

Accepted Manuscript

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PII: S0304-3894(17)30899-3
DOI: <https://doi.org/10.1016/j.jhazmat.2017.12.016>
Reference: HAZMAT 19048

To appear in: *Journal of Hazardous Materials*

Received date: 7-8-2017
Revised date: 5-11-2017
Accepted date: 6-12-2017

Please cite this article as: Zhao S, Mei J, Xu H, liu W, Qu Z, Cui Y, Yan N, Research of mercury removal from sintering flue gas of iron and steel by the open metal site of Mil-101(Cr), *Journal of Hazardous Materials* (2010), <https://doi.org/10.1016/j.jhazmat.2017.12.016>

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Research of mercury removal from sintering flue gas of iron and steel by the open metal site of Mil-101(Cr)

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Graphical Abstract

Hg⁰ removal in flue gas by the open metal site of Mil-101(Cr)

Highlights:

- Metal-organic frameworks adsorbent Mil-101(Cr) was introduced for Hg⁰ removal.
- Mil-101(Cr) has a higher Hg⁰ removal efficiency compared with UiO-66 and Cu-BTC.
- The open metal site of Mil-101(Cr) was important for Hg⁰ removal.

Abstract: Metal-organic frameworks (MOFs) adsorbent Mil-101(Cr) was introduced for the removal of elemental mercury from sintering flue gas. Physical and chemical characterization of the adsorbents showed that MIL-101(Cr) had the largest BET surface area, high thermal stability

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