**Scientific profile of Bogdan Garbarz**

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Professor Bogdan GARBARZ (DSc, PhD) currently holds a post of the head of Department of Manufacturing Technology and Application of Products at Instytut Metalurgii Żelaza (Institute for Ferrous Metallurgy) in Gliwice, Poland. He graduated in metallurgy from AGH - University of Science and Technology of Kraków, in 1974. After receiving PhD degree he took a position of researcher at Instytut Metalurgii Żelaza. In years 1984-1987 prof. B. Garbarz completed post-doctoral studies at Sheffield Hallam University (then Sheffield City Polytechnic), UK, working on development of production technology of new grades of microalloyed structural steels. Since 1988 prof. B. Garbarz has been with Instytut Metalurgii Żelaza occupying various scientific and managing positions. Main areas of prof. B. Garbarz scientific and technological activities are:

- physical metallurgy of steel and iron-based alloys - in that development of nanostructured steels,
- design and modification of steel products for specific applications,
- continuous casting, hot rolling and forging,
- heat treatment of steel.

In recent years he and his research team have been working on the listed below subjects.

- Semi-industrial simulation of casting, hot rolling and thermo-mechanical processing of steel semi-products and products.
- Development of chemical compositions and processing parameters of nanostructured bainite-austenite steel grades.
- Aluminium alloyed (containing 3-5 wt % Al) high strength structural steels.
- HSLA for closed die forgings controlled cooled directly after forging.

List of publication illustrating the above described fields of research:

□ B.Garbarz, J.Marcisz : *Characterisation of Dispersed Nano-Sulphides Precipitated in Low Carbon Steel Solidified under High Rate of Cooling.* Steel Research Int. 79 (2008) (7) 523-529

□ B.Garbarz, W.Burian, D.Woźniak: *Semi-industrial Simulation of In-line Thermomechanical Processing and Heat Treatment of Nano-duplex Bainite-austenite Steel.* Steel Research International, Special Edition (2012) – 14-th International Conference Metal Forming 1251-1254

□ W.Burian, B.Garbarz, J.Marcisz, M.Adamczyk, A.Wiśniewski: *Nano-duplex bainitic-austenitic and nano-precipitates hardened steels for application in armors constructions.* Proc. of 27th International Symposium on Ballistics, Freiburg, Germany (2013) 1825-1832

□ B.Garbarz, W.Burian: *Microstructure and properties of nanoduplex bainite - austenite steel for ultra-high-strength plates.* Steel Research Int. 85 (2014) (12) 1620-1628

□ B.Garbarz, B.Niżnik-Harańczyk: *Modification of microstructure to increase impact toughness of nanostructured bainite-austenite steel.* Materials Science and Technology 31 (2015) (7) 773-780

□ B.Garbarz, J.Marcisz, W.Burian: *Technological peculiarities of manufacturing nanobainitic steel plates.*Proceedings of the METEC&ESTAD Conf. (CD, ISBN: 9783000495427), Düsseldorf, 15-19 June 2015

□ B. Garbarz, J. Marcisz: *Thermomechanical Processing of Al-Alloyed Structural Steel with Reduced Susceptibility to Copper Hot Brittleness.* Steel Research Int. 81 (2010) (9) 58-61

□ B.Garbarz, M.Adamczyk, B.Niżnik-Harańczyk: *Development of structural steel containing 3÷5 wt% Al with microlaminated microstructure.* Archives of Metallurgy and Materials 62 (2017) (4) 2309-2315