The pi-extended and fully organic chromophores are dynamically explored and play important role in material science, but also in medicine and optoelectronic as they can be treated as extremely effective materials with efficient e.g. absorption and emission in the visible region. Unsaturated and strongly conjugated compounds found their place also in the field of organic electronic as structural elements for construction of optoelectronic devices but also serving as conducting materials. Materials like that have found many applications in this field organic electronic as organic-field transistors (OFET), elements of solar cells, or organic electroluminescence. Beside that there were also extensively tested towards the applicability as capacitors and batteries. Because of the broad availability of 4n+2 unsaturated pi-systems (so-called 'aromatic') the possible applicability has been dominantly tested and verified for those compounds even if the potential (e.g. conductivity, charge mobility etc.) is anticipated more efficient for 4n-pi-systems. The unsaturated structures built of sp2/sp hybridised atoms kept in cyclic organisation of 4n pi-electrons are creating a wide scope of potential applications as very efficient conductors because of a different organisation of electron configuration that leads to possible substantial contribution of open-shell system with a diradical(oid) character responsible for charge mobility and redox activity. Those compounds are usually named as antiaromatic following the term coined by Breslow back in 1973 and defined mostly in contrast to the Hückel description of 4n+2 pi-electrons systems (and called aromatic). A significant potential of paratropic (antiaromatic) compounds is dormant because of the limited availability of the systems open for controlled modifications, but what more important this field suffers from substantial under development of fundamental aspects including synthetic approaches and deep analysis of potential properties to increase the level of control. The antiaromatic character is correlated usually with lower resonance energy leading to higher reactivity and substantially smaller HOMO-LUMO gaps with respect to their aromatic counterparts. From that perspective exploration of antiaromatic compounds remains an emergency field that remains underdeveloped not defining critical structural aspects allowing to precisely design and execute formation of desired systems. It must be underlined that stability of antiaromatic systems and their availability create a 'hot topic' in modern organic materials research. The archetypal 4n-pi-electrons system of cyclobutadiene shows an extreme reactivity that has been tamed by surrounding with two C6 rings forging eventually the synthetic approach of competing local and global conjugations of diatropic or paratropic character. The effect of competition between local and global effects of conjugation by fusing additional C6 rings with diatropic character has been also incorporated to stabilize pentalene core with 8pi system. The classical [8]annulene core of cyclooctatetraene designed similarly but in addition it has been planarized by incorporation of heterobridges forcing more efficient planarity and keeping the main core carbon based. Heteroatom has been also applied as a bridging unit linking two C6 (6pi) rings in (potential 12pi)/b(potential 16pi) in a global variant, but also with a potential presence of local paratropic character of 4pi and 8pi, respectively. The main idea laying in the foundation of this project focuses on precisely designed and eventually executed formation of antiaromatic compounds with different degree of conjugation and changeable pi-cloud towards its stability and potential applicability.