

# Lead in Chinese villager house dust: Geographical variation

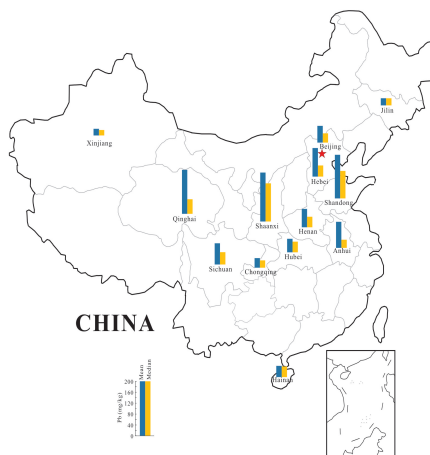
X. Y. BI<sup>1\*</sup>, J. L. LIU<sup>1</sup> AND Z. X. HAN<sup>2</sup>

<sup>1</sup>School of Earth Science, China University of Geosciences, Wuhan 430074, China (\*correspondence: bixy@cug.edu.cn)

<sup>2</sup>Institute of Geophysical and Geochemical Exploration CAGS, Langfang 065000, China

## Background

House dust has been recognized as a major source of Pb for children [1] [2]. In China, elevated blood lead levels (BLLs) have been noticed for children living in suburban and rural areas [3]. This situation necessitate an urgent need to investigate the occurrence of Pb in house dust and their contribution to daily Pb exposure of Chinese children. Here we conducted a extensive study to investigate the geographical variation of Pb in Chinese villager house dust.



**Figure 1:** Pb concentrations in Chinese villager house dust from different provinces

## Discussion of Results

The concentrations of Pb in Chinese villager house dust varied greatly among different provinces. Obvious elevated Pb was found in Anhui, Shandong and Shaanxi provinces, whereas relatively lower concentrations of dust Pb were observed in Chongqing, Hainan, Jilin and Xinjiang provinces. The dust Pb concentrations were independent of heating practices, dates of construction, building and decorative materials.

[1] Lanphear *et al.* (1998) *Environ Res* **79**, 51-68. [2] Gulson *et al.* (2014) *Environ Pollut* **191**, 38-49. [3] He *et al.* (2009) *Sci Total Environ* **407**, 3986-3993.