622.74

Selection and arrangement of crushing and grinding circuits, use of equipment and operation schedules are to be directed at the main object – the most complete selectivity in liberation of minerals. These objects may be achieved by the following means:

- Advanced methods of blast mining providing for generation of embryonic fractures in rock boulders;
 - Use of electric pulse disintegration on ore streams fed to the mills;
 - Use of impact (centrifugal) crushing at pre-grinding stages;
- Use of efficient break-up operations at upflow stages to produce crushed product of 10-16mm size.

Principal methods for intensification of ball grinding operation are discussed below.

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2. 3. [2, 3]. 4. 15 - 20 % [4]. 5. 55 – 75% 80 - 85% [5] 69 - 80% 59% 30 - 50%

, (45 – 47%) 6. 38 - 43% (70 . .)). 5 15), 15) 5 (), (15 (5)

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15 - 40(40 - 70)). 7. : Q = kL.[6], $Q = k L^n$, , n = 0.87(L) 0,5; n = 0.85L/D = 5. (D) L/D = 1 - 2; n = 0.84n = 0.85. : $Q_2 / Q_1 = (L_2/L_1)^{0.85}$. 8. 50 %. 50 % ((7 – 10%), II I

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621.785.95:666.3

The process of volume ionization in the quartzite, that arose at plasma-vibrostriking action upon minerals, was considered. It was shown, that the plasma-vibrostriking loading of materials resulted in the appearance of local regions with an anomalous Shottci effect.