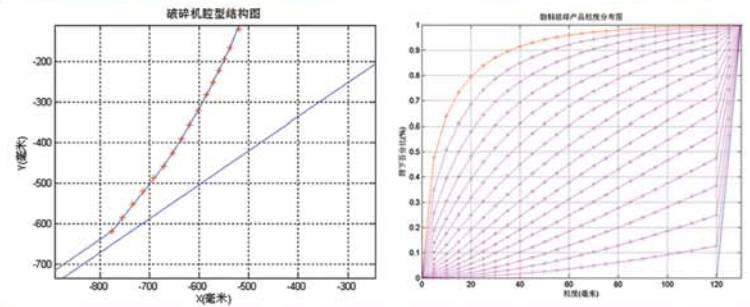


圆锥破碎机参数优化与性能仿真系统 Parameter Optimization and Performance Simulation System for Cone Crusher(CCOS)

几何模型

纹理模型



The purpose of this software development is to achieve the multi-objective optimization design for cone crusher based on the latest crushing theory.

Users can optimize cone crusher's main parameters such as cavern shape curve, precession angle, eccentricity and rotational speed. According to the optimized parameters, granular rocks crushing process can be visualized in a virtual environment. CCOS has five modules: demands management, simulation models management, parameters optimization, cone crusher mechanism motion simulation, cone crusher working process simulation. Two secondary modules are used to support working process simulation: one is rock geometric model generator; the other is rock dynamics computation.

CCOS is used as a computer aided design tool for new type of cone crusher; it also can be used for performance improvement for ordinary cone crusher.

系统开发是为解决基于新型层压原理的圆锥破碎机多目标优化设计问题。

用户可以通过该软件进行圆锥破碎机结构参数（腔型曲线、进动角、偏心距）和工作参数（转速）进行多目标优化建模与求解，并对优化结果进行沉浸感立体可视化仿真，依据可视化仿真结果可重新调整优化参数，从而提高破碎机生产率、改善破碎产品质量、优化破碎腔形、工作参数和结构参数。CCOS包含5个主要功能模块：需求管理；仿真模型管理；参数优化计算；破碎机机构仿真；破碎机工作性能仿真。另有两个辅助模块用于支持工作工程的可视化仿真：基于分形几何的石块动态建模；石块运动过程动力学计算。

CCOS主要用于新型层压圆锥破碎机开发的辅助设计，也可用于现有非层压圆锥破碎机性能改进的结构参数确定。