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Triplet Nodeless Superconductivity Scenario in the Quasi-One-Dimensional Layered Conductor $Li_{0.9}Mo_6O_{17}$[1] ANDREI LEBED, OTAR SEPPER, Department of Physics, University of Arizona — We solve a theoretical problem about the upper critical magnetic field, parallel to a conducting axis of a layered quasi-one-dimensional superconductor. In particular, we consider the case, where triplet superconducting order parameter is not sensitive to the Pauli destructive effects against superconductivity and has no zeros on two quasi-one-dimensional pieces of the Fermi surface. We demonstrate [1] that in this case the orbital destructive effects against superconductivity can destroy superconducting state at magnetic fields much higher than the so-called Clogston-Chandrasekhar paramagnetic limit. Comparison of our theoretical results with the very recent experimental data [2] is in favor of a triplet superconducting pairing in the layered quasi-one-dimensional superconductor $Li_{0.9}Mo_6O_{17}$.

[1] A.G. Lebed and O. Sepper, Phys. Rev. Lett., submitted.
[2] J.-F. Mercure et al., Phys. Rev. Lett. **108**, 187003 (2012).

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