The Structure of Pb(II) Ion in Hyper-Alkaline Aqueous Solution

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Electronic Supplementary Information

Table S1 The oxygen coordinated lead(II) structures used for determine the coordination number – Pb-O distance relationship for coordination number = 2, 3, 4, 5, 6, 8. The list is based on the data collected from the Inorganic Crystal Structure Database (ICSD) and the Cambridge Structural Database (CSD); *N* = coordination number; references marked in red text are omitted from the mean bond distance and angle. All the other structural data are listed in reference 4.

N	CSD code	$d_{Pb\text{-}O}$	∠O-Pb-O	Reference
2	VEYKUH	2.189 Å	100.6 ^{o}	Rekken, B. D.; Brown, T. M.; Olmstead, M. M.; Fettinger, J. C.; Power, P. P. *Inorg. Chem.* **2013**, *52*, 3054.
	Mean	**2.189 Å/1**		
3	QAHVOL	2.216 Å	86.5 ^{o}	Nehete, U. N.; Chandrasekhar, V.; Jancik, V.; Roesky, H. W.; Herbst-Irmer, R. *Organometallics* **2004**, *23*, 5372-5374.
3	QEXVUL	2.244 Å	77.7 ^{o}	Abakumov, G. A.; Cherkasov, V. K.; Piskunov, A.V.; Lado, A. V.; Fukin, G. K; Abakumova, L. G. *Izv. Akad. Nauk SSSR, Ser. Khim.* **2006**, 1103-1111.
3	OLAZAD	2.289 Å	82.9 ^{o}	Mauck, C. M.; van den Heuvel, T. W. P.; Hull, M. M.; Zeller, M.; Oertel, C. M. *Inorg. Chem.* **2010**, *49*, 10736-10743.
3	NIPKAY	2.291 Å	78.3 ^{o}	Parr, J.; Ross, A. T.; Slawin, A. M. Z. *Polyhedron* **1997**, *16*, 2765-2770.
3	MAJGOT	2.299 Å	83.2 ^{o}	van Zandt, W.; Huffman, J. C.; Stewart, J. L. *Main Group Met. Chem.* **1998**, *21*, 237-240.
3	MUKYIA	2.303 Å	77.1 ^{o}	Yu-Jun Shi; Yan Xu; Xue-Tai Chen; Ziling Xue; Xiao-Zeng You *Eur. J. Inorg. Chem.* **2002**, 3210-3213.
3	QEXVUL	2.304 Å	83.9 ^{o}	Abakumov, G. A.; Cherkasov, V. K.; Piskunov, A.V.; Lado, A. V.; Fukin, G. K; Abakumova, L. G. *Izv. Akad. Nauk SSSR, Ser. Khim.* **2006**, 1103-1111.
3	QEKZAI	2.308 Å	78.5 ^{o}	Oldag, T.; Keller, H.-L. *Z. Anorg. Allg. Chem.* **2006**, *632*, 1267-1272.
3	MAJGOT	2.325 Å	84.5 ^{o}	van Zandt, W.; Huffman, J. C.; Stewart, J. L. *Main Group Met. Chem.* **1998**, *21*, 237-240.
3	NIPJUR	2.340 Å	75.1 ^{o}	Parr, J.; Ross, A. T.; Slawin, A. M. Z. *Polyhedron* **1997**, *16*, 2765-2770.
3	NIPJOL	2.359 Å	78.4 ^{o}	Parr, J.; Ross, A. T.; Slawin, A. M. Z. *Polyhedron* **1997**, *16*, 2765-2770.
3	QEKYUB01	2.361 Å	77.5 ^{o}	Oldag, T.; Keller, H.-L. *Z. Anorg. Allg. Chem.* **2006**, *632*, 1267-1272.
3	BIBTIQ	2.464 Å	81.9 ^{o}	Naumov, P.; Cakir, S.; Bulut, I.; Bicer, E.; Cakir, O.; Jovanovski, G.; Ibrahim, A. R.; Usman, A.; Fun, H.-K.; Chantrapromma, S.; Ng, S. W. *Main Group Met. Chem.* **2002**, *25*, 175-176.
	Average	**2.318 Å**	**79.9 ^{o}/10 structures**	

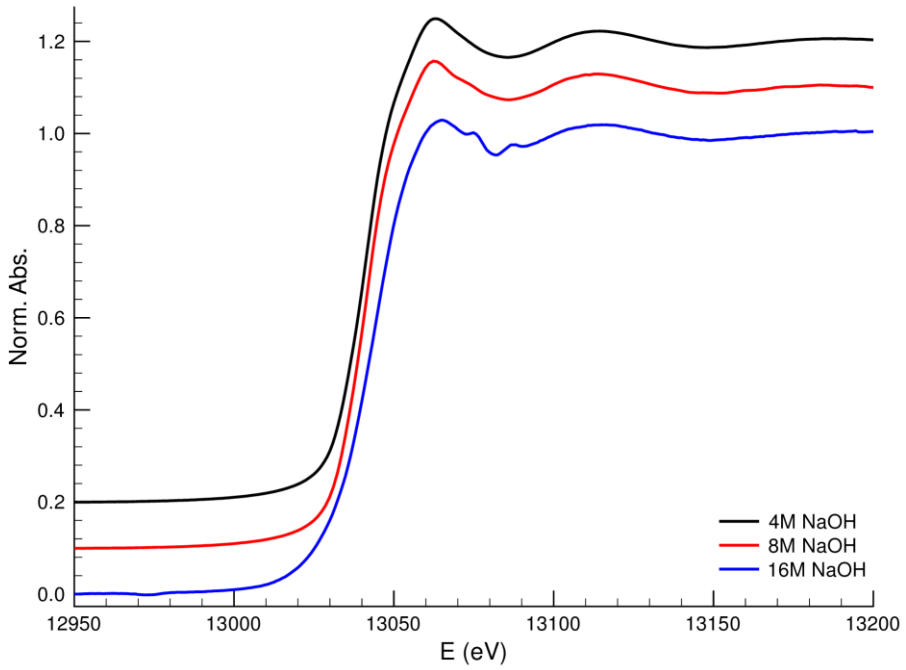

Fig. S1. L3 absorption edges of the trihidroxidoplumbate(II) complex in 4, 8 and 16 mol·dm^{-3} sodium hydroxide aqueous solutions; offsets are 0.2, 0.1 and no offset, respectively.