

Chiroptical Systems on the Road to Sensing

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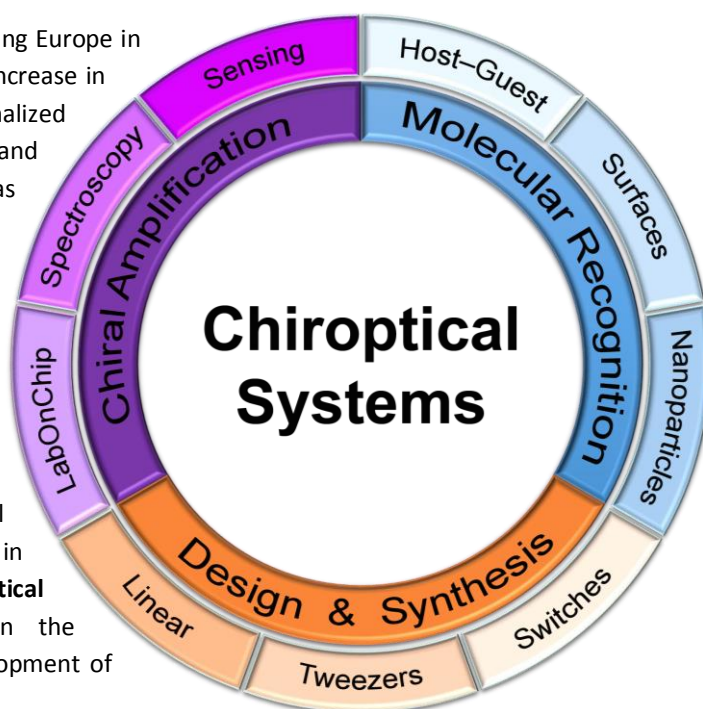
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Abstract

Population aging is one of the major problems facing Europe in the coming years and this inevitably leads to an increase in chronic diseases and in the need for personalized medical monitoring and care. To reduce costs and expand the variety of monitored diseases as well as detection limits and accuracy, new sensing methodologies are required. The development of powerful **Chiroptical Systems** will open possibilities for unique sensing modalities due to their high sensitivity to conformational changes and supramolecular interactions.

We **Designed and Synthesized** chiral organic molecules with outstanding chiroptical responses^[1,2] that undergo **Molecular Recognition** in solution^[3] and surfaces^[4] showing **Chiroptical Amplification**. Currently, we are working on the development of tailored molecules for the development of LabOnChip devices for sensing applications.



Chirality · Self-assembly · Chiroptical responses

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