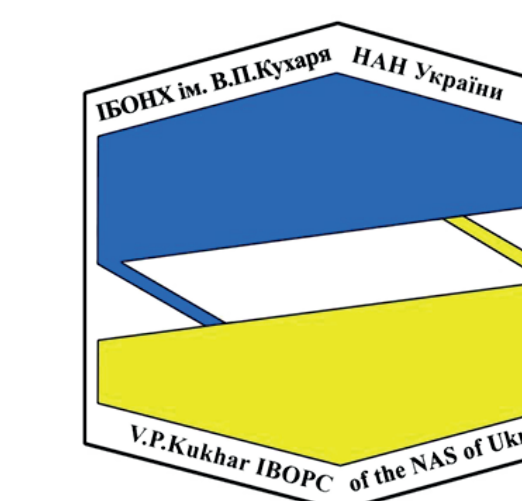


Deoxyfluorinative approach towards fluorine-substituted organoboronates

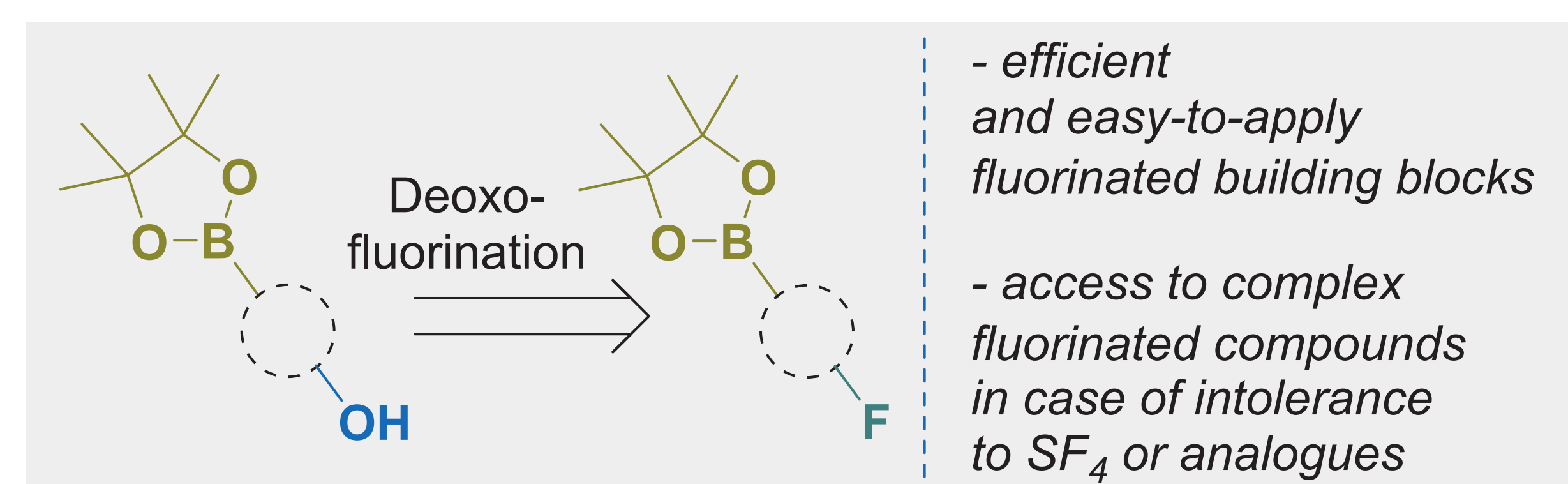


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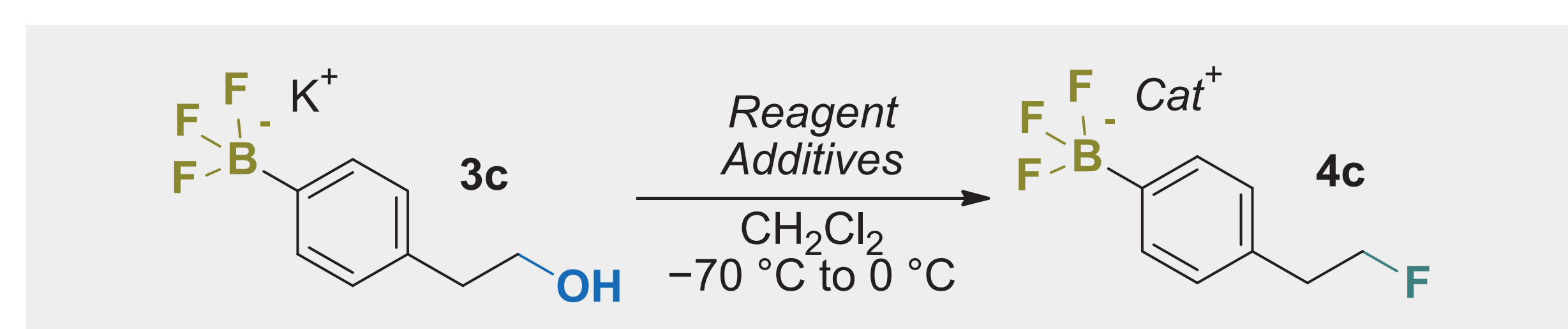
Concept of the Project

A Divergent Approach to Complex Fluorinated Molecules:

- Access to novel F-BBs;
- Substrate-dependent reactivity;
- Deoxofluorination protocol for compounds with high Fluorine Ion Affinity (FIA).



