Erratum: Optical transition energies of isolated molecular monomers and weakly interacting two-dimensional aggregates [Phys. Rev. B 93, 165426 (2016)]

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In a recent contribution we discussed the optical absorption behavior, in particular, the $S_0 \rightarrow S_1$ transition energies, of 3,4,9,10-perylene tetracarboxylic dianhydride (PTCDA) submonolayers and monolayers (MLs) on various substrates. In Sec. III C 4 we compared the results of different experimental methods, namely, photoluminescence excitation (PLE) and differential reflectance spectroscopy (DRS) as follows: "For instance, the 0-0 transition of the 'brickwall' monolayer phase on 10 ML KCl(100)/Ag(100) ($\cdots$) was found at ≈ 2.480 eV (($20\,000 \pm 20$) cm^{-1}) with PLE (PTCDA deposited at 260 K, measured at 20 K), while on bulk KCl(100) ($\cdots$) it was measured at 2.431 eV with DRS at 300 K during deposition. This comparison shows that even on the same substrate (10 ML KCl can be considered bulklike) and for the same molecular monolayer structure the fundamental transition is found at different energies, ≈ 50 meV (≈ 400 cm^{-1}) apart."

It was brought to our attention that we incorrectly referred to the numbers for the dilute (**d**) and brickwall (**BW**) phases published in Ref. [1]. There, the following is stated: "The spectra show a dominating pure electronic transition (0-0 transition), which is found at $20\,000 \pm 20$ cm^{-1} and $19\,600 \pm 20$ cm^{-1}, for the **d** and **BW** phase, respectively." Regrettably, we mixed up those numbers and inadvertently quoted ≈ 2.480 eV (($20\,000 \pm 20$) cm^{-1}) instead of the correct value ≈ 2.430 eV (($19\,600 \pm 20$) cm^{-1}) for the **BW** phase. Consequently, the PLE [1] and DRS [2] results of PTCDA brickwall monolayers on KCl(100) are indeed identical within the experimental accuracy and not significantly different as falsely noted by us. Notwithstanding this flaw, the main conclusions of our contribution, especially the influence of the two-dimensional molecular aggregation on the observed optical transition energies, remain unaffected.

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[1] M. Müller, A. Paulheim, A. Eisfeld, and M. Sokolowski, J. Chem. Phys. **139**, 044302 (2013).
[2] T. Dienel, C. Loppacher, S. C. B. Mannsfeld, R. Forker, and T. Fritz, Adv. Mater. **20**, 959 (2008).