



Infrared spectra of the one-dimensional quarter-filled Wigner lattice compounds delta-(EDT-TTF-CONMe₂)(₂)X (X = AsF₆, Br): Domain-wall excitations

Submitted by Emmanuel Lemoine on Thu, 02/06/2014 - 11:11

Titre	Infrared spectra of the one-dimensional quarter-filled Wigner lattice compounds delta-(EDT-TTF-CONMe ₂)(₂)X (X = AsF ₆ , Br): Domain-wall excitations
Type de publication	Article de revue
Auteur	Antal, Ágnes [1], Knoblauch, T. [2], Dressel, Martin [3], Batail, Patrick [4], Drichko, Natalia [5]
Type	Article scientifique dans une revue à comité de lecture
Année	2013
Langue	Anglais
Date	02/2013
Numéro	7
Volume	87
Titre de la revue	Physical Review B
ISSN	1098-0121
Mots-clés	organic conductors [6]
Résumé en anglais	Optical investigations of quarter-filled charge ordered insulators delta-(EDT-TTF-CONMe ₂)(₂)X, X = AsF ₆ , Br are reported. The spectra evidence the one-dimensional nature of the systems at all temperatures. The charge order exists already at room temperature, the optical gap is estimated to be of the order of 550 cm ⁻¹ for the X = Br compound and about 700 cm ⁻¹ for the X = AsF ₆ material. The optical response in the direction of the stacks is discussed in terms of domain-wall excitations of one-dimensional quarter-filled Wigner lattice at moderate values of nearest-neighbor electronic repulsion. A similarity between the effects of temperature contraction and chemical pressure is found.
URL de la notice	http://okina.univ-angers.fr/publications/ua2672 [7]
DOI	10.1103/PhysRevB.87.075118 [8]

Liens

- [1] [http://okina.univ-angers.fr/publications?f\[author\]=19115](http://okina.univ-angers.fr/publications?f[author]=19115)
- [2] [http://okina.univ-angers.fr/publications?f\[author\]=3447](http://okina.univ-angers.fr/publications?f[author]=3447)
- [3] [http://okina.univ-angers.fr/publications?f\[author\]=2717](http://okina.univ-angers.fr/publications?f[author]=2717)
- [4] <http://okina.univ-angers.fr/patrick.batail/publications>
- [5] [http://okina.univ-angers.fr/publications?f\[author\]=2716](http://okina.univ-angers.fr/publications?f[author]=2716)
- [6] [http://okina.univ-angers.fr/publications?f\[keyword\]=5477](http://okina.univ-angers.fr/publications?f[keyword]=5477)
- [7] <http://okina.univ-angers.fr/publications/ua2672>
- [8] <http://dx.doi.org/10.1103/PhysRevB.87.075118>