Reaction Development

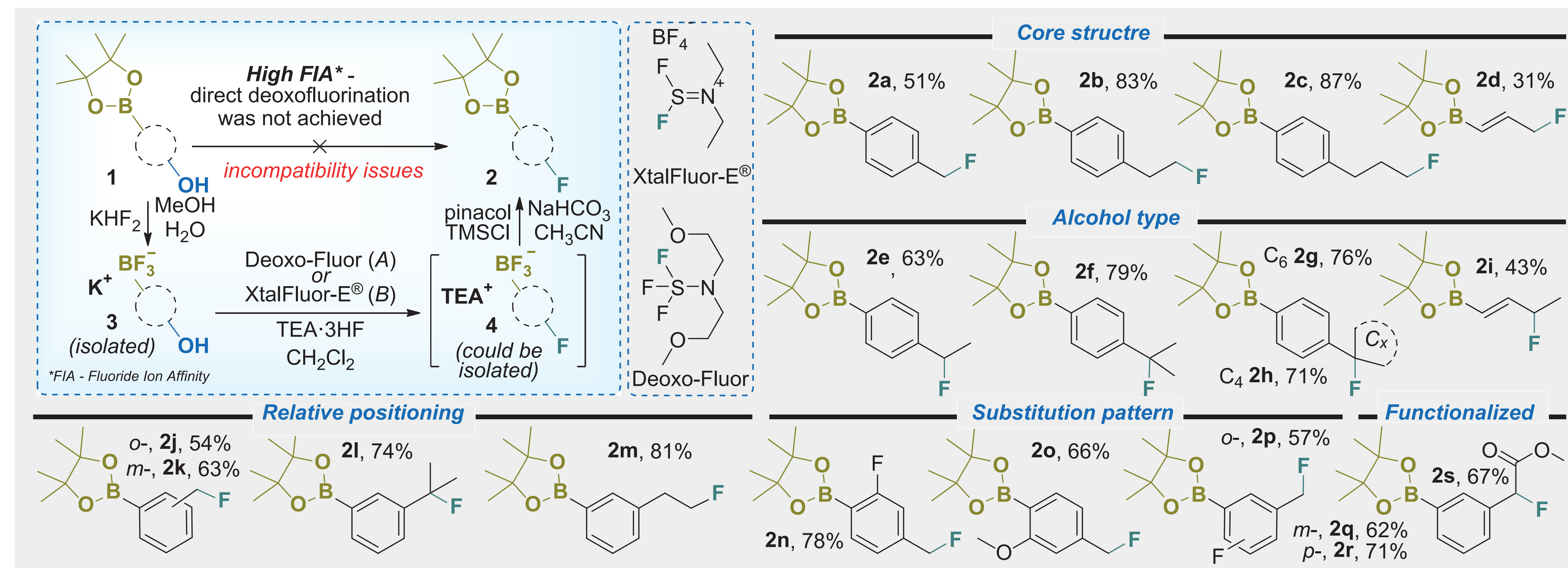


Reagent	Additives	Conv., %	Yield, %
XtalFluor-E®	-	20	10
	DBU·HF	24	17
	Py·HF	25	20
	TEA·3HF	60	48
	2 eq TEA·3HF	77	59
