

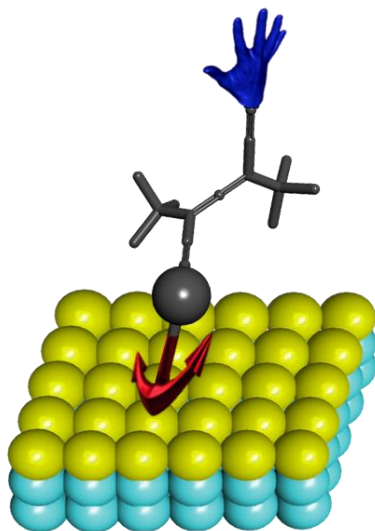
Chiroptical Surfaces through Monolayer-Thin Up-standing Chiral Architectures

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The high sensitivity of chiroptical spectroscopies to conformational changes and supramolecular interactions is routinely used not only for absolute configuration¹ and conformational assignments² but also for the characterization of molecular assemblies where at least one of the components is chiral.³ In order to improve the chiroptical sensitivity, great effort has been made on the design and synthesis of systems presenting enhanced chiroptical responses in solution.⁴ However, the chiroptical responses of surfaces functionalized with a single monolayer of small molecules have not been explored to the best of our knowledge. With this goal in mind, we herein present the synthesis of thiol-derivatized chiral frameworks and their use for the functionalization of surfaces. The stability of the formed UCAs at room temperature due to the presence of S–Au bonds enabled the observation of chiroptical responses by means of second harmonic generation spectroscopy on a custom-made transparent substrate.



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