# Article information:

煤与瓦斯突出冲击波穿越门墙孔洞能量耗散规律及安全尺寸 - 中国知网
[https://kns-cnki-net-s.vpn.cumtb.edu.cn:8118/kcms2/article/abstract?v=3uoqIhG8C44YLTlOAiTRKibYlV5Vjs7iJTKGjg9uTdeTsOI\_ra5\_Xd9cBfanzETx84-SFwWg9R8IZZfitwMoOD7g8jvsKGOs=NZKPT](https://kns-cnki-net-s.vpn.cumtb.edu.cn:8118/kcms2/article/abstract?v=3uoqIhG8C44YLTlOAiTRKibYlV5Vjs7iJTKGjg9uTdeTsOI_ra5_Xd9cBfanzETx84-SFwWg9R8IZZfitwMoOD7g8jvsKGOs&uniplatform=NZKPT)

# Article summary:

1. This article examines the energy dissipation rules and safety dimensions of coal and gas outburst shock waves passing through anti-outburst doors.

2. The results show that the shock wave mainly propagates in the straight roadway, and its speed, overpressure and outburst pressure are positively correlated.

3. It is recommended that the safety size of anti-outburst doors should be set to less than 15 mm, and corresponding anti-backflow devices should be installed in branch roadways when they are close to anti-outburst doors.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

This article from China Knowledge Network provides a comprehensive analysis of the energy dissipation rules and safety dimensions of coal and gas outburst shock waves passing through anti-outburst doors. The article is based on physical experiments and numerical simulations conducted under different conditions, such as different outburst pressures and sizes of anti-outburst doors. The article presents a detailed analysis of the propagation laws of shock waves in roadways and through anti-outburst doors, as well as an assessment of the relationship between outburst overpressure and human injury criteria to determine safe door sizes.

The article appears to be reliable overall, with no obvious biases or unsupported claims present in its content. All claims made by the authors are supported by evidence from physical experiments or numerical simulations, which makes it trustworthy for readers who wish to learn more about this topic. Furthermore, all possible risks associated with using smaller door sizes have been noted in the article, making it clear that further research may be needed before any changes can be implemented safely.

In terms of potential improvements, it would have been beneficial if the authors had explored counterarguments or presented both sides equally when discussing their findings. Additionally, while promotional content was not present in this article, it could have been useful if some had been included to provide readers with additional information about how their findings could be applied in practice.

# Topics for further research:

* Coal and gas outburst safety
* Shock wave propagation laws
* Human injury criteria
* Anti-outburst door sizes
* Outburst overpressure effects
* Numerical simulations of coal and gas outbursts

# Report location:

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