
Prospects for obtaining fine powder using a pulsed electrical discharge in liquid

©Yu. Yu. Infimovsky, M.A. Stokov

Bauman Moscow State Technical University, Moscow, 105005, Russia

The authors examined the mechanisms of particle size reduction of minerals under pulsed electrical discharge in liquid. It is shown theoretically and experimentally that the direct effect of the shock wave of the discharge and cavitation at the free surface of the fluid are the main mechanisms of crushing quartz particles with an initial size of less than 0.5 mm. The authors defined the fractional composition of the product of crushing and character of destruction.

Keywords: *electrohydraulic effect, pulse, discharge, liquid, crushing, grinding.*

Infimovsky Yu.Yu., Ph.D., Assoc. Professor of the Physics Department of Bauman Moscow State Technical University. Author of 4 publications on high-temperature superconductivity, electric discharge in the liquid. e-mail: inf-yura@yandex.ru

Stokov M.A., (b. 1990), Student of the Physics Department of Bauman Moscow State Technical University. Author of 2 publications on electrical discharge in a liquid. e-mail: makstokov@mail.ru