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# Safety evaluation of combustion-prone longwall mining gobs induced by gas extraction: A simulation study

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## Graphical abstract

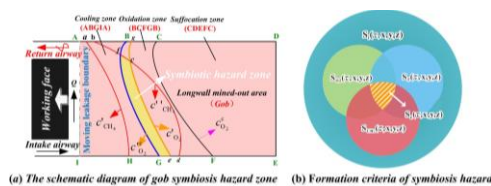


Fig. 1I Formation zone and criteria of coal-gas symbiosis hazard in longwall mining gobs

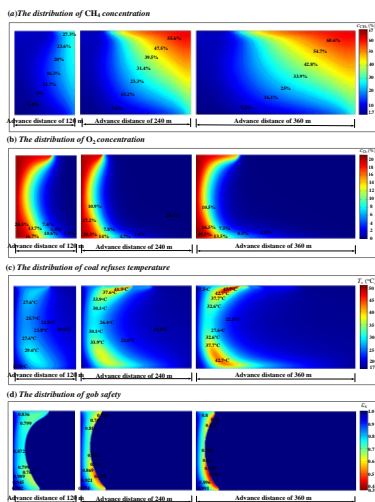


Fig. 1II Evolutions of oxygen and methane concentration, coal refuses temperature and gob safety degree under different advance distances

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