



## **Technologies of monitoring, alerting and controlling for coal fires in China**

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Coalfield fire has become a global disaster, especially in China, which lost a large number of coal resources every year, and caused serious destruction of ecological environment. Coalfield fire area has become urgent to solve the problem for the complex, combustion long-time, wide range, fire source hidden, and controlling difficultly in the formed evolution process. At present, surface coal fire areas prospecting technology mainly have visible light on surface, surface radar remote sensing technology, air ground integration technology. Detecting hidden fire source technology are infrared thermal imaging technology, method of radon-test. The technologies of monitoring and early warning for fire areas with ad-hoc, intelligent monitoring for infrared thermal imaging real time networks are applied. The idea of district controlling as "prevention-control-extinguishing" is established and in-site applications, which the technologies and equipment of fire prevention and extinguishment include the inorganic filling plugging, liquid carbon dioxide, and series of colloidal materials.