

# ***In vitro* cytotoxicity and antibacterial activity of [Pd(AMTTO)(PPh<sub>3</sub>)<sub>2</sub>]: a novel promising palladium(II) complex**

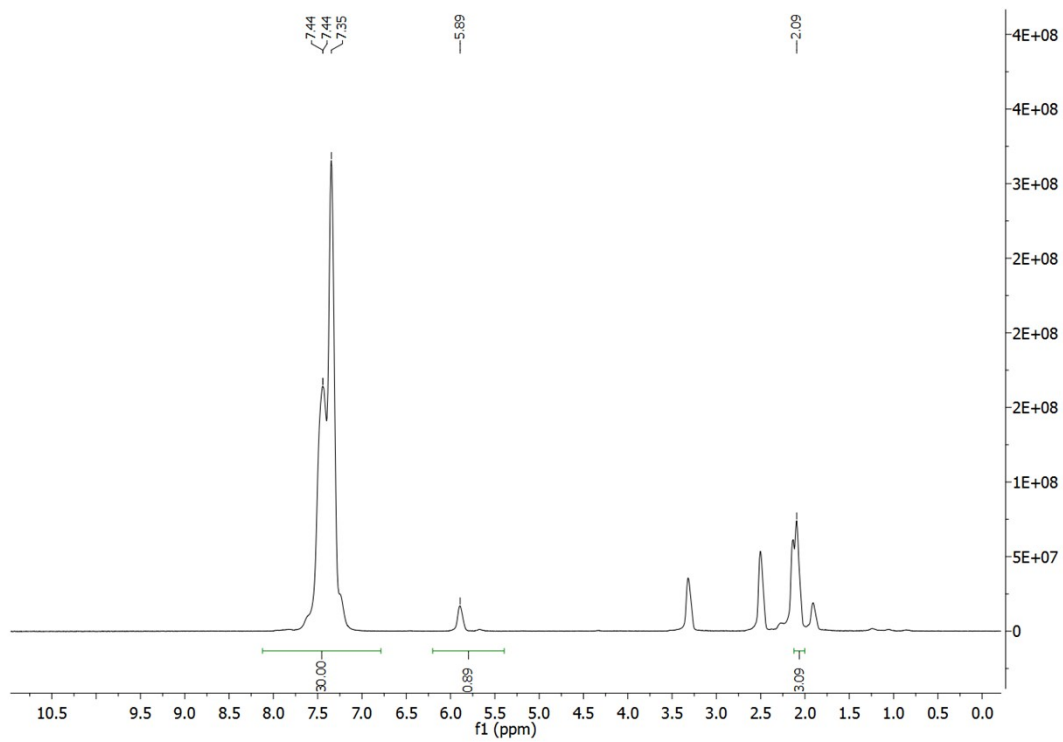
**Atousa Goudarzi,<sup>a</sup> Mitra Ghassemzadeh,<sup>a</sup> Maryam Saeidifar,<sup>b</sup> Kioumars Aghapoor,<sup>a</sup> Farshid Mohsenzadeh,<sup>a</sup> and Bernhard Neumüller<sup>c</sup>**

<sup>a</sup> Department of Inorganic Chemistry, Chemistry & Chemical Engineering Research Center of Iran, Pajoohesh Blvd., 17<sup>th</sup> Km of Tehran–Karaj Highway, Tehran 14968-13151, Iran. Fax: +98 21 44787753; Tel: +98 21 44787706; \*Email: mghassemzadeh@ccerci.ac.ir (M. Ghassemzadeh)

