Raikh, Glazman, and Zhukov Reply: In their Comment Wan, Ortiz, and Phillips [1] make three points about our Letter [2]: (i) proposed mechanism of the pair formation requires a single prior occupancy of the cluster of four localized states, that we have considered; (ii) our mechanism relies on geometric accidents and lacks robustness with respect to the change of the interaction law; (iii) calculating the energy balance, we assumed the localized states to be pointlike and neglected the finite size of the corresponding wave functions.

The first objection is quite relevant. Indeed, in the experiment [3], in some runs the very first peak observed was double [4]. However, one cannot say for sure that all the localized states in the dot reveal themselves in the spectroscopy. The experiment was performed using the *ac* excitation; if the tunneling time into a localized state exceeds the period of excitation, it would get eventually populated, but would not be detected [4]. The widths of the peaks in experiment [3] *cannot* be used as a measure of tunneling times for the following reason. The data were taken at temperature $T = 6$ mK, which is much larger than the inverse tunneling time. So it was T that determined the widths of the peaks, and that is why they were similar.

The second objection can be addressed to any event which occurs with some finite probability; formation of any cluster in a random system can be regarded as accidental. The possibility of moving a localized state, located at the apex of the triangle (as well as all the other localized states) was *explicitly* taken into account in the calculation of the probability, $\mathcal{P}$, of the occurrence of a double peak, presented in the Letter. We do not see why the difference in numerical coefficients in $\mathcal{P}$, calculated for a model and for realistic interaction laws, should be considered as a drawback of our mechanism. In fact, the model "hard core" interaction, which we used only for illustration, contains two adjustable parameters: magnitude and radius. Bringing them in correspondence with $e^2/\kappa d$ and d is possible only within some numerical factors.

Regarding the third objection, one can make a simple estimate: Suppose the localized state is not a point, but the density of charge falls off from the center as $\exp(-2\rho/a_0^*)$. Then the change in the Coulomb interaction of two such states at relevant distance $d = 3a_0^*$ differs from the classical value by 8%. We have neglected this correction in our consideration.

Reviewing the mechanism [5] was not a major goal of our Letter, but in response to the Comment we make the following remark.

The authors consider the motion of one and two electrons in combined potential, which is the potential of a donor in the well and the potential of a cluster of donors in the setback layer. If the cluster consists, say, of Z donors spaced by a distance D from the quantum well, then the potential it creates in the well is $V(\rho) = Ze^2/\kappa\sqrt{\rho^2 + D^2}$. From the calculations performed the authors conclude that pair binding occurs when the in-plane separation between the donor and the cluster exceeds $8a_0^* \approx 800$ Å. On the other hand, the distance D in [3] is restricted by $150 < D < 450$ Å. This means that at $\rho = 8a_0^*$ the potential $V(\rho)$ already falls off significantly. On the other hand, the quadratic expansion $V(\rho) - V(0) = m\omega_0^2\rho^2/2$, where $\omega_0 = (Ze^2/\kappa D^3)^{1/2}$ is valid only near the origin, i.e., $\rho \ll D$. When we expressed doubts that two electrons do not share the same deformation, we had in mind just this picture. However, the authors extend the small-ρ expansion all over the 2D plane. By doing so, they build "hard walls" for two electrons, thus forcing them to stay together. This, certainly, creates favorable conditions for their pairing. We doubt that the pairing would be possible if not a parabolic but a realistic in-plane confinement was chosen.

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