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Retraction: “Observation of numerous E2 mode phonon replicas in the room temperature photoluminescence spectra of ZnO nanowires: Evidence of strong deformation potential electron-phonon coupling” [Appl. Phys. Lett.89, 143121 (2006)]

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Retraction: “Observation of numerous E_2 mode phonon replicas in the room temperature photoluminescence spectra of ZnO nanowires: Evidence of strong deformation potential electron-phonon coupling” [Appl. Phys. Lett. **89**, 143121 (2006)]

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In the above mentioned Letter, we reported observing ~20 phonon replicas in the photoluminescence (PL) spectra of ZnO nanowires, which were perfectly reproducible. They were reproducible in different samples and in different runs. We observed ~20 oscillations in the PL spectra of ZnO nanowires and the period of these oscillations agreed (within 5%) with the E_2 phonon energy in ZnO. This led us to believe that these indeed are phonon replicas associated with the E_2 phonon mode in ZnO.

However, a colleague who recently used the same micro-Raman equipment that we had used to extract these data reported observing the exact same oscillations (with the

same period) in a completely different material. There is no possible scientific explanation for this except that these oscillations must then not be related to the sample at all, but are spurious features produced by a systematic error in the equipment, probably due to a faulty detector.

Neither our colleague, nor we have any inkling of what might be causing these oscillations. They are completely unexpected and inexplicable. This erratic behavior is intermittent, which made it difficult to catch. Nonetheless, we can no longer stand behind the data in the paper and therefore retract the paper in its entirety.

We are sorry for any confusion that this may have caused for the readers of Applied Physics Letters.

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