

	<p>БЪЛГАРСКА АКАДЕМИЯ НА НАУКИТЕ</p>
	<p>ИНСТИТУТ ПО МЕТАЛОЗНАНИЕ, СЪОРЪЖЕНИЯ И ТЕХНОЛОГИИ С ЦЕНТЪР ПО ХИДРО - И АЕРОДИНАМИКА „Акад. Ангел Балевски“</p>

Списък на публикациите във връзка с договор ДН 07/8 от 15.12.2016 г. с ФНИ към конкурс за финансиране на фундаментални научни изследвания -2016 г.

**Тема: “Фазо - и структурообразуване на композитни покрития от хром
с нанодиаманти върху спечени железни прахове и алуминиеви
сплави”**

Р-л на научния колектив: доц. д-р инж. Владимир Петков Петков

ИМСТЦХА „Акад. А. Балевски“ – БАН

София, юни 2020 г.

1. Gidikova N., E. Salamci, R. Valov, V. Petkov, R. Unal, “Effect of nanodiamonds modification of chromium coating on sintered ferrous materials”, Journal of Material Science and Technology, Vol. 25, No. 2, 2017, pp. 80–85, ISSN 0861-9786.
2. N. Zoghipour, E. Salamci, R. Unal, N. Gidikova, R. Valov, V. Petkov, Synthesis, characterization and tribological studies of Chromium-Nano diamond composite coating, 3-rd Int. Iron & Steel Symposium, Apr. 2017, Karabuk University, Turkey, Proceedings UDCS’17, №103, p.301-306.
3. Gidikova N., R. Valov, V. Petkov, M., E. Salamci, R. Unal, “Electrolyte Coatings of Chromium with Nanodiamonds on Sintered Materials of Iron Powders”, Transactions of Foundry Research Institute, Vol. 57 (2017), No 4, 333-336
4. Seminar: “The evaluation of the possibilities to enhance the durability of sintered ferrous products with different chemical composition by deposition of metal and nonmetal coatings”, AGH, Crakow, Poland, 14-20.05.2017, lecturers: Petkov V.,Valov R
5. Petkov V., R.Valov, M. Witkowska, M. Madej, G. Cempura, M. Sułowski, “Sintered steels coated with a chromium layer doped with diamond nanoparticles”, The XXII Physical Metallurgy and Materials Science Conference: Advanced Materials and Technologies AMT 2019, Bukowina Tatrzańska, Poland, June 9 – 12, 2019,
6. **Petkov V., R.Valov, M. Witkowska, M. Madej, G. Cempura, M. Sułowski, Sintered steels coated with a chromium layer doped with diamond nanoparticles”, Arch. Metall. Mater. V.64, (2019) №4, p.1633-1638, DOI:10.24425/amm. 2019.130137, IF 0.80, <http://www.imim.pl/archives/970>**
7. Petkov V., N.Gidikova, R.Valov, Sixth International Conference on Multifunctional, Hybrid and Nanomaterials, 15 march 2019, Sitges, Spain, “Structure and morphology of composite coating of chromium with diamond nanoparticles on sintered steels”
8. Petkov V., R.Valov, „Structure and morphology of composite coating of chromium with diamond nanoparticles on sintered steels”, SN Appl. Sci.(2019) V.1, №12: 1546. <https://doi.org/10.1007/s42452-019-1616-8>, Print ISSN 2523-3963, Online ISSN 2523-3971, <https://link.springer.com/journal/42452/1/12/page/3>
9. Petkov V., R. Valov, V. Dyakova, Yo. Kostova, M. Sulowski „Corrosion Resistance Study of Coatings of Chromium with Nanodiamonds on Sintered Steel with Different Carbon Concentration”, XXXIV International conference NDT Days 2019”, 17 - 21.06.2019r. Sozopol, Bulgaria
10. Petkov V., R. Valov, V. Dyakova, Yo. Kostova, M. Sulowski „Corrosion Resistance Study of Coatings of Chromium with Nanodiamonds on Sintered Steel with Different Carbon Concentration, International Journal “NDT Days”, ISSN: 2603-4018 (print), 2603-4646 (online), v. II, issue 3, (2019), p. 314-320, <http://www.bg-s-ndt.org/journal/vol2/JNDTD-v2-n3-a10.pdf>
11. Petkov V., R. Valov, V. Dyakova, Y. Kostova, M. Sulowski High quality corrosion protection of sintered steel with chromium coating doped with diamond nanoparticles, II International Conference of Metals, Ceramics and Composites, 25th-27th september 2019, Varna

