

26G-ISMS09 **Flow Chemistry: New Horizons in Chemical Space for the Creation of Next Generation Libraries**

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As a member of the European Lead Factory (ELF), Mercachem is responsible for generation, validation and production of libraries consisting of ~10,000 compounds from ~20 scaffolds per year.

This poster presents two examples where continuous flow chemistry facilitated the synthesis of scaffolds (and their corresponding libraries) with limited accessibility in batch processes. First, a 700 membered imidazolidinone library was smoothly prepared by the generation and subsequent reduction of an unstable and explosive azide keyintermediate in flow. Secondly, photochemistry in flow enabled the construction of two conformationally restricted three-dimensional aminoketone scaffolds at large scale in unprecedented efficiency.