Letter to the editor

A. O. Gogolin, A. S. Ioselevich

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Dear Editor:

In some papers[1,2] recently published in *this journal*, we proposed and analyzed a "quantum polaron": a distinctive formation which arises in the case of a strong quadratic interaction of an electron with soft phonon modes. We studied small-radius (antiadiabatic) quantum polarons and large-radius (adiabatic) quantum polarons in a space of arbitrary dimensionality D.

Unfortunately, we were unaware of papers[3,4] by A. B. Kuklov, who had used the same model for an earlier study of a large-radius $3D$ quantum polaron (which was called a "soliton" in Refs. 3 and 4). For this reason, the results in our papers[1,2] for the energy, wave function, and effective mass of an adiabatic quantum polaron in $D = 3$ reproduce the results found earlier by Kuklov.[3,4] Kuklov was also the first to suggest that such states might be realized in La_2CuO_4.

We offer A. B. Kuklov our profound apologies for failing to cite his papers, and we thank him for furnishing reprints. We also apologize to the Editorial Board.

[1]A. O. Gogolin and A. S. Ioselevich, Pis'ma Zh. Eksp. Teor. Fiz. **53**(9), 456 (1991) [JETP Lett. **53**, 479 (1991)].
[2]A. O. Gogolin and A. S. Ioselevich, Pis'ma Zh. Eksp. Teor. Fiz. **54**, 291 (1991) [JETP Lett. **54** (to be published) (1991)].
[3]A. B. Kuklov, Phys. Lett. A **139**, 270 (1989).
[4]A. B. Kuklov, Sverkhprovodimost' (KIAE) **3**(10), 2277 (1990) [Superconductivity **3**, 335 (1990)].

Translated by D. Parsons

