COLLISIONAL HISTORY OF THE FRENCH CHONDRITE FALLS (II)

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This work is a part of a systematic study of a set of 32 ordinary chondrites felt in France during the last 5 centuries, including four LL6, sixteen L6, four H4, seven H5 and one H4. First noble gas results concerning ten meteorites have been already presented by Lavielle and Gilabert [1]. We report new noble gas data and discuss the cosmic ray-exposure (CRE) history of the selected French chondrite falls. CRE ages are based on ^{3}He, ^{21}Ne and ^{38}Ar concentrations using the calibration proposed by Eugster [2]. Cosmogenic Kr and Xe components are determined in the investigated samples. CRE ages are also established using new ^{81}Kr measurements performed with the RIS-TOF instrument recently developed at CNAB [3]. In addition, retention ages T_4 and T_{40} based respectively on radiogenic ^{4}He and ^{40}Ar concentrations are also determined.

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References: [1] Lavielle B. and Gilabert E. (2002) *Meteoritics & Planet. Sci. Supp., 37, A85*. [2] Eugster O. (1988) *GCA, 52, 1649*. [3] B. Lavielle, E. Gilabert and B. Thomas (2007) *Meteoritics & Planet. Sci., Supp. 42, 5236.*