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N. S. PRYADKO, G. A. STRELNIKOV

ИНФОРМАЦИОННАЯ ТЕХНОЛОГИЯ УПРАВЛЕНИЯ ТОНКИМ ИЗМЕЛЬЧЕНИЕМ
INFORMATION TECHNOLOGY OF CONTROL OF FINE GRINDING

The research aim is to define conditions for lowering in the power consumption of fine grinding in conditions of a necessary yield of the fine dispersion product, based on the results of acoustic monitoring for grinding using information technologies. The information technology for jet grinding is developed generalizing the research results. It allows the selection of optimal parameters for different materials and technological conditions with minimum initial experimental data of grinding acoustic monitoring. The main technological-acoustic operational criteria of the jet mill are determined resulting in the optimization of grinding. Based on technological, acoustic and power parameters of the mill operation in different dispersion areas of the final product, the method of power consumption evaluation is developed. Forecasting for mineral grinding using the simulation and information technologies results in reduction of its inertia and predicted control actions for providing the efficiency of production of fine dispersion powders.

Keywords: information technologies, jet grinding, criteria, acoustic monitoring, power consumption, efficiency.

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