ERRATA

Erratum: Electronic Raman scattering in superconductors as a probe of anisotropic electron pairing [Phys. Rev. B 51, 16 336 (1995)]

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[S0163-1829(96)05145-4]

Since publication of our paper a numerical error was detected in the evaluation of the screening of the A_{1g} response [see the second part of Eq. (32)]. This changes the calculation presented for the A_{1g} response only in Figs. 1 and 3–7, while the results shown in Fig. 2, and the B_{1g} and B_{2g} channels in all the figures remain unaffected.

We found that the A_{1g} response is affected by an admixture of the higher order harmonic $\cos(8\phi)$ and leads to a transfer of spectral weight, but leaves the low frequency behavior unchanged. For the screened A_{1g} response, we can use a vertex of the form $\gamma(\mathbf{k})=\sqrt{2/(1+\alpha^2)}\{\cos(4\phi)+\alpha\cos(8\phi)\}$ for a $d_{x^2-y^2}$ energy gap, with varying contributions of the second Fermi surface harmonic measured by the parameter α. In Fig. 1 we demonstrate that the electronic Raman spectra for optimally doped Bi2212 can still be fitted with the particular choice $\alpha=-0.15$ for the A_{1g} spectrum. Hence we may state that (i) the A_{1g} response can still be made to fit the experimental data, (ii) the numerical error does not automatically invalidate our theoretical conclusion leading to a $d_{x^2-y^2}$ symmetry of the gap and (iii) the theoretical treatment of the A_{1g} response is more complicated than previously thought, due to the necessity of including higher order FS harmonics or even searching for a new set of basis functions with better convergence properties. This topic will be addressed in a forthcoming publication.

Lastly, a few minor corrections are (i) a factor of 2 is missing in the prefactor in Eq. (33), (ii) 3/2 should be replaced by 2/3 in Eq. (B2).

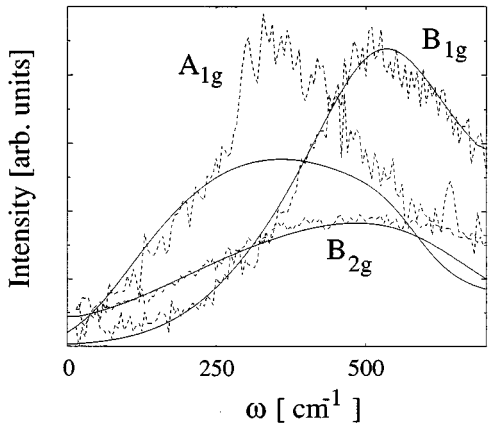

FIG. 1. Comparison of theory and experiment for optimally doped Bi2:2:1:2 for three symmetry channels. Here $\alpha=-0.15$ has been used for the A_{1g} vertex (compare to Fig. 5 in the original paper).

Erratum: Symmetry dependence of phonon line shapes in superconductors with anisotropic gaps [Phys. Rev. B 50, 10 287 (1994)]

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[S0163-1829(96)05245-9]

This article has the same numerical error as cited above. The modifications and conclusions are the same as presented there. The change in evaluating the screening of the A_{1g} response only affects the calculation presented in Fig. 1 of the original paper, while the other figures remain unchanged.

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Erratum: Anharmonic contribution to the Debye-Waller factor for copper, silver, and lead [Phys. Rev. B 52, 168 (1995)]

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[S0163-1829(96)05345-3]

Equation (2) should read

$$\langle u_Q^2 \rangle = \frac{3\hbar^2}{Mk_B\Theta^2}\, T + m_2 T^2 + m_3 T^3.$$

The values given in Table I are incorrect. A corrected table is given below. In the discussion about the parameter m_2 on page 174, the last sentence of the paragraph should read as follows: By letting the Debye temperature be a fitting parameter for our data, the returned value of the Debye temperature tends to be 10–20 % higher and the m_2 parameter moves much higher, roughly quadrupling for copper and silver and changing sign for lead. The error bars shown in Figs. 4–6 are about an order of magnitude smaller than the actual errors on the (200) and (220) reflections, which is puzzling in view of the small scatter shown. Problems with the originally calculated errors in Y values and the disappearance of the original thesis data of John T. Day made it impossible to confirm the Y values plotted in this paper, and because of problems found with the data and its processing we are planning to repeat and expand these measurements. We intend to publish another paper on this topic using a new approach to analyzing Debye-Waller factor data and accounting for thermal expansion effects.[1]

