Reactive Extrusion: A Continuous Technique Where Solids are not the Arch-Nemisis

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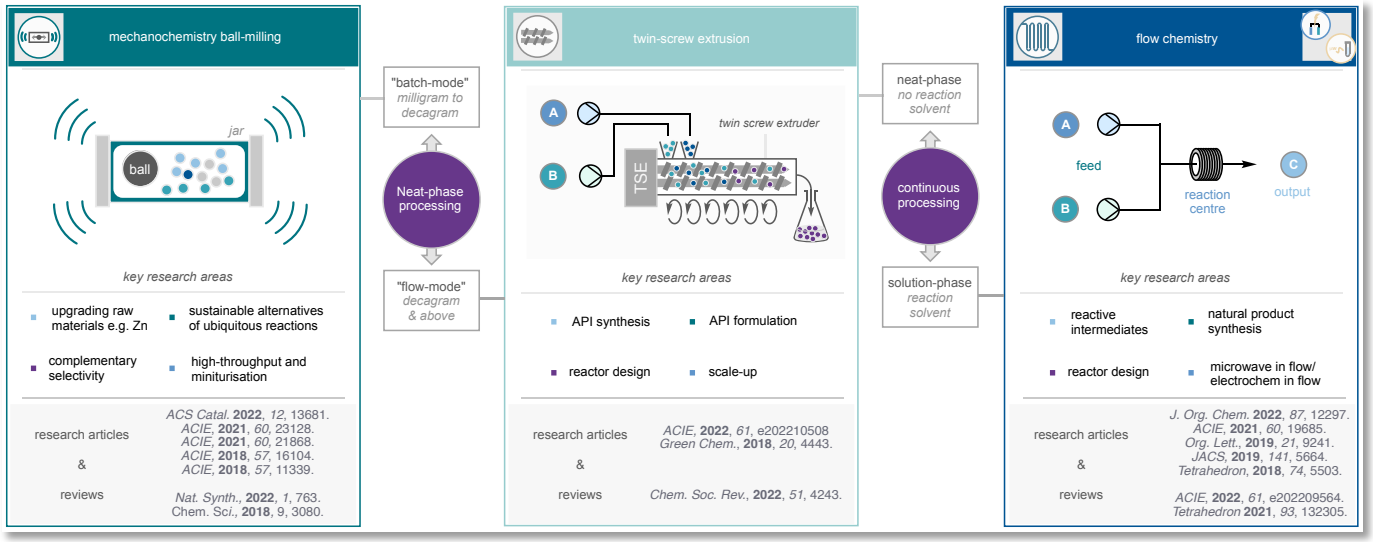
Mechanochemistry features the use of mechanical force to elicit a chemical transformation. Typically, such reaction processes do not require a bulk reaction solvent. Whilst the use of mechanochemistry has been known for some time in areas such as formulation, forensics and geology, its use for the construction of organic molecules is relatively new.



The potential solvent savings afforded by mechanochemistry techniques are particularly appealing at larger scales, yet the absence of a bulk solvent to dissipate heat makes a batch milling process particularly hazardous. This talk will focus on developments in continuous mechanochemistry through the technique of reactive extrusion.

[1] R. R. A. Bolt, S. E. Raby-Buck, K. Ingram, J. A. Leitch, D. L. Browne *Angew. Chem. Int. Ed.*, **2022**, e202210508
[2] R. R. A. Bolt, J. A. Leitch, A. C. Jones, W. I. Nicholson, D. L. Browne *Chem. Soc. Rev.*, **2022**, 4243-4260.