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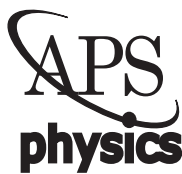
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Publisher's Note: Predicted band structures of III-V semiconductors in the wurtzite phase [Phys. Rev. B 81 , 155210 (2010)] (<i>1 page</i>)	199901(E)
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Publisher's Note: Magnetic polarons in Eu-based films of magnetic semiconductors [Phys. Rev. B 81 , 153201 (2010)] (<i>1 page</i>)	199902(E)
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