
PUBLICATIONS

1. P. Guba, A. J. Gesing, J. H. Sokolowski, A. Conle, A. Sobiesiak, M. Kasprzak, "Combined thermal, microstructural and microchemical analysis of solidification of Al₂₅Si₃Cu alloy," Archives of Materials Science and Engineering, vol. 85, no. 2, pp. 49–79, 2017.
2. P. Guba, A. J. Gesing, J. H. Sokolowski, A. Conle, A. Sobiesiak, M. Kasprzak, S.K. Das, "In-situ formed, low cost, Al-Si nanocomposite materials," Journal of Achievements in Materials and Manufacturing Engineering, vol. 84, no. 1, pp. 5–22, September 2017.
3. P. Guba, J. H. Sokolowski, A. Conle, A. Sobiesiak, A. Gesing, and S. K. Das, "In-situ formed , low cost Al-Si nanocomposite materials," in TMS 2018 Annual Meeting & Exhibition, Phoenix, Arizona, March 11-15, 2018 (Accepted).
4. P. Guba, "Development of Novel Nano-Single Si Phase Cast Hypereutectic Al-Si Alloys," PhD Dissertation, University of Windsor, Windsor, Ontario, Canada, 2015.
5. P. Guba, J. Hancin, J. Billy, "The density of particles in the nitride laser hardened layer," presented at the *Special technology '90*, Plzen, Czech Republic, 1990.
6. P. Guba, J. Hancin, V. Zabavnik, M. Pivonka, "Physical and metallurgical characteristics of nitride layers," presented at the *Collection of scientific papers of VST Kosice*, Kosice, Slovakia, 1989.
7. J. Bidlen, P. Guba, J. Hancin, "Hardening by laser of vacuum steamed surfaces of material 12061 and 10191 by titanium, aluminum, and titanium nitride," Hutnik, 1989.
8. P. Guba, J. Hancin, M. Pivonka, "Modern methods of structure evaluation and properties of laser hardened layers" presented at the *Young and new tends in the development of metallurgy*, Kosice, Slovakia, 1989.
9. J. Bidlen, J. Hancin, M. Pivonka, P. Guba, "Some information on the hardening of high-speed cutting steel made by laser" presented at the *Young and new trends of the development in metallurgy*, Kosice, Slovakia, 1989.
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11. J. Kocich, G. Janak, J. Sevcikova, P. Guba, V. Valo, "Pulsed current anodic oxidation of titanium alloys," Corrosion and protection of materials, vol. 33, no. 3, pp. 43-46, 1989.
12. P. Guba, "Hardening of nitride steel layers," PhD - dissertation paper, Technical University of Kosice, Kosice, Slovakia, 1989.
13. P. Guba, J. Hancin, V. Zabavnik, V. Mruz, "The effect of carbon content to the structure and properties of laser hardened nitride steel," presented at the *Non-conventional ways of steel's surface hardening*, Kosice, Slovakia, 1988.
14. P. Guba, J. Hancin, V. Zabavnik, V. Mruz, "Hardening of nitride steel by laser," presented at the *Non-conventional ways of steel's surface hardening*, Kosice, Slovakia, 1988.
15. J. Hancin, P. Guba, V. Mruz, J. Halasek, P. Stolar, "The structure and properties of laser hardened layers," presented at the *Non-conventional ways of steel's surface hardening*, Kosice, Slovakia, 1988.
16. V. Mruz, J. Hancin, P. Guba, "Contribution to the thermal treatment by laser of bearing steel," presented at the *Non-conventional ways of steel's hardening*, Kosice, Slovakia, 1988.
17. V. Zabavnik, J. Hancin, P. Guba, "Pulse hardening of nitride layers," presented at the *XII. National days of thermal treatment*, Strbske Pleso, Slovakia, 1988.
18. J. Hancin, P. Guba, V. Mruz, J. Honzik, "The study of the impacts on structure of the overlapping of laser hardened layers," presented at the *XII. National days of thermal treatment*, Strbske Pleso, Slovakia, 1988.

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 21. P. Guba, J. Hancin, V. Zabavnik, M. Pivonka, "Impacts of the speed of heating on the structure of hardened nitride layers," presented at the *Layers resistant to wear*, Gottwaldov, Czech Republic, 1989.
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PATENT

1. A. J. Gesing, P. Guba, J. H. Sokolowski, A. Conle, M. K. Alam, A. D. Jenner, G. Giovanatto, A. Sobiesiak, and M. Kasprzak, "IN-SITU PRODUCED MSIX COMPOSITES HARDENED BY ULTRAFINE SECOND PHASE DISPERSION IN METAL MATRIX STRENGTHENED BY ARTIFICIAL AGING WITH NANOSCALE COHERENT PRECIPITATES," U.S. 62579404, October 31, 2017 (Pending).