

Abstract Submitted  
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**Hyperfine-induced  $2s2p^3P_0 - 2s^2^1S_0$  transition in Be-like ions<sup>1</sup>**

K.T. CHENG, M.H. CHEN, Lawrence Livermore National Laboratory — The hyperfine-induced  $2s2p^3P_0 - 2s^2^1S_0$  transition rate for Be-like  $^{47}\text{Ti}^{18+}$  is recently measured in a storage-ring experiment by Schippers *et al.* [Phys.Rev.Lett. **98**, 033001 (2007)]. The measured value of  $0.56(3) \text{ s}^{-1}$  is almost 60% larger than the multi-configuration Dirac-Fock value of  $0.356 \text{ s}^{-1}$  by Marques *et al.* [Phys. Rev. A **47**, 929 (1993)]. In this work, we use a large-scale relativistic configuration-interaction method to calculate this hyperfine-induced rate. Coherent hyperfine-quenching effects between the  $2s2p^3P_1$  and  $^1P_1$  states are included in a radiation damping formalism. Contrary to the findings of Marques *et al.*, contributions from the  $^1P_1$  state are substantial and lead to much better agreement with experiment.

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