



# Carboxylic acid derivatives of tetrathiafulvalene: key intermediates for the synthesis of redox-active calixarene-based anion receptors

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Auteur	Zhao, Bang-Tun [1], Blesa, María-Jesús [2], Le Derf, Franck [3], Canevet, David [4], Benhaoua, Chahrazed [5], Mazari, Miloud [6], Allain, Magali [7], Sallé, Marc [8]
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Résumé en anglais	<p>A series of calixarene-TTF (TTF=tetrathiafulvalene) receptors incorporating amide binding units for anion recognition have been synthesized and characterized. For this purpose, two synthetically versatile new TTF carboxylic acid derivatives were prepared and characterized by X-ray diffraction, these structures demonstrating the critical role of the carboxylic function in the solid-state organization. Some of the calixarene-amide-TTF assemblies exhibit strong binding of various anions, as shown by <sup>1</sup>H NMR titration studies, and one receptor is able to electrochemically respond in the presence of H<sub>2</sub>PO<sub>4</sub><sup>-</sup>, C<sub>6</sub>H<sub>5</sub>CO<sub>2</sub><sup>-</sup> or CH<sub>3</sub>CO<sub>2</sub><sup>-</sup> anion.</p>
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