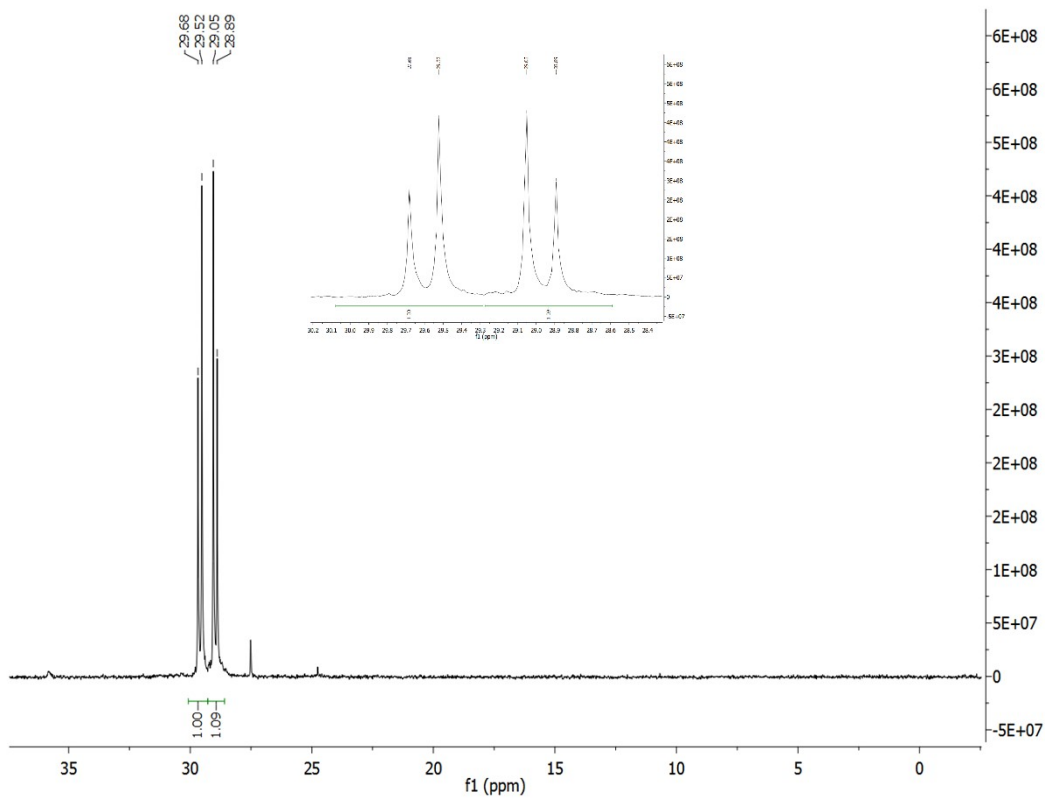
<sup>b</sup> Department of Nanotechnology and Advanced Materials, Materials and Energy Research Center, Karaj, Iran

<sup>c</sup>Fachbereich Chemie, Philipps-Universität Marburg, Hans-Meerwein-Strasse, 35032 Marburg, Germany.

