

Abstract:

Grinding-classification produces ore slurries with proper concentration and size of particles, for flotation process, and meanwhile, a large amount of energy is consumed. Optimal control is benefit to stabilize the particle, maximize the throughput and save energies. However, due to the detection problems and the complexity of the process, there are still many difficulties to achieve the object in practice.

This presentation provides a comprehensive review and assessment of the commonly used control methods and current research progress in grinding operations. It also discusses the key challenges encountered in this field and briefly introduces our recent practices in control of a SABC grinding process.