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## Calcium isotope fractionation in a silicate dominated Cenozoic aquifer system

Junxia Li<sup>a</sup>, Donald J. DePaolo<sup>b,c</sup>, Yanxin Wang<sup>a,\*</sup>, Xianjun Xie<sup>a</sup>

<sup>a</sup>*State Key Laboratory of Biogeology and Environmental Geology & School of Environmental Studies, China University of Geosciences, 430074 Wuhan, China*

<sup>b</sup>*Energy Geosciences Division, Lawrence Berkeley National Laboratory, Berkeley, CA 94720, USA*

<sup>c</sup>*Department of Earth and Planetary Science, University of California, Berkeley, CA 94720, USA*

\*Corresponding author. Tel: +86-27-67883998; Fax: +86-27-87481030; Email: [yx.wang@cug.edu.cn](mailto:yx.wang@cug.edu.cn) (Y. Wang)

**Abstract:** To understand the characteristics of Ca isotope composition and fractionation in silicate-dominated Quaternary aquifer system, hydrochemical and isotope studies ( $^{87}\text{Sr}/^{86}\text{Sr}$ ,  $^{13}\text{C}_{\text{DIC}}$  and  $^{44/40}\text{Ca}$ ) were conducted on groundwater, sediment and rock samples from the Datong basin, China. Along the groundwater flow path from the basin margin to the center, groundwater hydrochemical type evolves from Ca-HCO<sub>3</sub> to Na-HCO<sub>3</sub>/Na-Cl type, which results from aluminosilicate

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