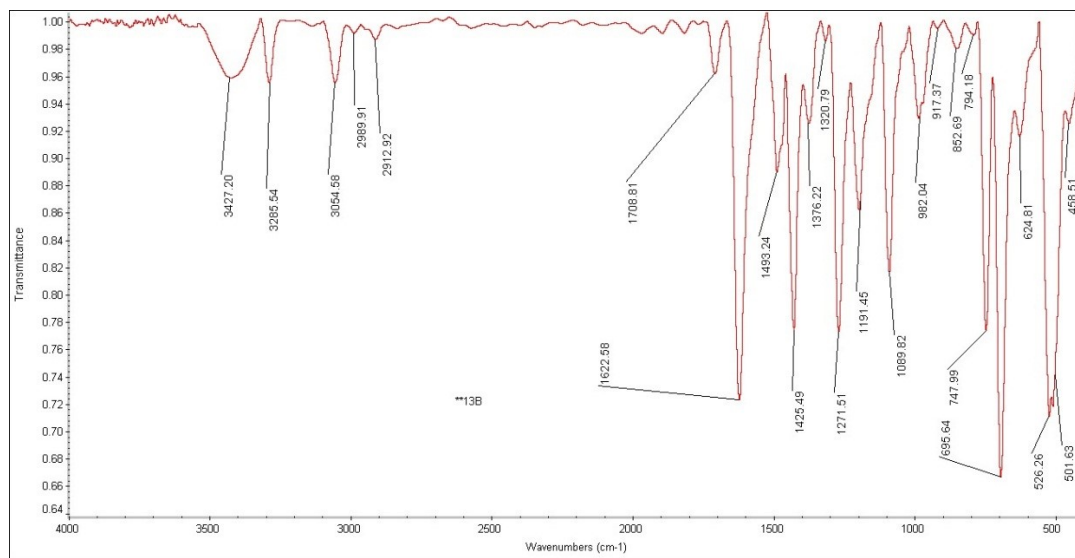
***Supporting Information***



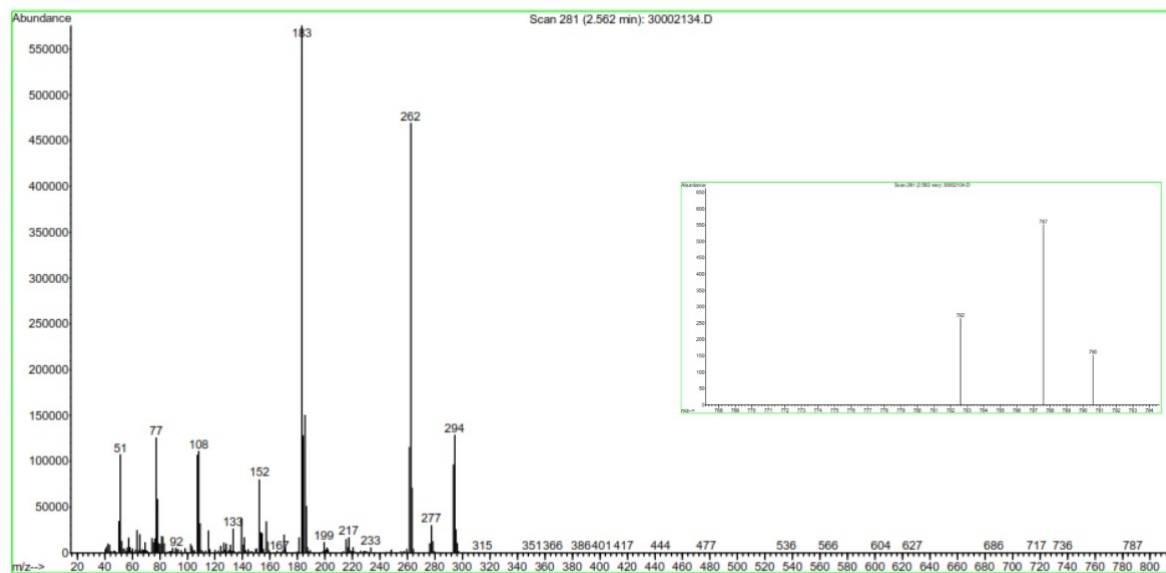
**Fig. SF1.** <sup>1</sup>H NMR spectrum of complex **1**·DMF in DMSO-*d*<sub>6</sub> at 25 °C.



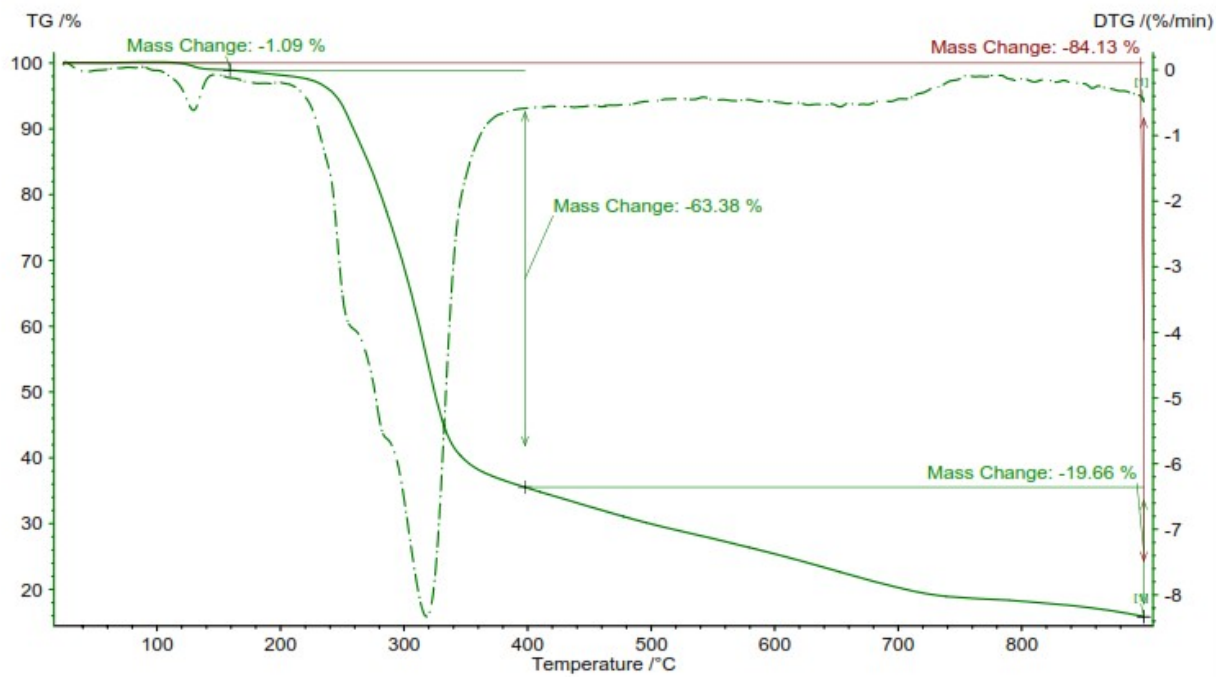
**Fig. SF2.**  $^{31}\text{P}$  NMR spectrum of complex 1 in  $\text{DMSO-}d_6$  at  $25\text{ }^\circ\text{C}$ .



