Li and Rau Reply: Bode *et al.*, in a Comment [1] on our Letter [2], claim that the vortex (V) core width d_{vc} in magnetic nanodisks (NDs) is on the order of 10 nm and essentially independent of the ND diameter d. We are presenting published data (see also Fig. 1) that clearly show that this claim is incorrect. For instance, a recent transmission electron microscopy experiment on $d = 6\ \mu$m Co elements gives $d_{vc} = 80$ nm [3]. Their claim rests in a formula [Eq. (1) in Ref. [1]] published by Feldtkeller and Thomas [4] for the Bloch line radius of thin films ($d = \infty$) with zero thickness $D = 0$ and zero distance ρ from the Bloch line center using Lilley's definition for the wall thickness [5]. We [6] and others [7] have already experimentally shown that the V wall thickness depends *strongly* on ρ in patterned Co NDs. Equation (1) in Ref. [1] does not exhibit any dependence on d and D and should not be used for *finite* D and d. Usov and Peschany [8], Komineas [9], as well as Jubert and Allenspach [10] show that d_{vc} depends on d and D. Data taken from Refs. [10,11] show that d_{vc} changes at least by a factor of 4 with changing D (see Fig. 1). Buda *et al.* [11] remark that, increasing D, the out-of-plane demagnetization field decreases, and hence the exchange energy widens the V core. The failure of their claim can be more directly seen from Fig. 1, which gives d_{vc} versus different d values obtained from recent publications [2–19] together with a horizontal black line that corresponds to a d_{vc} value of 10 nm as proposed in Ref. [1]. The clear deviation of most of the presented data from this line unambiguously shows that d_{vc} is not "on the order of 10 nm" and not "essentially independent of d" as claimed in Ref. [1]. Quite recently, Komineas showed for V-antivortex (AV) pairs that in the presence of an easy-plane anisotropy, d_{vc} scales with the reduced anisotropy constant $Q = K_r/K_d$ [2]: $d_{vc} \sim 1/Q^{0.5}$ [20]. For our Co NDs, $Q = 8.4 \times 10^{-4}$ is obtained [2]. For this value, compared to a medium anisotropy $Q \approx 1$ ($d_{vc} = 10$ nm [1]) and including a thickness factor of 4, we obtain for d_{vc} a value of 1.38 μm, which is close to our experimental values for single Vs as well as for Vs and AVs in AV pairs in $D = 30$ nm Co elements (see Figs. 2 and 3 in Ref. [2]).

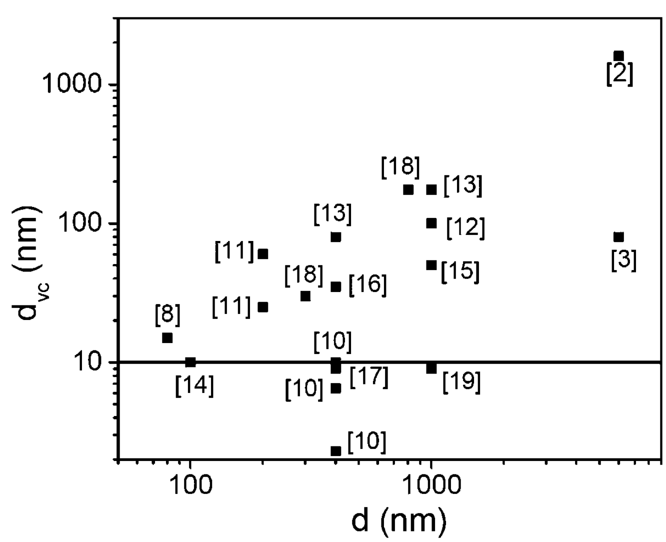

FIG. 1. d_{vc} values—together with the corresponding literature reference numbers—plotted versus d.

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