

# ***Isolution***-A new freeware for isotopic data reduction

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Geochemical isotope tracers have been widely explored and have undergone continuous developments in the last a few decades. Various isotopic fractionation/mass bias correction models are used in the isotopic analysis to improve the accuracy and precision of the final isotope ratio results, however, the data reduction is complicated. In this study, a new software, *Isolution*, has been developed to handle various complex isotopic data reduction tasks. The software is able to visualize and process the isotopic data that are generated from a suite of isotopic fractionation correction models, including the internal normalization model, the standard sample bracketing model, the inter-element normalization model and the double-spike correction model. *Isolution* also provides interference and blank corrections. In addition, the software is able to implement the double-spike technique, including calibration and optimization of double-spike. Therefore, *Isolution* provides an opportunity to handle the isotopic data reduction in a single platform without the need of transfer data from one software to another. All the correction functions in the software are modularized, and only a few necessary parameter settings are required to achieve the complex data processing. All these features make *Isolution* one of the most complete software presently available for the solution based isotopic analysis for data reduction. This software can be obtained for free at <http://www.isolution.net.cn/>

