilyev S.Yu., Kocherga L.N. Application No. 2005104412. Priority date: 14.02.2005. Date of patent: 10.09.2005.
8. Patent for the utility model RU 48005 (U1) «A component of ceramic plain thrust bearing assembly». Patent holder: Virial Ltd. Inventors: Kocherga L.N., Rumyantsev M.V., Radtsig N.M., Vasilyev S.Yu. Application No. 2005107629. Priority date: 15.03.2005. Date of patent: 10.09.2005.
9. Patent for the utility model RU 51145 (U1) «A thrust component for fluid protection assembly for submersible oil-filled electrical motor». Patent holder: Virial Ltd. Inventors: Kocherga L.N., Rumyantsev M.V., Vasilyev S.Yu. Application No. 2005124324. Priority date: 26.07.2005. Date of patent: 27.01.2006.
10. Patent for the invention RU 2396232 (C1) «A boron carbide-based ceramic material and method for production thereof». Patent holder: Virial Ltd. Inventors: Rumyantsev V.I., Korablev D.V., Fishchev V.N., Ordanyan S.S. Application No. 2009114561. Priority date: 10.04.2009. Date of patent: 10.08.2010.
11. Patent for the invention RU 2415109 (C1) «A nanostructured ceramic matrix composite material and method for production thereof». Patent holder: Virial Ltd. Inventors: Rumyantsev V.I., Sapronov R.L., Mekh V.A. Application No. 2009143024. Priority date: 17.11.2009. Date of patent: 27.03.2011.
12. Patent for the invention RU 2428395 (C1) «A nanostructured functionally graded composite material and method for production thereof». Patent holder: Virial Ltd. Inventors: Rumyantsev V.I., Sapronov R.L., Mekh V.A., Suvorov S.A. Application No. 2009144010. Priority date: 20.11.2009. Date of patent: 10.09.2011.
13. Patent for the invention RU 2457192 (C1) «A ceramic matrix composite material with reinforcing component and method for production thereof». Patent holder: Virial Ltd. Inventors: Rumyantsev V.I., Sapronov R.L., Mekh V.A. Application No. 2010138421. Priority date: 10.09.2010. Date of patent: 27.07.2012 (Included into the list of “100 best Russian inventions of 2012”, with respective diploma awarded).

14. Patent for the utility model RU 133033 (U1) «Tangential indexable cutting insert». Patent holder: Virial Ltd. Inventors: Mikhajlov S.V., Beschenkov G.I., Kovelonov N.Yu. Application No. 2013123893. Priority date: 16.05.2013. Date of patent: 10.10.2013.
15. Patent for the invention RU 2525538 (C1) «Wear-resistant nanostructured ceramic composite material and method for production thereof» Patent holder: Virial Ltd. Inventors: Dyatlova J.G., Osmakov A.S., Ordanyan S.S., Fishchev V.N. Application No. 2013136730. Priority date: 02.08.2013. Date of patent: 23.06.2014 (Included into the list of “100 best Russian inventions of 2014”, with respective diploma awarded).
16. Patent for the invention RU 2576745 (C1) «A cBN-based nanostructured composite material and method for production thereof». Patent holder: Virial Ltd. Inventors: Bulatov O.N., Korableva N.Yu., Ponomarenko V.A., Kovelonov N.Yu., Kuznetsova I.A. Application No. 2015108459. Priority date: 10.03.2015. Date of patent: 10.02.2016.
17. Patent for the invention RU 2621241 (C1) «A boron carbide-based nanostructured composite material and method for production thereof». Patent holder: Virial Ltd. Inventors: Ovsienko A.I., Rummyantsev V.I., Ordanyan S.S., Fishchev V.N. Application No. 2016107940. Priority date: 02.03.2016. Date of patent: 01.06.2017.
18. Patent for the utility model RU 178490 (U1) «Indexable cutting insert». Patent holder: Virial Ltd. Inventors: Mikhajlov S.V., Kovelonov N.Yu., Bolotskikh S.V. Application No. 2017147105. Priority date: 27.12.2017. Date of patent: 05.04.2018.
19. Patent for the invention RU 2667452 (C1) «Method for production of nanosized tungsten carbide powder». Patent holder: Virial Ltd. Inventors: Semenov O.V., Golub A.V., Fedorov D.V., Rummyantsev V.I. Application No. 2017134230. Priority date: 29.09.2017. Date of patent: 19.09.2018.
20. Patent for the utility model RU 185740 (U1) «Indexable cutting inserts». Patent holder: Virial Ltd. Inventors: Mikhajlov S.V., Kovelonov N.Yu., Mikhajlov A.S., Belyakov A.M. Application No. 2018120971. Priority date: 01.06.2018. Date of patent: 17.12.2018.

21. Patent for the invention RU 2675875 (C1) «Charge mixture for production of the tungsten carbide based sintered cemented carbide». Patent holder: Virial Ltd. Inventors: Semenov O.V., Fedorov D.V., Rumyantsev V.I. Application No. 2018122546. Priority date: 09.06.2018. Date of patent: 25.12.2018.

22. Application for patent RU 2018133565 (A) «Tungsten carbide based sintered cemented carbides and method for production thereof». Applicant: Virial Ltd. Inventors: Semenov O.V., Fedorov D.V., Rumyantsev V.I. Date of filing: 12.09.2018.