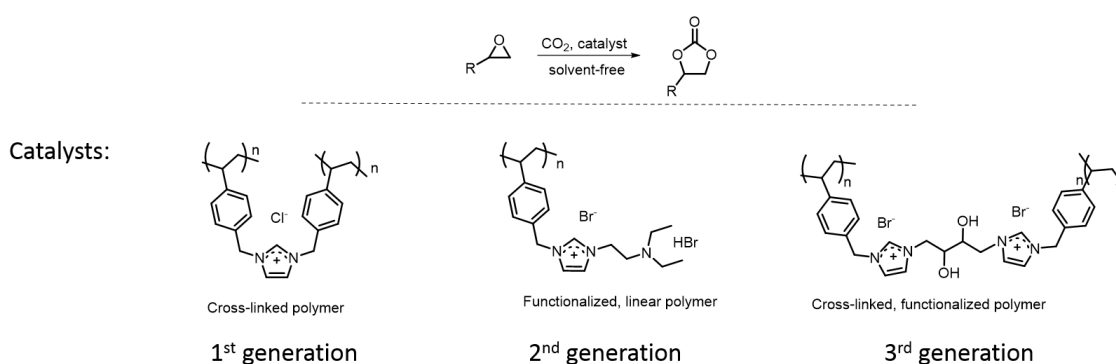


## Design of ionic polymer catalysts for the synthesis of carbonates from CO<sub>2</sub> and epoxides

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The synthesis of cyclic carbonates from epoxides and CO<sub>2</sub> (CCE reaction) is an atom-efficient, scalable reaction of industrial importance. It is an important example of a catalytic reaction highlighting the utilization of CO<sub>2</sub> as a building block. Numerous catalysts (both metallic and metal-free)[1] have been proposed for this reaction, and in particular, ionic liquids and ionic polymers have emerged as a class of potent catalysts in this transformation. In our group, we have prepared imidazolium-based polymers (Fig. 1) incorporating functional groups that are potent catalysts for the CCE reaction.[2-4]



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[4] F. D. Bobbink, A. P. Van Muyden, A. Gopakumar, Z. Fei and P. J. Dyson, *ChemPlusChem*, 2017, **82**, 144-151.