

Accepted Manuscript

Mechanisms of arsenic-containing pyrite oxidation by aqueous arsenate under anoxic conditions

Guohong Qiu, Tianyu Gao, Jun Hong, Wenfeng Tan, Fan Liu, Lirong Zheng

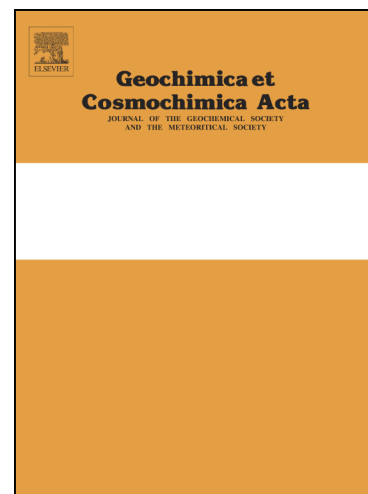
PII: S0016-7037(17)30522-7
DOI: <http://dx.doi.org/10.1016/j.gca.2017.08.030>
Reference: GCA 10435

To appear in: *Geochimica et Cosmochimica Acta*

Received Date: 15 January 2017

Please cite this article as: Qiu, G., Gao, T., Hong, J., Tan, W., Liu, F., Zheng, L., Mechanisms of arsenic-containing pyrite oxidation by aqueous arsenate under anoxic conditions, *Geochimica et Cosmochimica Acta* (2017), doi: <http://dx.doi.org/10.1016/j.gca.2017.08.030>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Mechanisms of arsenic-containing pyrite oxidation by aqueous arsenate under anoxic conditions

Guohong Qiu ^{a,*}, Tianyu Gao ^a, Jun Hong ^a, Wenfeng Tan ^a, Fan Liu ^a, Lirong Zheng ^b

^a Key Laboratory of Arable Land Conservation (Middle and Lower Reaches of Yangtse River), Ministry of Agriculture, College of Resources and Environment, Huazhong Agricultural University, Wuhan 430070, China

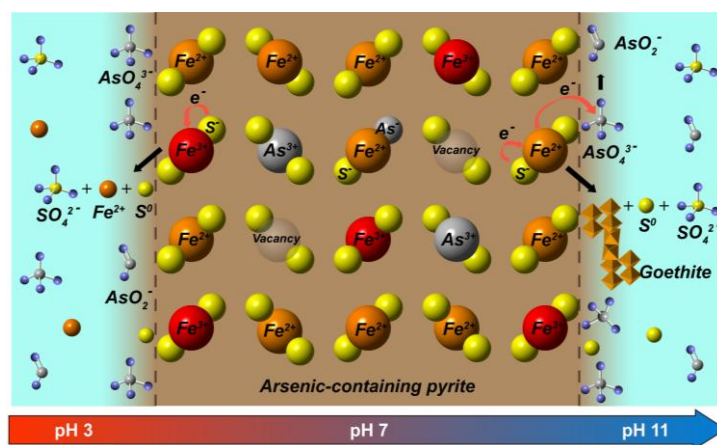
^b Beijing Synchrotron Radiation Facility, Institute of High Energy Physics, Chinese Academy of Sciences, Beijing 100039, China

* Corresponding author: Qiu GH, qiugh@mail.hzau.edu.cn

ToC Text

Arsenic-containing pyrites are prepared as the naturally surface-oxidized ones in supergene environments, and the introduction of arsenic increases the content of Fe(III) in pyrite. Fe(III) and aqueous As(V) are the main oxidants respectively in acid and alkaline solutions of arsenic-containing pyrite and arsenate.

ToC Graphic



Download English Version:

<https://daneshyari.com/en/article/5783092>

Download Persian Version:

<https://daneshyari.com/article/5783092>

[Daneshyari.com](https://daneshyari.com)