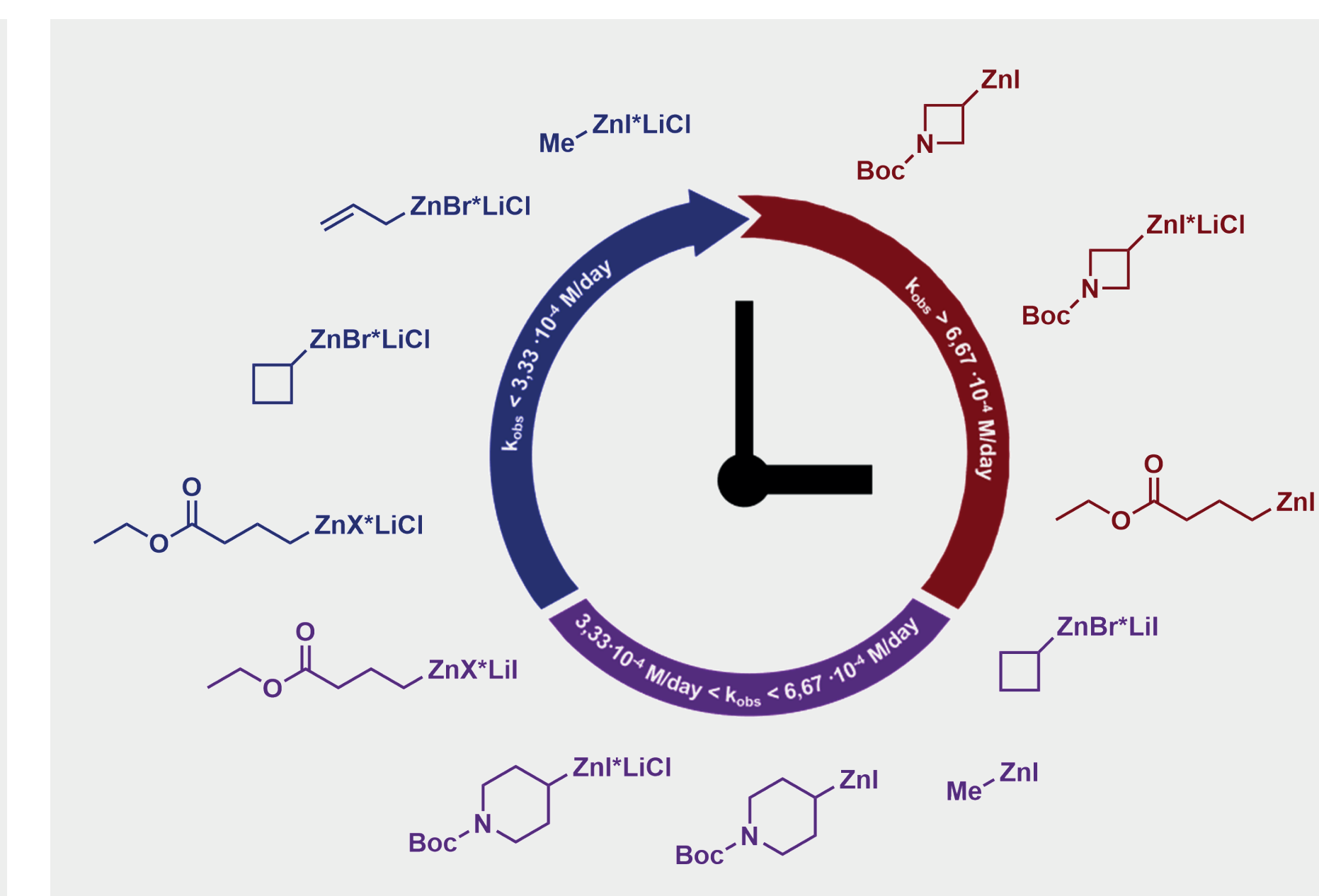
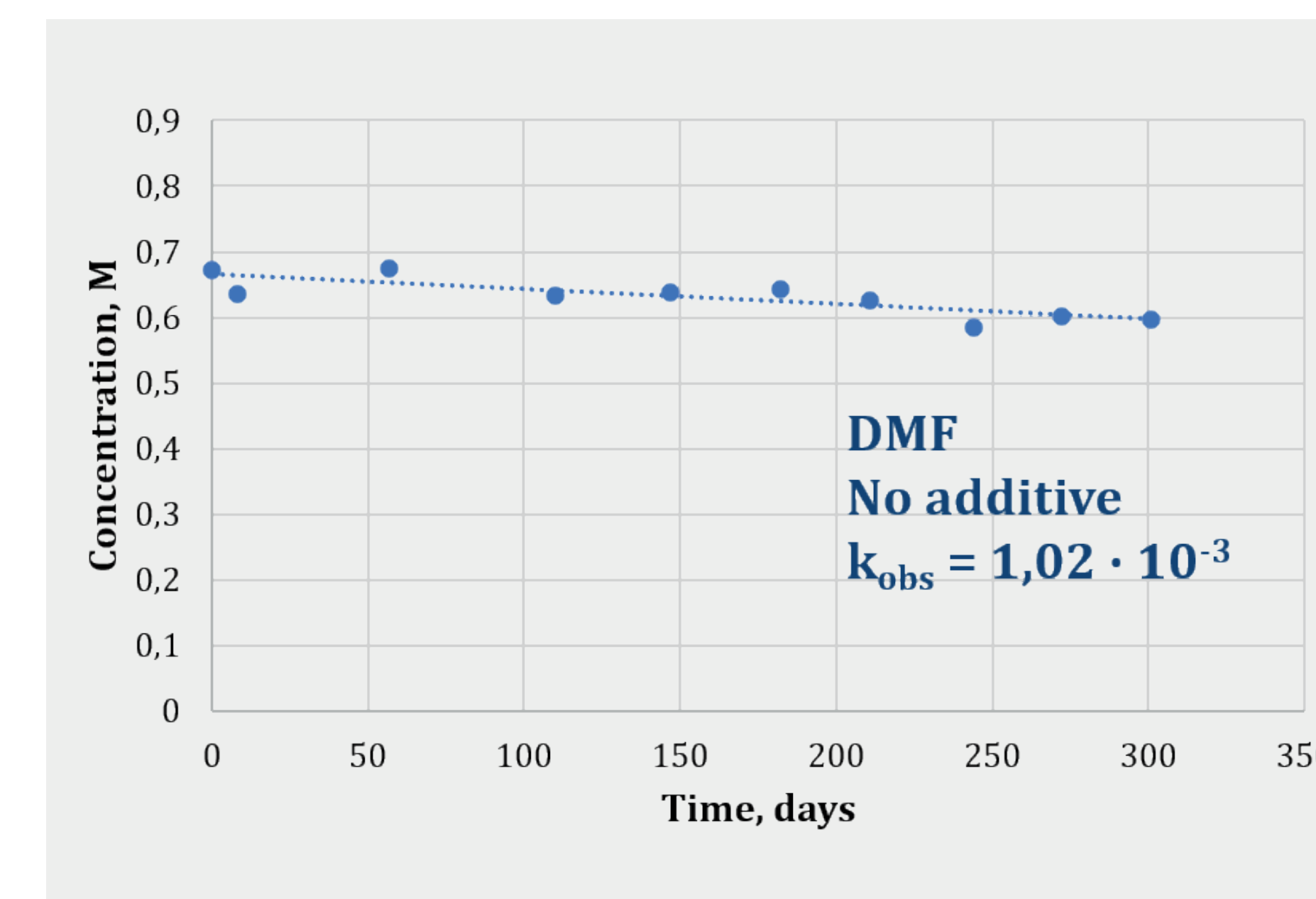
