An unprecedented π-electronic circuit involving an odd number of carbon atoms in a grossly warped non-planar nanographene

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Abstract
The formation of π-aromatic circuits along a grossly warped nanographene, C80H30, containing five- and seven-membered rings inserted into a six-membered mesh, reveals global π-circuits at the edge of the backbone. Based on DFT calculations, one of the two most favorable circuits for π-electron delocalization formally has 50 π-electrons abiding by Hückel's rule, whereas the second one formally has 75 π-electrons and, remarkably, it does not follow any of the known rules of aromaticity.