

ADDITIONS AND CORRECTIONS

2000, Volume 104B

Lin Zhu and Karl Seff*: Cation Crowding in Zeolites. Reinvestigation of the Crystal Structure of Dehydrated Potassium-Exchanged Zeolite X

Page 8948. Tables 2 and 3 were in error and should be replaced by the following. (A wrong unit-cell constant (0.324% too short) was used for least-squares refinements and for the calculation of bond lengths and angles. The reported unit-cell constant, $a = 25.083(5)$ Å, is correct.)

The following bond lengths and interatomic distances in the abstract and the text have changed (insignificantly) by less than 1.6 of their respective esds as follows:

Page 8946, abstract, line 8. 3.86(5) and 3.86(5).

Page 8949, column 1, paragraph 2, lines 2–13. 2.683(9), 2.475(14), 2.936(18), 2.509(23), 2.96(3), 2.64(4), and 2.87(15), respectively.

Page 8949, column 2, paragraph 1, lines 3–9. 3.86(5), 3.86(5), 4.55(8), and 4.16(8), respectively.

Page 8950, column 2, paragraph 3, lines 4 and 6. 2.663(8), 2.923(17), and 3.372(8), respectively.

We are grateful to Werner H. Baur for finding this error.

10.1021/jp0133844

Published on Web 11/09/2001

TABLE 2: Positional,^a Thermal,^b and Occupancy Parameters

atom	Wyc. pos.	cation site	x	y	z	U ₁₁ ^c or U _{iso}	U ₂₂	U ₃₃	U ₁₂	U ₁₃	U ₂₃	occupancy ^d	
												varied	fixed
Si,Al	192(i)		−555(1)	1243(1)	352(1)	19(1)	19(1)	17(1)	−3(1)	2(1)	−4(1)		192
O(1)	96(g)		−1105(2)	1105(2)	0	31(3)	31(3)	39(5)	5(2)	−8(2)	−8(2)		96
O(2)	96(g)		−45(2)	−45(2)	1398(3)	25(3)	25(3)	35(5)	10(3)	7(3)	7(3)		96
O(3)	96(g)		−707(2)	−707(2)	381(3)	46(3)	46(3)	37(5)	21(4)	−5(3)	−5(3)		96
O(4)	96(g)		1771(3)	1771(3)	3176(3)	44(4)	44(4)	26(3)	31(4)	2(3)	2(3)		96
K(Ia)	16(c)	I	0	0	0	10(4)							6
K(Ib)	32(e)	ca. I	96(6)	96(6)	96(6)	45(6)							4
K(I'a)	32(e)	I'	609(11)	609(11)	609(11)	45(21)							4
K(I'b)	32(e)	I'	794(9)	794(9)	794(9)	30							4
K(I'c)	96(g)	ca. I'	762(45)	674(19)	674(19)	30							4
K(II)	32(e)	II	2451(1)	2451(1)	2451(1)	32(2)	32(2)	32(2)	13(2)	13(2)	13(2)	28.4(4)	
K(III)	96(g)	III	1250	1250	4078(8)	182(23)	182(23)	31(13)	−52(24)	0	0	12.2(9)	
K(III'a)	96(g)	III'	586(15)	586(15)	4216(11)	47(13)						10.7(18)	
K(III'b)	96(g)	III'	792(14)	792(14)	4222(10)	48(12)						12.8(21)	
												ΣK ⁺ =	
												90.1(29)	

^a Position parameters are given $\times 10^4$. ^b Thermal parameters have the units Å² $\times 10^3$. Numbers in parentheses are the esds in the units of the least significant digit given for the corresponding parameter. Parameters without esds were fixed in least-squares refinement; the positional and anisotropic thermal parameters without esds were fixed by symmetry. ^c The anisotropic temperature factor = $\exp[(-2\pi^2 a^{-2})(h^2 U_{11} + k^2 U_{22} + l^2 U_{33} + 2hkU_{12} + 2hlU_{13} + 2klU_{23})]$. ^d Occupancy factors are given as the number of atoms or ions per unit cell.

