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煤层气及天然气中的H₂S与SO₂及其危害性 [点此下载全文](#)

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摘要:

毒害性气体是影响煤层气和天然气质量及安全生产的一个重要因素,但目前缺乏对煤层气中H₂S与SO₂及其毒害性的系统性研究。本文在介绍H₂S和SO₂的毒害性及其机理的基础上,研究并讨论了煤层气及天然气中H₂S和SO₂的含量分布及其存在的主要问题、天然气和煤层气勘探开发中H₂S和SO₂的腐蚀性、毒性,提出在优选勘探开发煤层气区时,需考虑H₂S和SO₂的含量问题。气体中H₂S的安全临界含量近似值为0.0013%,SO₂的安全临界含量可选取为0.036%(尚需进一步研究)。另外,在煤层气勘探开发选区时,成煤期的沉积古地理环境可作为一个考虑因素。

关键词: [煤层气](#) [天然气](#) [毒害性气体](#) [H₂S](#) [SO₂](#)

Hazard of H₂S and SO₂ Contents in Coalbed Gas and Natural Gas [Download Fulltext](#)

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Abstract:

Toxic and harmful gas is a critical factor for the quality and safe production of coalbed gas and natural gas. Meanwhile, it is uncommon for systematic study on H₂S and SO₂ as well as their toxicology and harms in coalbed gas and natural gas. This paper studied the toxicity and its mechanism of H₂S and SO₂, carried research on the distribution of H₂S and SO₂ in coalbed gas and natural gas and related major problems, and analyzed and discussed the causticity and toxicity of H₂S and SO₂, along with related accidents, in exploration and the mining of natural gas and coalbed gas. The results strongly recommend that the content of H₂S and SO₂ be considered in coalbed gas areas for exploring and mining. Initial research has suggested that the safety threshold value is approximately 0.0013% for H₂S, and 0.036% for SO₂. Advanced research is in demand. In addition, the paleogeography deposition environment during the coal forming can serve as an index for selecting coalbed gas areas to explore and mine.

Keywords: [coalbed gas](#) [natural gas](#) [toxic and harmful gas](#) [H₂S](#) [SO₂](#)

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