基于深度自编码网络的激光制导混合信号分选系统设计

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摘　要：针对当前设计方法无法实现激光制导混合信号准确分选的问题，提出一种基于度自编码网络的激光制导混合信号分选系统设计方法，设计了包括激光制导信号接收、处理、分选、合并编批以及分选结果发送模块，形成了一套完整的系统软件操作流程；并对包含译码电路、锁存电路、信号缓存电路、及激光制导信号上传电路，以及外围辅助电路的系统分选器进行设计，实现了激光制导混合信号分选系统最终设计.实验结果证明，所提方法能够准确实现普通激光制导信号以及包括载频信号、脉宽信号、重频信号三种特殊激光制导信号的分选.

关键词：　深度自编码网络；激光制导；混合信号；分选；系统设计

Design of laser guidance mixed signal sorting system based on deep self-encoding network

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Abstract：Aiming at the problem that the current design method cannot achieve accurate sorting of laser-guided mixed signals, a design method of laser-guided mixed-signal sorting system based on self-coding network is proposed. and the design is based on this Including laser guidance signal receiving, processing, sorting, merger batching and sorting result sending module, forming a complete system software operation flow; and including decoding circuit, latch circuit, signal buffer circuit, and laser Guided signal uploading circuits and system selectors for peripheral auxiliary circuits are designed to achieve the final design of the laser-guided mixed-signal sorting system. Experimental results show that the proposed method can accurately achieve the sorting of general laser guidance signals and three special laser guidance signals including carrier frequency signals, pulse width signals and heavy frequency signals.

Key words：　Depth self-encoding network; Laser guidance; Mixed signal; sorting; system design

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