

Pairing symmetry of superconducting graphene

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The possibility of intrinsic superconductivity in alkali-coated graphene monolayers has been recently suggested theoretically. Here, we derive the possible pairing symmetries of a carbon honeycomb lattice and discuss their phase diagram. We also evaluate the superconducting local density of states (LDOS) around an isolated impurity. This is directly related to scanning tunneling microscopy experiments, and may evidence the occurrence of unconventional superconductivity in graphene.

References

[1] F. M. D. Pellegrino, G. G. N. Angilella, R. Pucci, *Eur. Phys. J. B* **76**, 469 (2010).