Building boron heterocycles into DNA encoded libraries

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ABSTRACT: DNA encoded library (DEL) technology uses DNA tags to track the synthetic history of individual members in a split-and-pool combinatorial synthesis scheme. DEL synthesis hinges on robust methodologies that tolerate combinatorial synthesis schemes while not destroying the information in DNA. We introduce here a DEL compatible reaction that assembles a boron-containing pyridazine heterocycle. The heterocycle is unique because it can engage in reversible covalent interactions with alcohols—a feature that, until now, has not been deliberately engineered into DELs.





[1] Cai, P., Schneider, L. A., Stress, C., & Gillingham, D. (2021). Building Boron Heterocycles into DNA-Encoded Libraries. Organic letters, 23(22), 8772-8776.