



Bio of Prof.-Dr. Andrey Dmitriev

Chief Researcher

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Biography

Andrey Dmitriev, 70, was Born in Village Elovo of the Perm Region (USSA, Russia). My father Nikolay Dmitriev since 1948 till 2001 worked on Joint-Stock Company «Severouralsk Bauxite Mines», obtaining bauxite on the world's largest deposit. He was educated Metallurgical Faculty of the Ural Polytechnic Institute (nowadays Ural Federal University, Ekaterinburg, Russia). The basic scientific direction is development and improvement of mathematical models and their use for the analysis and optimization of processes of working of ores. For the first time he has developed and has introduced a method of analytical research of blast furnace smelting on the basis of a complex of the two-dimensional mathematical models essentially supplementing experimental methods used in practice. He has developed scientific bases of application of computer methods for the analysis and perfection of pyrometallurgy processes. He has developed an original technique of the influence estimation of the iron ore raw materials and coke quality on indicators of the blast furnace smelting. He has developed an original technique – the monitoring system of the firebrick lining state of the blast furnace hearth intended for the emergencies prevention. Scientific ideas and development are used at creation and perfection of technologies of processing of the titaniferrous magnetite, chromic iron ores, silicate-nickel iron ores, siderite iron ores, leucoxene concentrates directed on the elimination of deficiency existing in Ural of the steel-making iron-ore raw material, the raw material for manufacture of pigment dioxide of the titan and scrap. The monitoring system of the firebrick lining state of the blast furnace hearth is developed and introduced on five blast furnaces of China. Implementation of the concept of commissioning of actually Kachkanarsky deposit of titanomagnetite ores along with use of ores of the Gusevogorsky deposit is offered and begun. Experience of the Institute of Metallurgy of the Ural Branch of the Russian Academy of Sciences (IMET UB RAS) in the field of processing of titanium containing iron ores is generalized and the creation concept in Russia productions of pigmentary titanium dioxide on the basis of South Ural deposits and the Komi Republic is offered. In addition to the scheme of processing of titanomagnetite iron ores of the Tebinbulak deposit (Republic of Uzbekistan) offered earlier «metallization – electrosmelting» is offered the scheme «blast furnace smelting – converter»; conditions of a choice and implementation of one of these schemes are formulated.

Dmitriev Andrey is the author of 8 monograph, 13 inventions and more than 350 articles. Participated as the lecturer (including invited lecturer) on many conferences including international. The head of post-graduate students.

Dmitriev received many important Russian and International awards and diplomas: the Silver Medal at the Metal-Expo'2014 in Russia; the Award of the Governor of Sverdlovsk Region, 2015; Diploma of 1 degree and the Gold Medal of the Petersburg Engineering Fair, 2016; the medal of Academy of engineering sciences named A.M. Prokhorov «For a contribution to development of engineering sciences», 2016; the order of Academy of engineering sciences named A.M. Prokhorov «For a contribution to development of engineering sciences», 2018.