

FIFTH INTERNATIONAL CONFERENCE «MATHEMATICAL MODELLING AND INFORMATION TECHNOLOGIES IN WELDING AND RELATED PROCESSES»

The 5th International Conference «Mathematical modelling and information technologies in welding and related processes» (MMITWRP-2010) took place in vil. Katsiveli (Crimea, Ukraine) at House of Creativity of Scientists of the NAS of Ukraine in May 25–28, 2010. It was organized by the National Academy of Sciences of Ukraine, E.O. Paton Electric Welding Institute of the NASU and Local Charity Foundation «Welding Community».

More than 60 specialists from Ukraine, Russia, Germany and Austria took part in the Conference work. The Conference was organized in the form of plenary and poster sessions, working languages of the Conference were Russian and English.

32 papers were presented during a period of the plenary session. The Conference was opened by academician of the NASU V.I. Makhnenko with review paper «Prospects of development of mathematical modelling and information technologies in welding and related processes» (E.O. Paton Electric Welding Institute of the NASU, Kiev, Ukraine), in which the results of mathematical modelling were considered ap-

Mathematical models and calculation algorithms of the heat, mass and electric transfer processes taking place in welding and special electrometallurgy processes were investigated in oral and plenary papers. The problems of modelling of the process of electrode metal drop formation; computational investigation of the effect of pulse laser-arc heat source on metal and other problems were also discussed.

The abstracts of papers together with program of the Conference work were published to the beginning of the Conference. Proceedings of the Conference will be published to the end of 2010. The collection of papers mentioned above as well as Proceedings of First–Fourth International Conference can be available from editorial board of «The Paton Welding Journal».

The Program and Organizing Committees of the Conference express their gratitude to the academicians of the NAS of Ukraine I.K. Pokhodnya and V.I. Makhnenko for permanent attention and support of young scientists which prepared approximately half of all papers, presented at the Conference.



plicable to such welding problems as solidification of liquid pool; two-phase zone theory; stability of microstructure of the primary solidification; criteria of weldability of modern steels and alloys; development of critical technologies in welding and related processes; prediction of a period of safe operation of welded units.

Modern means of mathematical modelling and possibilities of standard commercial packages were discussed in the paper.

The Conference was held in creative and friendly atmosphere and was concluded by a trip of the participants of the Conference to the peak of Ai-Petri mountain with visiting of Uchan-Su waterfall and walking along the sea-front in Yalta.

The next sixth international conference will be held in last decade of May, 2012.

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