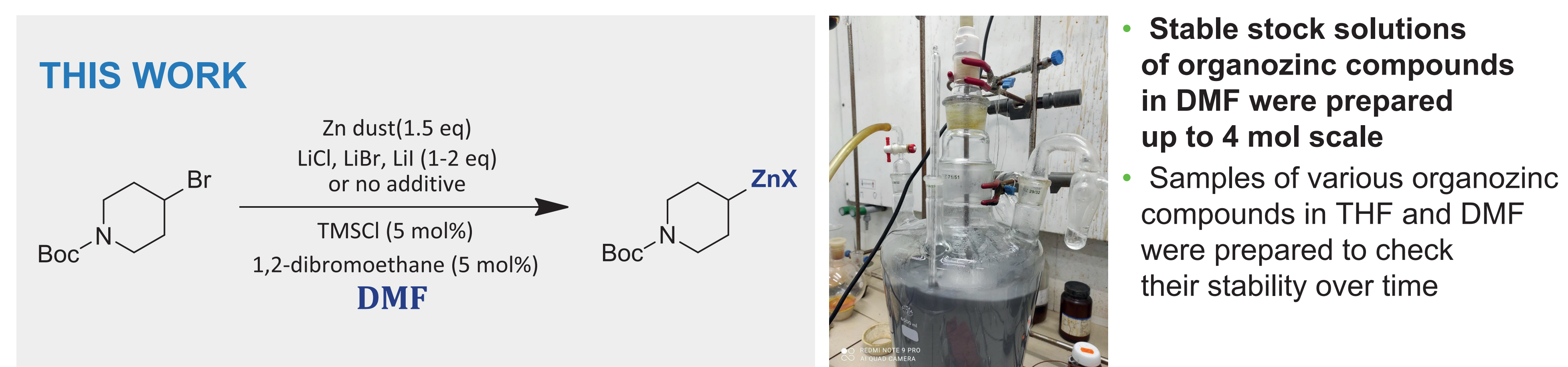


