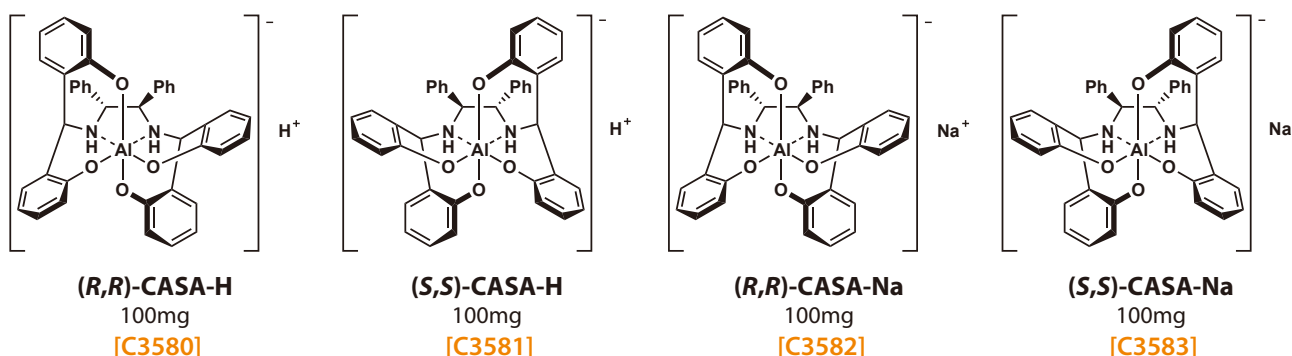


# CASA: Aluminum Complexes as Chiral NMR Shift Reagents

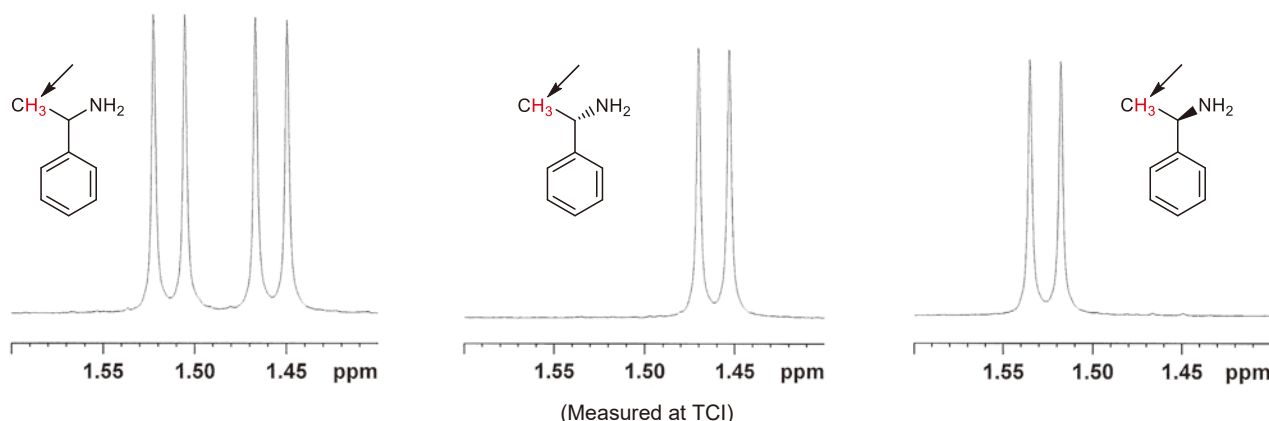
CASAs are chiral hexa-dentate aluminum complexes utilized in the measurement of optical purity by NMR. When a mixture of a substrate and CASA are measured in NMR, the chemical shifts of the protons adjacent to oxygen and nitrogen functions are shifted, thereby resolving the peaks of the two enantiomers present. Furthermore, CASA series compounds are able to determine optical purity by NMR in both polar and non-polar deuterated solvents.

Reference M.-S. Seo, H. Kim, *J. Am. Chem. Soc.* **2015**, 137, 14190. <https://doi.org/10.1021/jacs.5b09555>



## Applications

NMR measurement of a mixture of (*R,R*)-CASA-H and 1-phenylamine (400 MHz, CD<sub>3</sub>OD, racemic, *S* form, *R* form on right)



These products are commercialized under the instruction of Dr. Hyunwoo Kim.

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