TABLE 3: Selected Interatomic Distances and Angles

distances (Å)		angles (deg)	
(Si, Al)—O(1)	1.674(4)	O(1)—(Si,Al)—O(2)	111.5(3)
(Si, Al)—O(2)	1.667(3)	O(1)—(Si,Al)—O(3)	109.2(4)
(Si, Al)—O(3)	1.670(4)	O(1)—(Si,Al)—O(4)	108.4(4)
(Si, Al)—O(4)	1.655(3)	O(2)—(Si,Al)—O(3)	107.7(4)
mean (Si, Al)—O	1.667	O(2)—(Si,Al)—O(4)	107.2(4)
K(Ia)—O(3)	2.683(9)	O(3)—(Si,Al)—O(4)	112.9(4)
K(Ib)—O(3)	2.475(14), 2.936(18)	O(3)—K(Ia)—O(3)	88.0(2), 92.0(2)
K(I'a)···K(I'a)	4.55(8), ^a 5.42(4) ^b	O(3)—K(Ib)—O(3)	81.9(6), 86.7(3)
K(I'a)···K(I'b)	3.92(6) ^c	O(3)—K(I'a)—O(3)	93.1(7)
K(I'a)···K(I'c)	4.16(8) ^b	O(3)—K(I'b)—O(3)	76.6(15)
K(Ib)···K(I'b)	3.86(5) ^b	O(2)—K(II)—O(2)	99.6(2)
K(I'b)···K(I'c)	3.32(8) ^c	O(1)—K(III)—O(4)	50.2(2)
K(Ib)···K(I'c)	3.86(5) ^b	O(4)—K(III)—O(4)	78.5(6)
K(I'b)···K(I'c)	3.54(8) ^c	O(1)—K(III'a)—O(1)	114.7(10)
K(I'c)···K(I'c)	3.81(13), ^c 3.97(9) ^c	O(1)—K(III'a)—O(4)	57.7(4), 57.7(4)
K(I'a)—O(3)	2.509(24)	O(1)—K(III'b)—O(1)	114.8(10)
K(I'a)—O(2)	3.048(14)	O(1)—K(III'b)—O(4)	57.5(5), 57.5(5)
K(I'b)—O(3)	2.96(3)		
K(I'b)—O(2)	3.335(20)		
K(I'c)—O(3)	2.64(4), 2.87(15)		
K(I'c)—O(2)	3.260(23)		
K(II)—O(2)	2.663(7)		
K(II)—O(4)	3.020(8)		
K(III)—O(4)	2.923(17)		
K(III)—O(1)	3.372(8)		
K(III'a)—O(4)	2.66(3)		
K(III'a)—O(1)	2.94(2), 2.94(2)		
K(III'b)—O(4)	2.63(3)		
K(III'b)—O(1)	2.94(2), 2.94(2)		

^a Readily avoidable by cation placement. ^b Unavoidable. ^c Avoidable if there are four K(I'a)···K(I'c) contacts per unit cell.

1999, Volume 103B

Shenyan Zhen and Karl Seff*: Crystal Structure of Anhydrous NH_4^+ -Exchanged Zeolite X Partially Reacted with HgCl_2 Vapor. Cationic Chloromercuric Clusters, Regular Octahedral Hg(II) , and Regular Trigonal Hg(II)

Page 10411, Table 1. The y coordinate of O(1) should be +0.0014(7), and the y coordinate of O(3) should be +0.0675(6).

We are indebted to Werner H. Baur for finding these errors.

10.1021/jp013382j

Published on Web 11/08/2001

2000, Volume 104B

Shenyan Zhen, Donghan Bae, and Karl Seff*: Zn^+ Cations, Probable $\text{Tl}_4\text{Zn}_{12}$ and Tl_6 Clusters, and Zeolite Desilication (Less Likely Dealumination): Crystallographic Study of the Incomplete Reaction of Zn Vapor with Tl^+ -Exchanged Zeolite X

Page 515, lines 2 and 3 of the abstract, and page 516, last paragraph of column 1. $a_0 = 24.950(4)$ Å for crystal 1 and $a_0 = 24.825(3)$ Å for crystal 2.

We are grateful to Werner H. Baur for finding these errors.

10.1021/jp013383b

Published on Web 11/08/2001