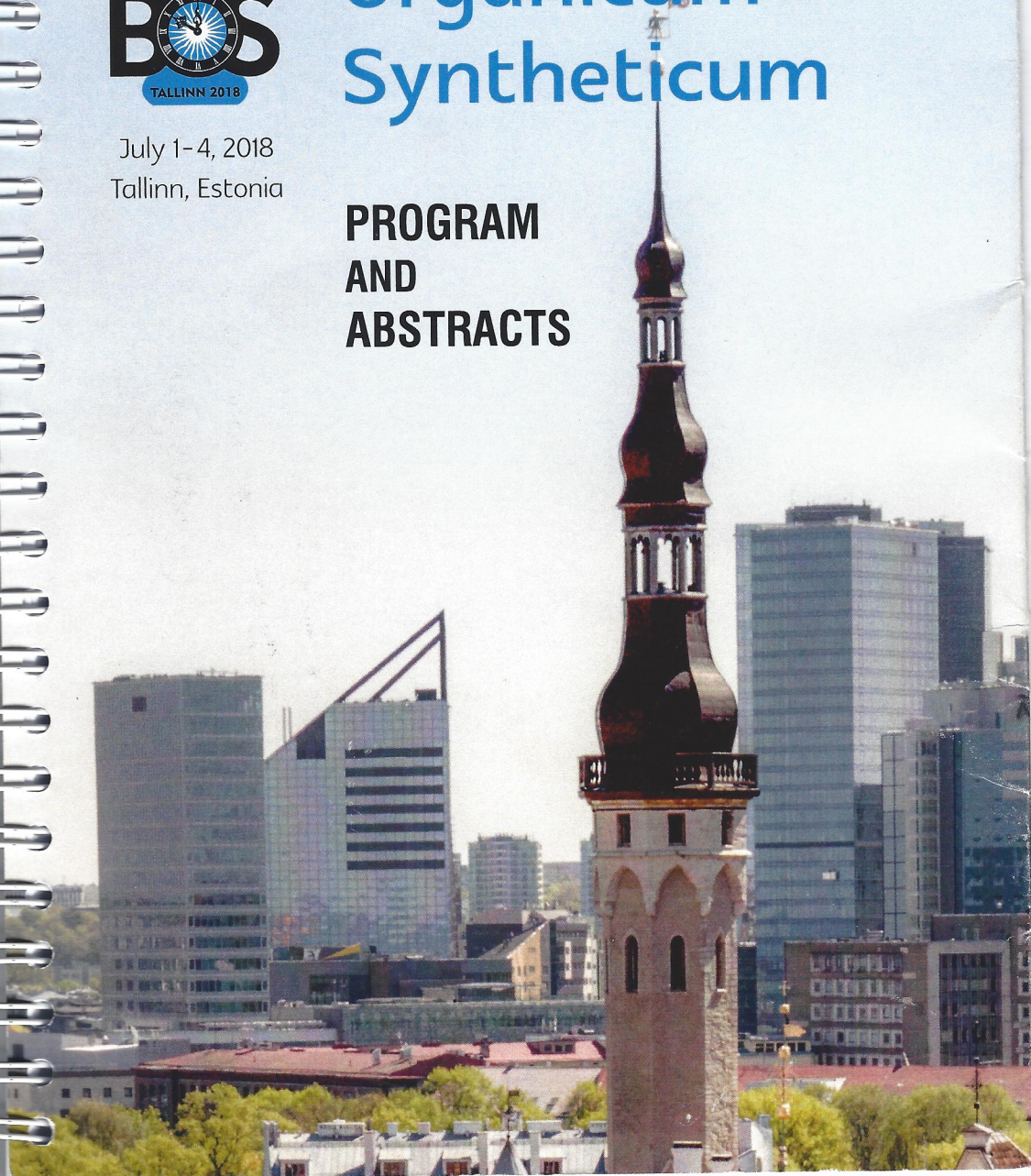


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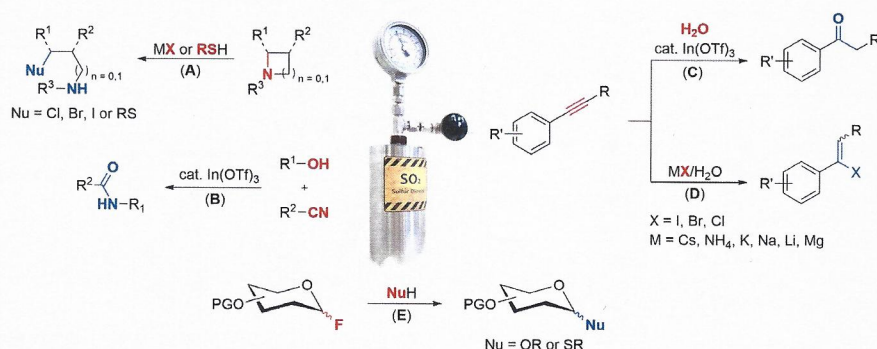
Organic Transformations Promoted by Liquid SO₂ as a Reaction Media

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Due to relatively high boiling point (-10 °C) and low vapor pressure (8 bar at 60 °C), SO₂ can be easily liquefied and handled in its liquid state. Liquid SO₂ is one of the few polar solvents that possess Lewis acid properties. Besides, it dissolves both organic and inorganic substances. All these facts together make liquid SO₂ a unique solvent for organic synthesis, especially, for transformations involving charged intermediates.

Herein we demonstrate application of liquid SO₂ as a solvent in various organic transformation that are known to be facilitated by highly polar or Lewis acidic media: (A) ring opening reactions of unprotected and carbamate-protected aziridines and azetidines with I,II group metal halides and thiols;¹ (B) the Ritter reaction of alcohols catalyzed by In(OTf)₃; (C) In(OTf)₃ catalyzed alkyne hydration; (D) indirect hydrohalogenation of alkynes by employing various I,II group metal halides (I, Br, Cl) and NH₄I; (E) glycosylation reaction of alcohols and thiols³.



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 (b) Lugiņina, J.; Turks, M. *Synlett* **2017**, 28, 939.
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