The corrections to the parameters given in Table I change one conclusion drawn from the measurements. We do see a significant Q^4 contribution in all three crystals. In copper, the value of $m_4 = 6.0(8)\times10^{-14}$ Å^4/K^3 is smaller than the value found by Martin and O'Connor,[2] $m_4 = 1.2(4)\times10^{-13}$ Å^4/K^3, but is definitely nonzero. The values for silver and lead are alsoclearly nonzero, and they are in fact quite large, one and two orders of magnitude larger than for copper, respectively. In Figs. 5 and 6 there is a small visible separation in the Y data for the measurements at different Bragg planes of silver and lead, indicating the large Q^4 dependence of the silver and lead Y data directly.

TABLE I. Debye-Waller factor parameters.

Crystal	Θ_D [K][a]	m_2 [Å^2/K^2]	m_3 [Å^2/K^3]	$m_4(h00)$ [Å^4/K^3]
Cu	312(3)[b]	$4.3(8)\times10^{-9}$	$-2(8)\times10^{-13}$	$6.0(8)\times10^{-14}$
Ag	214(4)	$2(1)\times10^{-9}$	$7.7(9)\times10^{-12}$	$4.2(7)\times10^{-13}$
Pb	83(10)	$-7(2)\times10^{-8}$	$2.0(3)\times10^{-10}$	$8(1)\times10^{-12}$

[a]The values of Θ given are the same as in the original paper and are based on a subset of the low-temperature data. Fitting the data to all parameters simultaneously increases the value of Θ and changes the other parameters due to parameter correlation as mentioned above.

[b]The number in parenthesis is the error in the last digit. 312(3) means 312 ± 3.

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We wish to thank Carmen Shepard for carefully reviewing much of the data in the Ph.D. thesis research of John T. Day and recalculating the above parameters from that thesis.

[1]C. K. Shepard, J. G. Mullen, and G. Schupp (unpublished).
[2]C. J. Martin and D. A. O'Connor, Acta Crystallogr. Sec. A **34**, 500 (1978).

Erratum: Evolution from the vortex state to the critical state in a square-columnar Josephson-junction array [Phys. Rev. B 53, 6579 (1996)]

D.-X. Chen, J. J. Moreno, and A. Hernando

[S0163-1829(96)04845-X]

There are systematic errors in the signs of all the pure θ and ϑ terms in Eqs. (1) and (5). For example, Eq. (5) and the first equation of Eq. (1) should be corrected as

$$h_{ij}=(-\theta_{ij}-\vartheta_{i+1,j}+\theta_{i,j+1}+\vartheta_{ij})/2\pi \quad (i,j,=1,2,\ldots,24)$$

and

$$\frac{d\theta_{ij}}{dt^*}=-2\pi h-\theta_{ij}+\theta_{i,j+1}+\vartheta_{ij}-\vartheta_{i+1,j}-2\pi i_{\max}\sin\theta_{ij} \quad (1\leqslant i\leqslant 24,\ j=1),$$

respectively.

However, all the results presented in this paper have been obtained using the correct formulas.

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Erratum: $\Phi_0/2$ vortices in a defect-containing Josephson-junction array [Phys. Rev. B 52, R9859 (1995)]

D.-X. Chen, J. J. Moreno, and A. Hernando

[S0163-1829(96)04945-4]

The corrections specified above also hold for this paper. All results presented in this paper have been obtained using the correct formulas, so these changes do not affect the conclusions.

0163-1829/96/54(21)/15549(1)/$10.00

Erratum: Symmetry of trapped-field profiles in square columnar Josephson-junction arrays [Phys. Rev. B 51, 16 440 (1995)]

J. J. Moreno, D.-X. Chen, and A. Hernando

[S0163-1829(96)05045-X]

The corrections specified above also hold for this paper. All results presented in this paper have been obtained using the correct formulas, so these changes do not affect the conclusions.

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