

# DISCLOSING SIX-POHYRIN NANORING'S AROMATICITY

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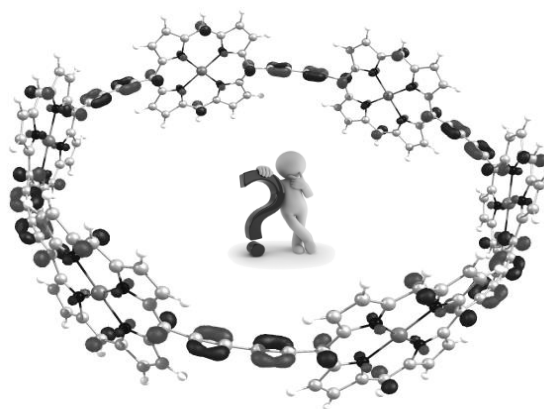
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Porphyrin nanorings are interesting compounds because they offer an end-free  $\pi$ -conjugated system with remarkable properties such as photophysical and guest-encapsulating.<sup>[1]</sup> Aromaticity is a multifold property<sup>[2]</sup> that is useful to understand the electronic structure of such belt-shaped  $\pi$ -systems. Herein we focused in FLU, HOMA and AV1245<sup>[3]</sup> to provide an electronic structure assessment of these hoop structures.

In this project, the aromaticity of a six-porphyrin nanoring in four different oxidation states (neutral, tetracationic, hexacationic and dodecationic species)<sup>[4]</sup> has been studied. Aromaticity indices reveal the local and global changes of aromaticity among the different studied species of the nanoring as well as the role of the connectors between the porphyrins.



**Figure 1.** HOMO of the neutral six-porphyrin nanoring.

## References

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