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Optical spectroscopic characterizations of laser irradiated olivine grains *(Corrigendum)*

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This is a corrigendum to Yang et al. (2017). There is a typo in the Fo (Mg-number) of the olivine sample. The Fo is defined as the molar ratio of Mg/(Mg+Fe). The chemical composition values listed in Table 1 are correct, but the calculated Fo# value should be 91. This has no effect on our results or conclusions. The revised table and paragraph are given below, with the revised parts highlighted in bold.

2. Materials and methods

2.1 Experimental procedure

Samples. Olivine, a common mineral found in many meteorites and S-type asteroids (e.g., Chapman 1996, 2004), was used as the analog material in this work. Natural pure olivine granules collected from Hebei Province, China, were first ground into a size distribution of 0–75 μm with a vibratory disc mill (VDM). The olivine powders were then sieved and those smaller than 45 μm were separated out as the target sample. The chemical compositions of these olivine powders were analyzed using the wet chemistry method. To ensure that no contaminations were introduced during the grinding process, compositional measurements were made on both the original samples and the powders processed with the VDM. The major element contents of these two samples, as summarized in Table 1, indicate that the grinding process did not introduce any contaminations of iron, and the Mg number of the olivine sample is **91** ($Fo_{\mathbf{91}}$).

Table 1. Chemical composition of the original and the VDM processed olivine samples.

Major elements	Original olivine (wt. %)	Olivine processed with VDM (wt. %)
SiO_2	40.660	40.980
Al_2O_3	0.340	0.230
TFe_2O_3 (*)	9.760	9.780
MgO	48.000	48.590
CaO	0.056	0.042
Na_2O	0.008	0.010
K_2O	0.004	0.003
TiO_2	0.011	0.005
P_2O_3	0.005	0.012
MnO	0.110	0.110
H_2O	0.040	0.040
Total	98.994	99.802
Fo# (**)	**91**	**91**

Notes. (*)Total iron; (**)Mg-number.

References

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