

Why MIF (Mass Independent isotopic Fractionation), now?

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[1] NONE

Since its introduction in the middle twenty centuries, isotopic study has been an unparalleled tool in tackling various problems in earth-planetary sciences. The major subjects of this discipline are, (1) geochronology with the use of radioactive/decay isotopes and (2) stable isotope geochemistry. Both are based on precise measurements of isotopic ratios in natural objects. Because of its fundamental importance, isotopic ratios in geochemistry may be compared to DNA in biochemistry. Here, I would like to emphasize that a new type of isotopic fractionation effect known as mass independent fractionation (MIF) may become a major breakthrough in isotope geochemistry.