

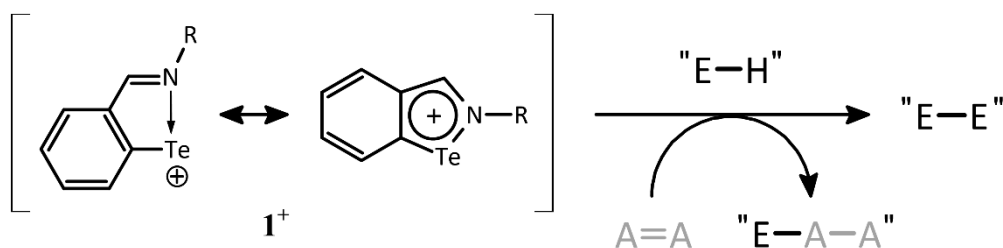
## UNSEEN REDOX E-H BOND ACTIVATIONS USING TELLURIUM-CENTERED LEWIS ACID

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Our recently synthesized ion pair containing novel Te<sup>II</sup> cation **1**<sup>+</sup> [1, 2] proved itself useful in B-H bond activation in the carborane cage leading to the formation of a new Te-B covalent bond.<sup>[3]</sup> Based on this unparalleled reactivity in the field of tellurium species, activation of various E-H bonds was studied under stoichiometric and catalytic conditions. Within this contribution, an overview of novel organotellurium (Te<sup>II</sup> and Te<sup>IV</sup>) cations capable of various surprising redox E-H bond activation reactions or not so common coupling reactions be presented.



**Figure 1.** Relevant resonance structures of cation **1**<sup>+</sup> and just part of its exciting reactivity.

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[1] Hejda, M.; Lork, E.; Mebs, S.; Dostál, L.; Beckmann, J. *Eur. J. Inorg. Chem.* **2017**, 3435–3445.

[2] Hejda, M.; Duvinage, D.; Lork, E.; Jirásko, R.; Lyčka, A.; Mebs, S.; Dostál, L.; Beckmann, J. *Organometallics* **2020**, 39, 8, 1202–1212.

[3] Hejda, M.; Duvinage, D.; Lork, E.; Lyčka, A.; Černošek, Z.; Macháček, J.; Makarov, S.; Ketkov, S.; Mebs, S.; Dostál, L.; Beckmann, J. *Chem. Eur. J.* **2021**, 27, 14577–14581.