Title: **Beyond pi aromaticity.**
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Currently, the concept of aromaticity is in continuous expansion, not only limited to pi aromaticity but also have been discovered in various compounds other types of aromaticity, such as sigma and delta. As it is a subject that is in constant development, over the last years of research, new aromatic and double aromatic systems have been found. Therefore, it is very probable that in near future other new systems and features will be discovered.

The most commonly known aromaticity is generated from the electronic delocalization π on the same ring, but the term of **double aromaticity** has now been discovered theoretically and experimentally, consisting of two rings of delocalized orbitals (pi + sigma). In addition, it has also been investigated the delta aromaticity exhibited by compounds with transition metals as substituents.

In this investigation I have intended to perform an analysis from theoretical and experimental tests to verify the double aromaticity in a set of systems, using quantum chemical tools from the calculation of existing magnetic, electronic and geometrical aromaticity criteria.

This study has made it possible to understand the distribution of electronic delocalization in doubly aromatic systems and to confirm a greater stability of benzene in front of systems with double aromaticity.

Keywords: Aromaticity, bibliography, computational chemistry, DFT, aromaticity index, electron delocalization, benzene.