

The Effect of the Parameters of the Grinding on the Characteristics of the Deposit Phosphate Ore of Kef Es Sennoun, Djebel Onk-Tebessa, Algeria

Authors : N. Benabdeslam, N. Bouzidi, F. Atmani, R. Boucif, A. Sakhri

Abstract : The objective of this study was to provide answers for a better understanding of the mechanisms involved during grinding. To obtain a phosphate powder, we carry out sieving - grinding circuits for each parameter influencing the process. The analysis of the average particle size of the different tests carried out served in the first place as a basis for the determination of the granulometric curve area, the characteristics and the granular coefficients, then the exploitation of the different results for the calculation of the energies consumed for the fragmentation of different ore types, the energy coefficients as well as the ability to grind. Indeed, a time of 5 to 10 minutes can be chosen as the optimal grinding time in a disc mill for a % in weight of the highest pass. However, grinding time can influence the granular characteristics of ore.

Keywords : characteristic granular, grinding, mineralogical composition, phosphate ore, parameters

Conference Title : ICMPCG 2018 : International Conference on Minerals Processing, Crushing and Grinding

Conference Location : Stockholm, Sweden

Conference Dates : July 12-13, 2018