

SI.1 About the "inherent chirality" term

In the literature many definitions/point of views about "inherent chirality" are present, with a misleading superimposition of the chirality and stereogenicity concepts.

Such definitions are usually associated with different typologies of stereogenic elements, implying torsions/curvatures of the molecular structure.

F. Sannicolò's definition is here adopted of "inherently chiral functional molecular materials" as chiral molecular materials in which the stereogenic element responsible for chirality coincides with the functional group responsible for the material specific property.

This definition in itself implies no restriction in the kind of stereogenic element. However, the above concept has been effectively implemented as a tailored torsion in the molecular backbone obtained by stereogenic elements like atropisomeric or helical ones (of course with high energy barriers for torsion inversion).

In the peculiar case of inherently chiral conducting polymers, such molecular design strategy implies a stable torsion in monomeric units regioregularly propagating into very stable foldamers.

SI.2 A more exhaustive literature casebook about Chiral Electronically Conducting Polymers/Copolymers/Oligomers

In this literature collection, mostly focused on the last two decades, studies on chiral electronically conducting polymers/copolymers/oligomers (**even not reporting applications of the active material for enantioselective electrochemistry, which is the specific object of the main article**) are classified according to the strategy adopted to introduce chirality in the electroactive film. The papers cited in the main article are indicated with the corresponding number.

A. REVIEWS ABOUT CECPs

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[18] L. Pu, **Novel chiral conjugated macromolecules for potential electrical and optical applications** *Macromol. Rapid Commun.* 21 (2000) 795-809. (with 75 refs., particularly focusing on binaphthyl stereogenic elements)

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B Studies reporting on CEC polymers/copolymers/oligomers in which chirality originates from **units bearing pendants with one or more stereocenters**

B1 Including thiophene units

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