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Ksar Ghilane 002 – Magnetism, Raman and Moessbauer Spectroscopy

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Ksar Ghilane 002 was found in Tunisia and classified as a basaltic shergottite [1]. First magnetic data have been reported by [2]. Here we give an overview of all our data obtained on KG002: magnetic signature and record, mineralogy/phase composition, Micro Raman and Moessbauer spectroscopy. The magnetic signature, record and phase composition of KG002 was found to be nearly identical with that of NWA 2800 and Los Angeles 001/002 (see also [3,4,5]). Magnetite and Ti-rich titanomagnetite were found to be the dominating magnetic recorders in the case of the 3 Martian meteorites. The shock degree was determined by Micro Raman Spectroscopy applying the technique of [6] who proposed to evaluate the maskelynite /plagioclase peaks. In this way, a value of 40-45 GPa was found to represent the peak shock pressure for KG 002, NWA 2800 and LA 001/002.

[1] Roszjar J. et al., 2012. 43rd LPSC, #1780.

[2] Hoffmann V. et al., 2012. 75th Metsoc Conf., #5107.

[3] Irving A.: www.imca.cc/mars/martian-meteorites.htm

[4] Bunch T.E., et al., 2008. 39th LPSC, #1953.

[5] Mikouchi T., 2001. Antarct. Meteor. Res., 14, 1-20.

[6] Fritz J. et al., 2005. Antarct. Meteor. Res., 18, 96-116.

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