

Electronic Supplementary Information

Pressure-induced valence transition in the mixed-valence

$(\text{Sm}_{1/2}\text{Ca}_{1/2})_{2.75}\text{C}_{60}$ fulleride

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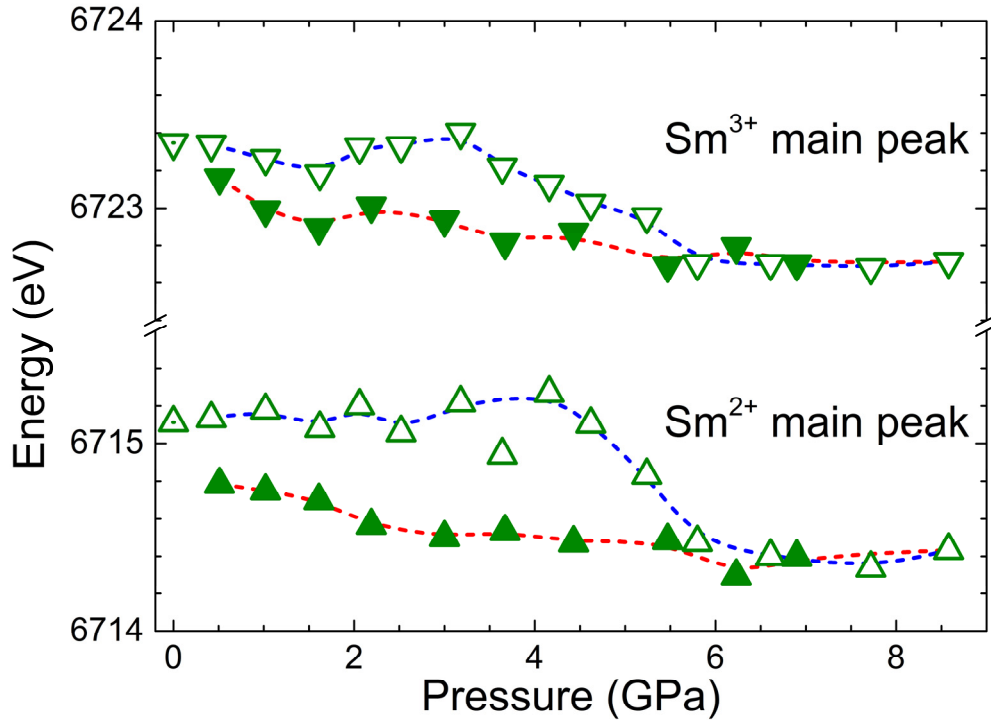


Fig. S1 Pressure dependence of the energies of the Sm²⁺ and Sm³⁺ main peaks as extracted from fits to the ambient temperature experimental PFY-XAS spectra of the (Sm_{1/2}Ca_{1/2})_{2.75}C₆₀ fulleride. Open (closed) symbols label data obtained upon pressure increase (decrease). The dotted symbols are the corresponding data at ambient pressure. Dashed lines through the data are guides to the eye. The energies of the three additional satellite sub-peaks used in the fits (Fig. 3) were kept fixed at 6713.43 (Sm²⁺), 6717.26 (Sm²⁺) and 6721.38 (Sm³⁺) eV.

