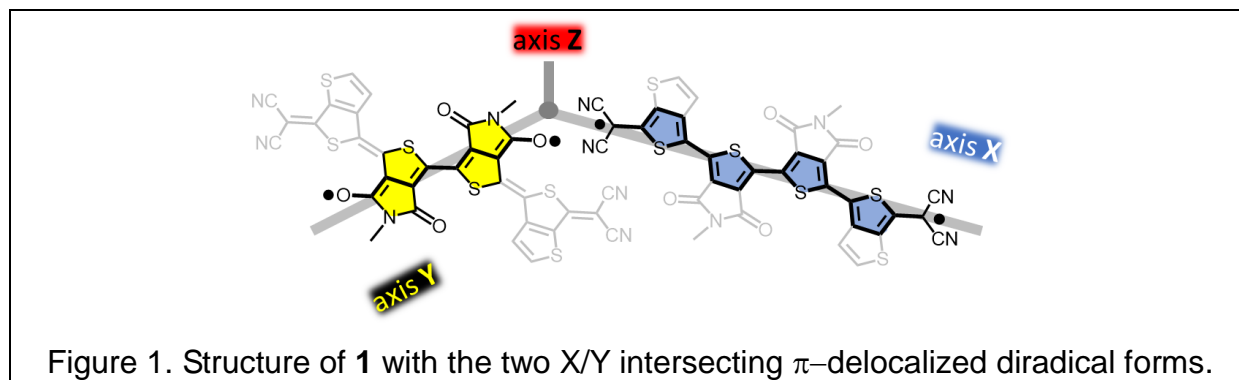


## 2D-Delocalized vs Confined Diradicals

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Diradicals are beautiful chemical objects where the more basic and intricate aspects of the chemical bonding are revealed.<sup>1</sup> Not this being important enough, nowadays, diradical-based substrates are becoming very appealing for new organic electronic applications. We focus here in  $\pi$ -conjugated organic diradicals formed by competition between non-aromatic quinoidal structures and their canonical aromatic forms. How this quinoidal(closed-shell)-vs-aromatic(open-shell) energetic balance producing the diradical is affected by several situations has been our objective in the last few years.<sup>2</sup> Now, we focusses on how the properties of diradicals are influenced when several diradical canonical forms are available in such a way that create a 2D (i.e., bidimensional)  $\pi$ -electron delocalization surface in which the diradical substructures are in cross-conjugation mode producing the curious effect of diradical confinement.<sup>3</sup>



Herein, the diradical molecular properties of compound **1** in Figure 1 will be discussed in connection with 2D delocalization, cross-conjugation and  $\pi$ -surface confinement.

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