	3 eq TEA·3HF	90	65
DeoxoFluor	2 eq TEA·3HF	74	70
	3 eq TEA·3HF	100	95

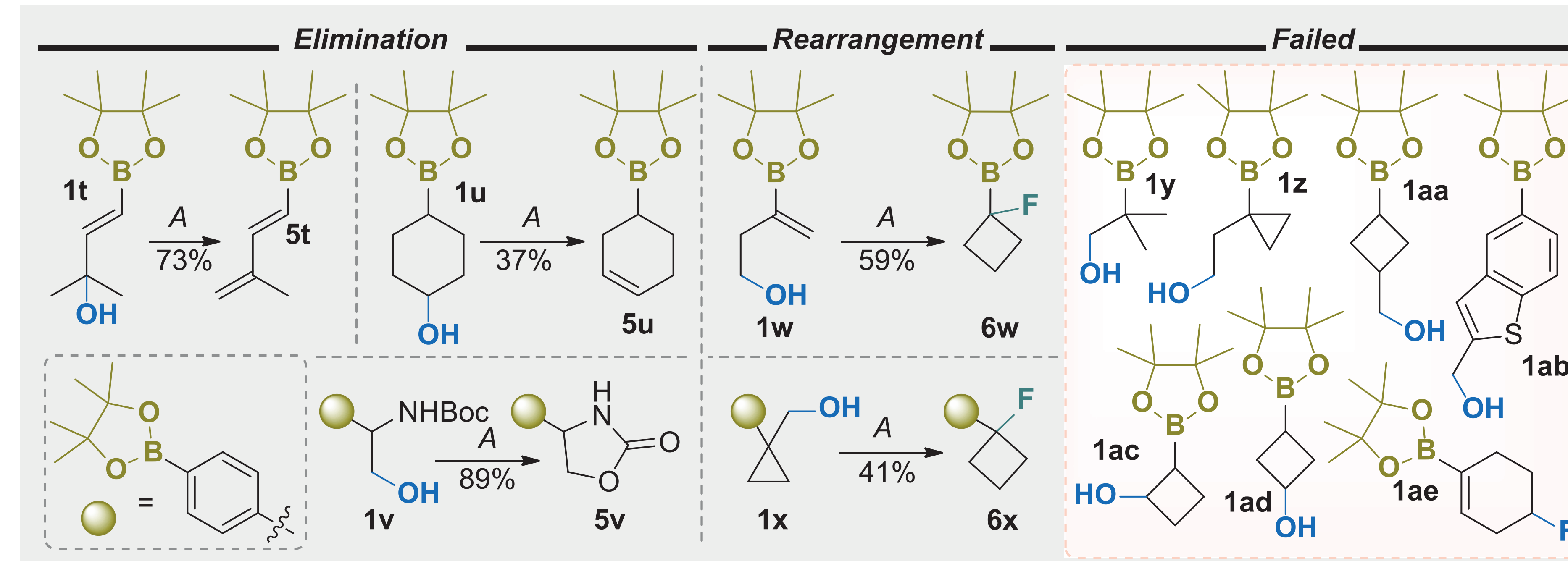
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Scope of the transformation



