Erratum: Symmetry fingerprints of a benzene single-electron transistor: Interplay between Coulomb interaction and orbital symmetry [Phys. Rev. B 77, 201406 (2008)]

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In a recent article[1] we analyze the interplay between interference and interaction in the transport through a Benzene SET. In the framework of the Liouville equation approach we derive there a generalized master equation for the reduced density matrix [Eq. (3)]. Further work on the the model revealed a sign error in the first energy nonconserving term of that equation. The main results of the paper are not affected by this change due to the modest role played by the energy nonconserving terms in that context. We report nevertheless the correct equation:

$$\dot{\sigma}^{NE} = -\sum_{\alpha\tau}\frac{\Gamma_\alpha}{2}\left\{\mathcal{P}_{NE}\, d_{\alpha\tau}\left[f_\alpha^{+}(H_{\mathrm{ben}}-E)-\frac{i}{\pi}p_\alpha(H_{\mathrm{ben}}-E)\right]d_{\alpha\tau}^{\dagger}\,\sigma^{NE}+\mathcal{P}_{NE}\, d_{\alpha\tau}^{\dagger}\left[f_\alpha^{-}(E-H_{\mathrm{ben}})-\frac{i}{\pi}p_\alpha(E-H_{\mathrm{ben}})\right]d_{\alpha\tau}\,\sigma^{NE}+\mathrm{H.c.}\right\}$$
$$+\sum_{\alpha\tau E'}\Gamma_\alpha\mathcal{P}_{NE}\{d_{\alpha\tau}^{\dagger}f_\alpha^{+}(E-E')\sigma^{N-1E'}d_{\alpha\tau}+d_{\alpha\tau}f_\alpha^{-}(E'-E)\sigma^{N+1E'}d_{\alpha\tau}^{\dagger}\}\mathcal{P}_{NE}. \quad (3)$$

[1] G. Begemann, D. Darau, A. Donarini, and M. Grifoni, Phys. Rev. B **77**, 201406(R) (2008).