12. Petkov V., N. Gidikova, R. Valov, M. Witkowska, G.Cempura, „Preparation and structure of composite coatings of chromium and nanodiamonds on aluminum”, International Conference “NTD Days 2017”, Sozopol, Bulgaria, 12-16.06.2017
13. Petkov V., N. Gidikova, R. Valov, M. Witkowska, Gr.Cempura, “Preparation and structura of composite coatings of chromium and nanodiamonds on aluminum”, Scientific proceedings of STUME, “NTD Days 2017”, year XXV, №1(216) june 2017, p.191-193
14. Gidikova N., R. Valov, V. Petkov, M. Sulowski, M. Witkowska, G. Cempura “Nanocomposite Coatings of Chromium on Aluminum Alloys”, 1st INTERNATIONAL CONFERENCE ON METALS, CERAMICS AND COMPOSITES, 14-16 september 2017, “Sts Constantine and Helena Resort”, Varna, Bulgaria
15. Gidikova N., R. Valov, V. Petkov, M. Sulowski, M. Witkowska, G. Cempura “Nanocomposite Coatings of Chromium on Aluminum Alloys”, Transactions of the foundry research institute, V. LVII, (2017), №4, p.241-244, ISSN (print version) 1899 - 2439 <http://prace.iod.krakow.pl/>
16. Petkov V., N. Gidikova, R. Valov, M. Sulowski, M. Madej, “Mechanical properties of composite coatings of chromium and nanodiamonds on aluminum”, International Conference “NTD Days 2017”, Sozopol, Bulgaria, 12-16.06.2017
17. Gidikova N., M. Sulowski, M. Madej, R. Valov, V. Petkov, „Mechanical properties of composite coatings of chromium and nanodiamonds on aluminum”, MATEC Web of Conferences, 145, 05012, (2018), NCTAM 2017, <https://doi.org/10.1051/matecconf/201814505012>
18. N. Gidikova, V. Petkov, M. Sulowski, R. Valov, M.Madej, “Tribological Behavior of Chromium Coating, Modified with Diamond Nanoparticles, on Aluminum Substrate”, International Conference “NTD Days 2018”, Sozopol, Bulgaria, 04-08.06.2018
19. Gidikova N., V. Petkov, M. Sulowski, R. Valov, M. Madej, “Tribological Behavior of Chromium Coating, Modified with Diamond Nanoparticles, on Aluminum Substrate”, International Journal “NDT Days” ,Volume 1, Issue 3, Year 2018, p.330-336, , ISSN: 2603-4018 (print), 2603-4646 (online), <http://www.bg-s-ndt.org/journal/vol1/JNDTD-v1-n3-a09.pdf>
20. Seminar: “The effect of application of metal and nonmetal coatings on the performance of aluminum, steel and sintered products”, AGH, Cracow, May 14-18, 2018, lecturers; Petkov V.,Valov R
21. Petkov V., R. Valov, L. Lakov, St. Asenov, M. Alexandrova, B. Jivov, Preparation and Morphology of Chromium Coating with Diamond Nanoparticles on Aluminums alloys, XXXIV International Conference “NTD Days 2019”, Sozopol, Bulgaria , 17 - 21.06.2019
22. Petkov V., R. Valov, L. Lakov, St. Asenov, M. Alexandrova, B. Jivov, „Preparation and Morphology of Chromium Coating with Diamond Nanoparticles on Aluminums alloys”, International Journal "NDT Days", ISSN: 2603-4018 (print), 2603-4646 (online), v. II, issue 3, (2019), p. 307-313
- 23. Петков В., Р. Вълов, Заявка за патент - Вх. № 112884/ 21.02.2019, „Метод за нанасяне на композитно покритие от хром върху алуминиеви сплави”**
- 24. Petkov V., S. Simeonova, M. Kandeva, R. Valov, “Characteristics and Properties of Chromium Coatings with Diamond Nanoparticles Deposited Directly on Aluminum Alloys”, In print, AFE-00754-2020-01, <https://www.editorialsystem.com/afe/>, IF – 0.80**