# ERRATA

***Bull. Korean Chem. Soc.* 2003, Vol. 24, No. 8, pp 1111~1118**

**Correction**

## Towards the Reconstruction of Time-dependent Vibronic States from Nonlinear Wavepacket Interferometry Signals

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*Received April 14, 2003*

In a recent article[1] we explained how nonlinear wave packet interferometry could be used to measure the complex-valued overlap between a given one-pulse target wave packet and a variable three-pulse reference wave packet. Using calculated interferograms, we showed how a set of overlap measurements taken with different combinations of interpulse delays could be used to reconstruct the target state wave function from knowledge of the collection of reference states by casting this set of linear algebraic equations in the matrix form of Eq. (14).

In defining the elements of the reference matrix $\mathbf{A_{Ref}}$ and the target vector $\mathbf{x_{Tar}}$ some phase factors were omitted from our published expressions. The elements of the real submatrices $\mathbf{A_r}$ and $\mathbf{A_i}$ should be given by $\mathrm{Re}\langle n_g|e^{-i(\Phi_D-\phi_p)}T_C^{\dagger}|x_n\rangle$ and $\mathrm{Im}\langle n_g|e^{-i(\Phi_D-\phi_p)}T_C^{\dagger}|x_n\rangle$, respectively, rather than the values stated in Ref. [1]. Similarly, the first $N$ elements of the target vector $\mathbf{x_{Tar}}$ are to be changed to $\mathrm{Re}\langle x_n|e^{i(\Phi_C+\Omega_d t_d)}U_C|n_g\rangle$ and the second $N$ elements to $\mathrm{Im}\langle x_n|e^{i(\Phi_C+\Omega_d t_d)}U_C|n_g\rangle$. See Eq. (5) of Ref. [1] and the definitions following. The presence of these phase factors unambiguously defines the target and reference states, removing the uncontrolled absolute phases of the applied pulses from these definitions. The calculations presented in Ref. [1] were performed using the definitions stated here, and those results are not affected by the reported corrections.

References

[1] Humble, T. S.; Cina, J. A. *Bull. Korean Chem. Soc.* **2003**, *24*, 1111.

***Bull. Korean Chem. Soc.* 2004, Vol. 25, No. 1, pp 21~22**

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