Radical cation salts of BEDT-TTF, enantiopure tetramethyl-BEDT-TTF, and TTF-Oxazoline (TTF-Ox) donors with the homoleptic TRISPHAT anion

Titre	Radical cation salts of BEDT-TTF, enantiopure tetramethyl-BEDT-TTF, and TTF-Oxazoline (TTF-Ox) donors with the homoleptic TRISPHAT anion
Type de publication	Article de revue
Auteur	Riobé, François [1], Piron, Flavia [2], Réthoré, Céline [3], Madalan, Augustin-M. [4], Gómez-García, Carlos J [5], Lacour, J. [6], Wallis, John-D. [7], Avarvari, Narcis [8]
Editeur	Royal Society of Chemistry
Type	Article scientifique dans une revue à comité de lecture
Année	2011
Langue	Anglais
Numéro	10
Pagination	2279-2286
Volume	35
Titre de la revue	New Journal of Chemistry
ISSN	1144-0546
Résumé en anglais	The synthesis and crystal structures of five radical cation salts based on the organic donors bis(ethylenedithio) tetrathiafulvalene (BEDT-TTF), racemic ethylenedithio-methyl-oxazoline-tetrathiafulvalene (EDT-TTF-MeOx) and the enantiopure (S,S,S,S) and (R,R,R,R) tetramethyl-bis(ethylenedithio) tetrathiafulvalene (TMBEDT-TTF) and the D(3)-symmetric anion tris(tetrachlorobenzenediolato) phosphate(V) (TRISPHAT) are reported. The salts are formulated as [BEDT-TTF][(rac)-TRISPHAT]center dot CH(2)Cl(2) (1), [BEDT-TTF][(rac)-TRISPHAT]center dot 2CH(3)CN (2), [(rac)-EDT-TTF-Ox][(rac)-TRISPHAT]center dot CH(3)CN (3), [(S,S,S,S)-TMBEDT-TTF][(rac)-TRISPHAT] center dot 2CH(3)CN (4), and [(R,R,R,R)-TMBEDT-TTF][(rac)-TRISPHAT]center dot 2CH(3)CN (5). The donors are fully oxidized and self-assemble in dyads inserted in the channels generated by the packing of the TRISPHAT anions. Magnetic and EPR measurements performed on compounds 1 and 2 clearly indicate weak interactions within the dimers in compound 1, characterized by a very narrow line in the EPR spectrum, while the radicals are strongly coupled in compound 2.
URL de la notice	http://okina.univ-angers.fr/publications/ua2656 [9]
DOI	10.1039/c1nj20310j [10]

Liens

[1] http://okina.univ-angers.fr/publications?f[author]=2651
[2] http://okina.univ-angers.fr/publications?f[author]=2851
[3] http://okina.univ-angers.fr/publications?f[author]=2881
[4] http://okina.univ-angers.fr/publications?f[author]=2735

[5] http://okina.univ-angers.fr/publications?f[author]=19104
[6] http://okina.univ-angers.fr/publications?f[author]=3418
[7] http://okina.univ-angers.fr/publications?f[author]=2553
[8] http://okina.univ-angers.fr/narcis.avarvari/publications
[9] http://okina.univ-angers.fr/publications/ua2656
[10] http://dx.doi.org/10.1039/c1nj20310j