

## **Evidence of syntectonic microleucogranites in polymetallic district of Tighza (Central Morocco): Geodynamic implication**

K. Dachri<sup>1</sup>, T. Remmal<sup>1,\*</sup>, S. Makhoukhi<sup>1</sup>, T. Montoy<sup>2</sup>, L. Ouazzani<sup>2</sup>, M. Soufi<sup>1</sup>

<sup>1</sup>Laboratoire des Géosciences Appliquées à l'Ingénierie de l'Aménagement, Faculté des sciences Ain Chock, Université Hassan II Casablanca BP 5366, Maarif 20100 Casablanca, Morocco, <sup>2</sup>Compagnie Minière de Touissit (CMT), Tighza, Mriret, Morocco

\*E-mail : remmaltoufik@gmail.com

The lentiform microleucogranites highlighted in the polymetallic district of Tighza, situated on the path of major accidents, call into question the scenarios of the evolution of the magmatic activity in this area. The petrographic and structural petrology of these rocks are evidence of an establishment in transpressional regime controlled by a sinistral ductile shearing with sub-equatorial orientation. This result implies that such sinistral kinematic announced by mineralization of Pb-Zn-Ag (late Permian to early Triassic) could have occurred at an earlier period, from lower Permian. Plastic deformation recorded by minerals including quartz, feldspars and muscovite indicates the permanence of the deformation after emplacement of the magmatic body. Geochemical filiation of granitoids of Tighza is calc-alkaline monzonitic type. But the microgranites show an alumino-potassic character typical of a supracrustal source. The geotectonic context of emplacement of this magmatism is convergent in type with a declination to a syn-collisional type materialized by microgranites.

**Keywords:** microleucogranite, magmatism, late Hercynian, Tighza polymetallic district, Morocco