**Fig. SF3.** FT-IR spectrum of complex **1** (KBr pellets).



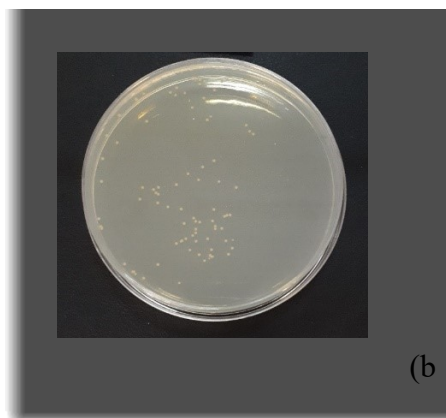
**Fig. SF4.** Mass spectrum of complex **1** recorded at 70eV at 25 °C.



**Fig. SF5.** TGA curve of complex 1.



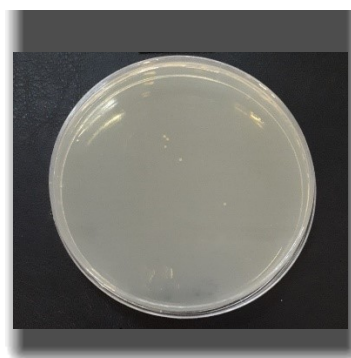
(a)



(b)



(c)

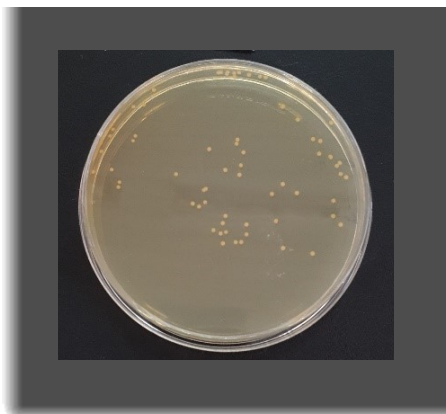


(d)

**Fig. SF6** Illustration of the *in vitro* antibacterial activity against *E. coli* at 48 h of  $10^{-4}$  dilution for (a) control sample; (b) AMTTO sample; (c)  $\text{PPh}_3$  sample and (d) complex 1 sample.



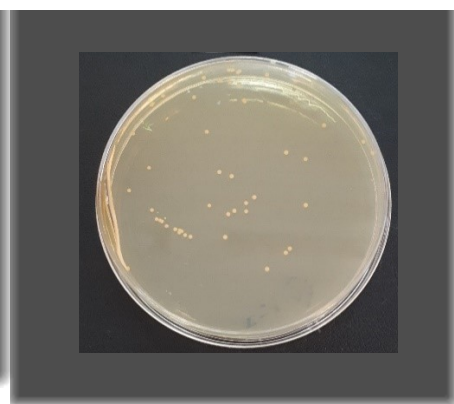
(a)



(b)



(c)



(d)

**Fig. SF7** Illustration of the *in vitro* antibacterial activity against *S. aureus* at 48 h of  $10^{-4}$  dilution for (a) control sample; (b) AMTTO sample; (c)  $\text{PPh}_3$  sample and (d) complex **1** sample.