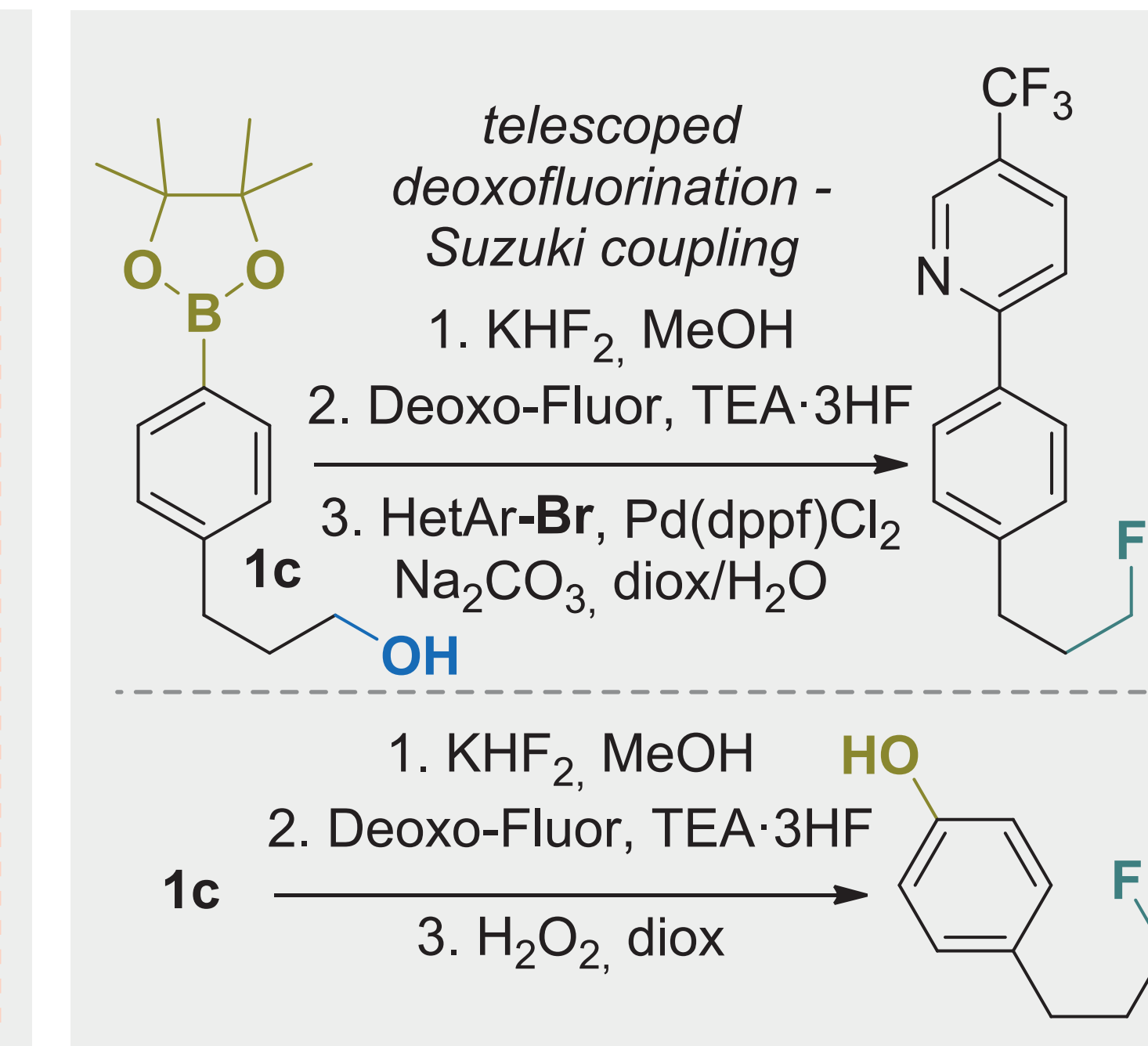
Limitations and alternative reactivity



Conclusion and outlook

- Conventional deoxofluorination strategies could face incompatibility issues on late-stage fluorination of complex molecules;
- Simple preparation of fluorinated organoboronates and application thereof (including telescoped procedures) eliminates this obstacle, giving rise to a broad class of novel fluorinated building blocks.

Application



Funding

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