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GLOBAL AROMATICITY AT THE NANOSCALE

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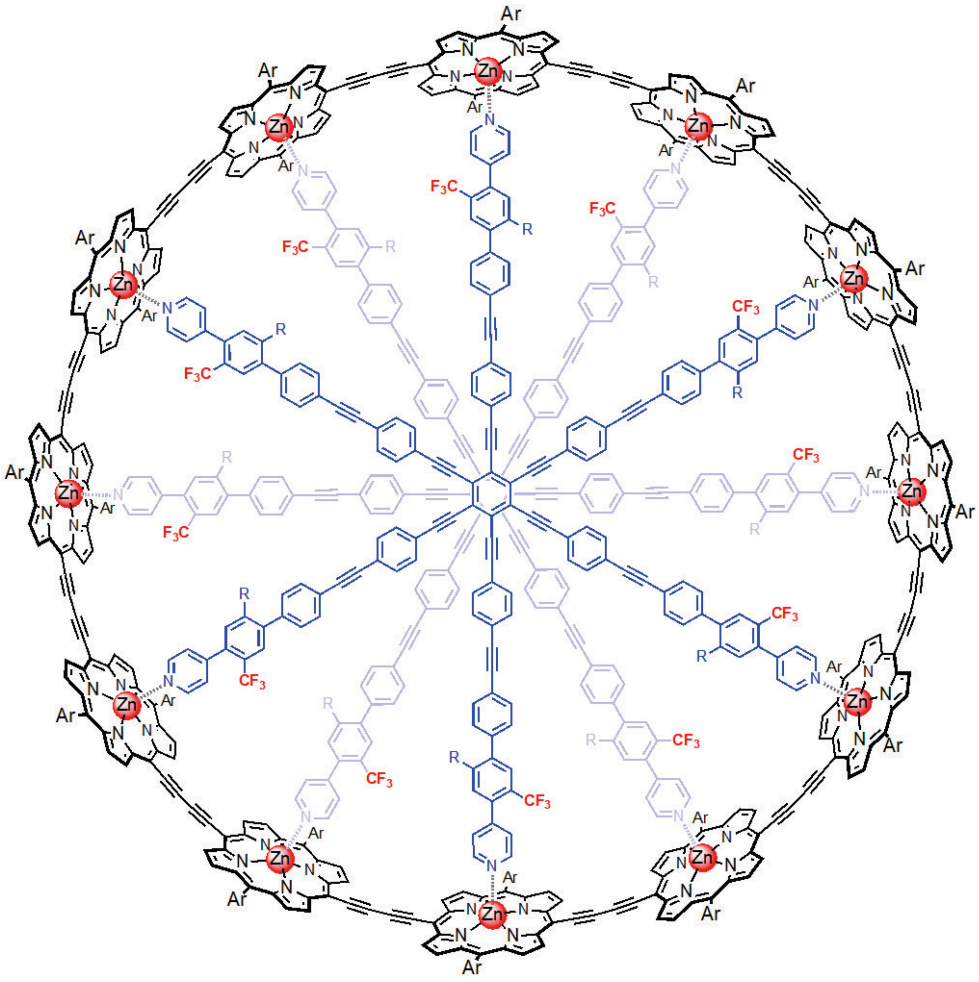
Aromaticity was once thought to be limited to molecules with less than 22 π-electrons. We have discovered that global aromatic ring currents can lead to charge delocalization in large porphyrin nanorings[1] and that the Hückel 4*n* + 2 rule is obeyed in the cations of these macrocycles with up to 162 π-electrons (*n* = 40).[2] Recent result on aromatic nanorings, such as the complex shown below, will be presented.



REFERENCES

[1] M. D. Peeks, T. D. W. Claridge, H. L. Anderson, *Nature* **2017**, *541*, 200–203.

[2] M. Rickhaus, M. Jirasek, L. Tejerina, H. Gotfredsen, M. D. Peeks, R. Haver, H.-W. Jiang, T. D. W. Claridge, H. L. Anderson, *manuscript submitted*.