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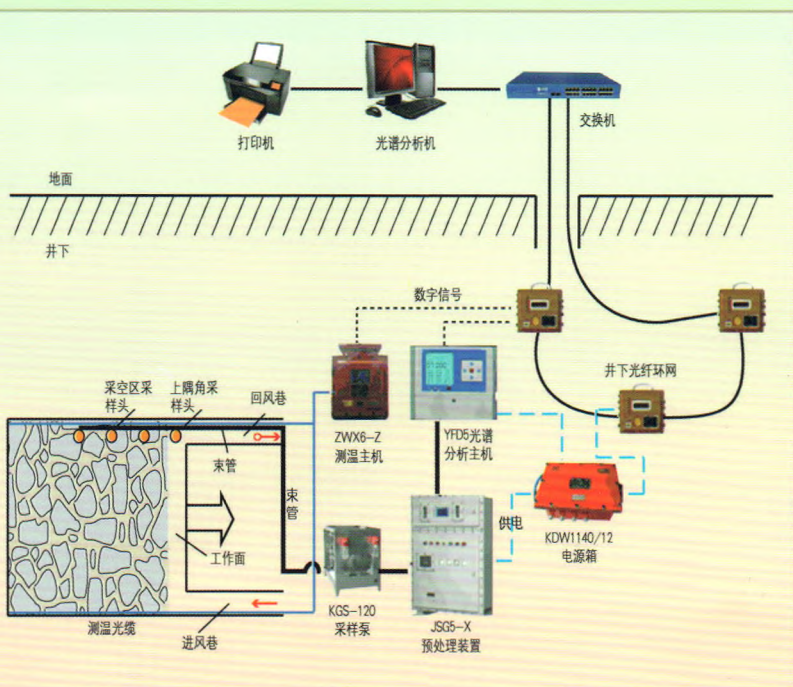
煤科集团沈阳研究院有限公司

主办

1970年创刊·月刊

井下自然发火综合监测系统

井下自然发火综合监测系统采用光谱气体分析和光纤测温技术，解决了气体长距离传输气样变化的难题，乙烯监测精度可达 10^{-7} 。主体设备为本质安全型，配套设备完善，可结合历史数据综合分析，预警准确、安全性好、可靠性高，可与防灭火装备联动，实现了管控一体化和自动化，体现了“预防为主”的自燃火灾防控原则，已成功应用于神华、陕煤、龙煤等多家大中型煤炭企业。



系统参数

分析气体种类	测量范围	允许误差
光纤测温参数	测温距离/km: 8	
	测温精度/ $^{\circ}\text{C}$: ± 1	
	测温分辨率/m: ± 1	
	测温通道数/路: 6	
甲烷/%	0~1.0	± 0.06
	1.0<~100.0	真值的 $\pm 6\%$
一氧化碳浓度/ 10^{-6}	0~100	± 4
	100<~500	真值的 $\pm 5\%$
	500<~10 000	真值的 $\pm 10\%$
二氧化碳浓度/%	0~0.50	± 0.02
	0.50<~20.0	$\pm (0.05 + \text{真值的} 5\%)$
氧气浓度/%	0~25.0	$\pm 3\% \text{ F.S}$
乙烯浓度/ 10^{-6}	0~2.0	± 0.5
	2.0<~100.0	$\pm (0.5 + \text{真值的} 10\%)$

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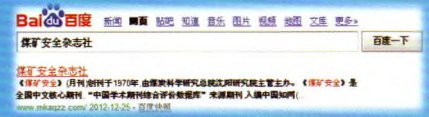
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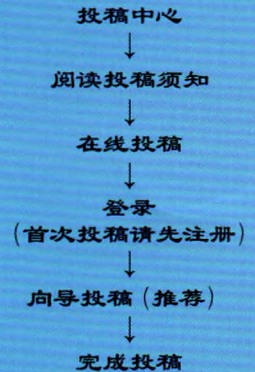
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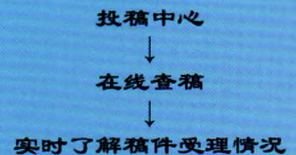
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性能特征

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