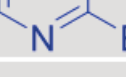
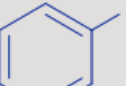
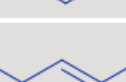
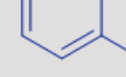
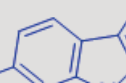
The Enamine logo, featuring the word "Enamine" in a blue, italicized sans-serif font, with the "E" being significantly larger and bolder than the rest of the word. The logo is positioned in the bottom right corner of the slide.

Stability of organozinc compounds towards decomposition



- The concentration of organozinc reagent samples was measured by iodometry for a period of up to 10 months
- The concentration of organozinc reagents decreased linearly with kobs varying from $1.2 \cdot 10^{-3}$ to $12.4 \cdot 10^{-3}$ day⁻¹
- All samples of organozinc compounds can be efficiently used for a period from 6 to 12 months as a reagent for a Negishi cross-coupling
- The choice between DMF and THF as a solvent does not have a significant impact on the stability of organozinc reagents towards decomposition

Reaction scheme showing the synthesis of 4-phenyl-1-(tert-butoxycarbonyl)piperidine from 1-(tert-butoxycarbonyl)piperidine and a substituted benzyl bromide (Het-Ph-Br) using a catalyst (2.5 mol %), DMF or THF, and LiCl or no additive.

	THF Pd-PEPPSI-IPent No additive	DMF Pd-PEPPSI-IPent No additive	THF Pd-PEPPSI-IPent LiCl	DMF Pd-PEPPSI-IPent LiCl	DMF Pd(dppf)Cl ₂ No additive
	61%	75%	61%	82%	85%
	60%	61%	62%	80%	53%
	86%	91%	91%	100%	79%
	15%	94%	66%	100%	3%
	21%	2%	14%	0%	80%
	25%	0%	17%	5%	17%
	13%	0%	21%	12%	27%

- Samples of N-Boc piperidine zinc halide, varied in solvent (DMF or THF) and additive (with or without LiCl) used, were tested in cross-coupling reaction with heteroaryl halides
- Solutions of organozinc compounds in DMF in the presence of LiCl generally show higher reactivity in the Negishi cross-coupling reaction

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