CARBO-BENZENES' PROSPECTS OF APPLICATIONS:

MESOGENIC AND PHOTO-PHYSICAL/-CHEMICAL PROPERTIES

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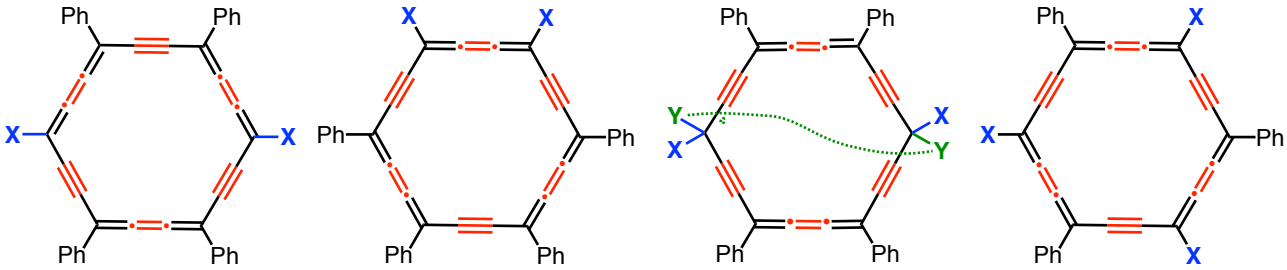
Over the last decade, highly π-electron-rich *carbo*-benzenes and related molecules, so-called for resulting from C_6–>C_{18} dicarbon-expansion of the aromatic core parent benzene derivatives,[1,2] collaborations with dedicated molecular materials physicists revealed several prospects of application, upon suitable functionalization, e.g. in electrical conduction,[3] optical absorption,[4] photo-sensitization,[5] redox switch,[6] supramolecular association[7] or molecular inclusion.[8] This will be illustrated by selected examples for the design of new types of liquid crystals,[7] NIR two-photon absorbers,[4] and photocatalysts of water splitting.[5]



X, Y: property-specific aryl or alkynyl groups

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