When enantioselective high-performance liquid chromatography (eHPLC) is hyphenated with detection systems based on chiroptical properties, in particular circular dichroism (CD), the stereochemistry of a chiral analyte can be fully determined. Indeed, eHPLC-CD systems allow the simultaneous assessment of the absolute configuration of stereoisomers and the evaluation of the enantiomeric/diastereomeric composition of samples. These features are particularly important in pharmaceutical analysis, because the assignment of the absolute stereochemistry of drugs is essential to establish reliable structure–activity relationships [1]. An extremely useful application of the eHPLC-CD technique is given by the stopped-flow method: the chromatographic fractions of the analyzed chiral compound are trapped inside the cell of the CD detection system, allowing the measurement of full UV and CD spectra without time-consuming collections of the pure stereoisomers for standard CD spectroscopic analysis. We report the development and application of stopped-flow eHPLC-CD methods for the resolution of a series of inherently chiral O-substituted C-undecylresorcin[4]arenes, recently synthesized by weak-base-promoted O-alkylation [2], with the future aim of characterizing their stereochemistry by means of density functional theory (DFT) calculations.