

PHYSICAL REVIEW A

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Publisher’s Note: Dispersive forces on bodies and atoms: A unified approach [Phys. Rev. A 73 , 063822 (2006)] (<i>1 page</i>)	019901(E)
Christian Raabe and Dirk-Gunnar Welsch	
Publisher’s Note: Spatial labeling in a two-photon interferometer [Phys. Rev. A 73 , 063827 (2006)] (<i>1 page</i>)	019902(E)
P. S. K. Lee and M. P. van Exter	
Publisher’s Note: Asymptotic adaptive bipartite entanglement-distillation protocol [Phys. Rev. A 73 , 062337 (2006)] (<i>1 page</i>)	019903(E)
Erik Hostens, Jeroen Dehaene, and Bart De Moor	
Erratum: Channel competition between metastable and dissociated states of doubly ionized NO in strong laser fields [Phys. Rev. A 71 , 021404 (2005)] (<i>1 page</i>)	019904(E)
Chunlei Guo and Kevin Wright	