**Supplementary material #1.** IR spectra of the [Pd(Cit)2] complex and the free ligand. The main IR bands are assigned in the spectra. An intense band at 1606 cm-1 and a band of medium intensity at 1415 cm-1 are observed in the spectrum of the L-citrulline, and they can be assigned to the asymmetric and symmetric stretching modes of the carboxylate group, respectively. In the [Pd(Cit)2] spectrum, the same bands are shifted: 1639 cm-1 for the asymmetric and 1364 cm-1 for the symmetric stretching modes. The observed results suggest the coordination of the carboxylate group to palladium(II). Since the difference between the asymmetric and symmetric stretching modes, ∆, is larger in the spectrum of the complex when compared to the ligand one (∆complex = 275 cm-1 and ∆ligand = 191 cm-1), a monodentate coordination of the carboxylate group through the oxygen atom is suggested. These results are in accordance with the crystallographic data of the Pd(II) complex.

