Matter-element space analysis in isotope hydrology

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Abstract The progress of matter-element analysis application in hydrology and hydraulic engineering is introduced, and the relatively weak part that lacks the research of the hydrological/isotope hydrological mechanism is pointed out. In order to solve this problem, the concept “matter-element space” is proposed after consulting the Extenics and General Structure theory. Then the expression and the operation of the elements in the matter-element space and the corresponding physical meaning are discussed. Matter-element space’s theoretical frame for the laws’ description and disclosure of multidiscipline is presented. Finally, an example of applying the matter element space analysis in isotope hydrology demonstrates their validity.

Key words isotope hydrology; law; matter elements space