



Coexistence of Dirac and massive carriers in alpha-(BEDT-TTF)(2)I-3 under hydrostatic pressure

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Auteur	Monteverde, M. [1], Goerbig, M. O [2], Auban-Senzier, Pascale [3], Navarin, Fabien [4], Henck, H. [5], Pasquier, Claude [6], Mézière, Cécile [7], Batail, Patrick [8]
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Résumé en anglais	Transport measurements were performed on the organic layered compound alpha-(BEDT-TTF)(2)I-3 under hydrostatic pressure. The carrier types, densities, and mobilities are determined from the magnetoconductance of alpha-(BEDT-TTF)(2)I-3. While evidence of high-mobility massless Dirac carriers has already been given, we report here their coexistence with low-mobility massive holes. This coexistence seems robust as it has been found up to the highest studied pressure. Our results are in agreement with recent DFT calculations of the band structure of this system under hydrostatic pressure. A comparison with graphene Dirac carriers has also been done.
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