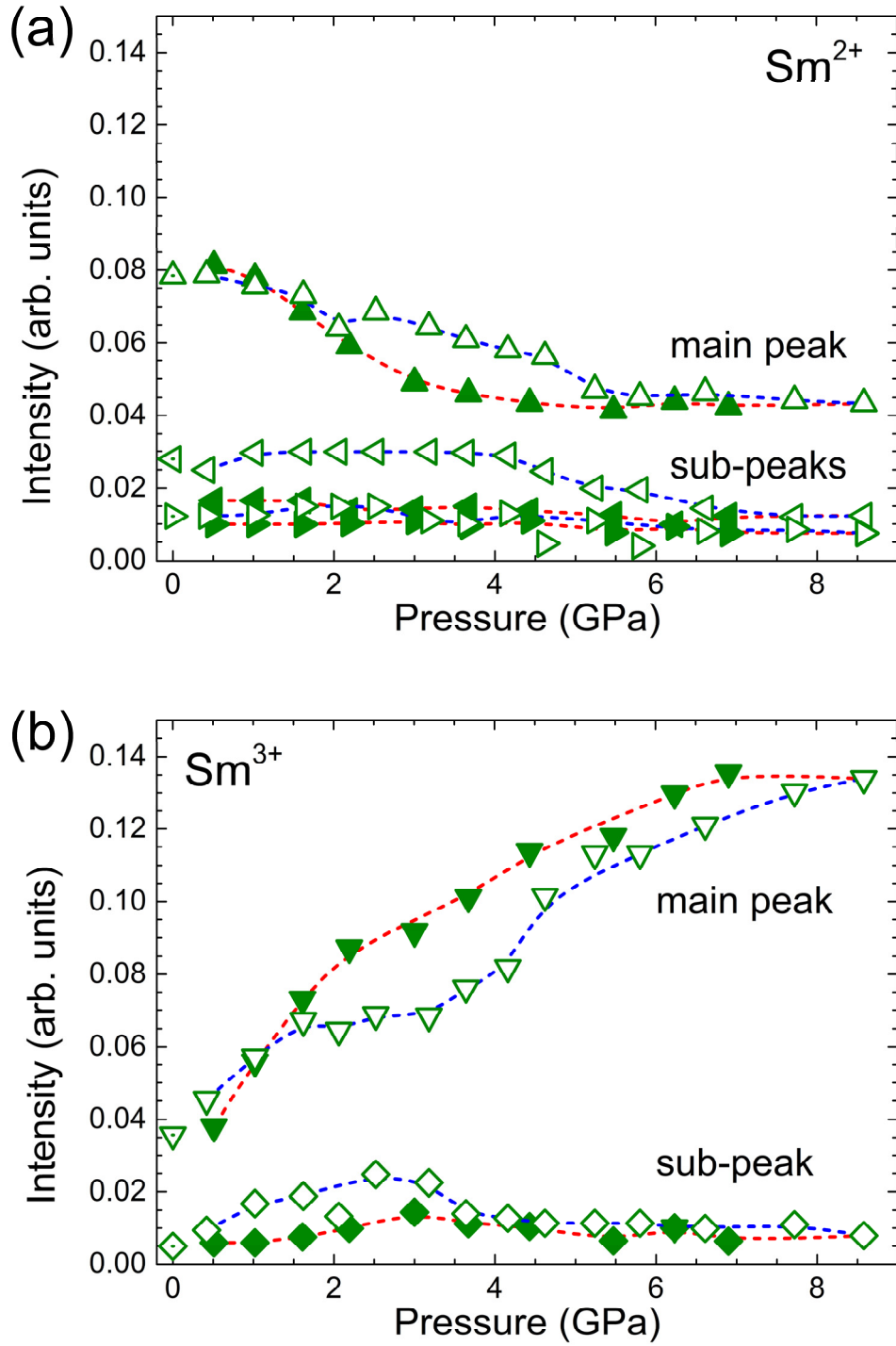


Fig. S1 Pressure dependence of the intensities of all Sm²⁺ and Sm³⁺ sub-peaks as extracted from fits to the ambient temperature experimental PFY-XAS spectra of the (Sm_{1/3}Ca_{2/3})_{2.75}C₆₀ fulleride. During the fitting procedure, only the widths of the main peaks were allowed to vary. Open (closed) symbols label data obtained upon pressure increase (decrease). The dotted

symbols are the points at ambient pressure. Dashed lines through the data are guides to the eye. The intensities of the 6713.43-eV (Sm^{2+}) subpeak are shown as left-pointing triangles, while those of the 6717.26-eV (Sm^{2+}) subpeak as right-pointing triangles.