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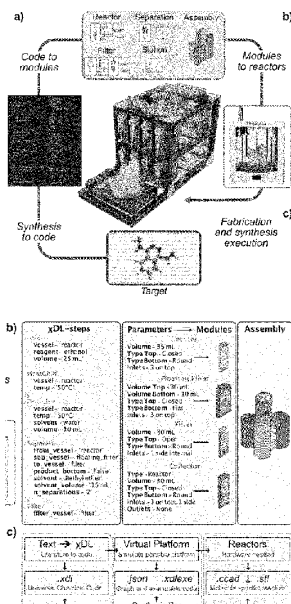
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(54) **Title: METHODS AND PLATFORM FOR CHEMICAL SYNTHESIS**

Fig. 1



(57) **Abstract:** The invention relates to a method and apparatus for performing and characterising a chemical synthesis, such as those performed with an automated chemical synthesis platform, including such that are portable platforms, the method comprising the steps of: performing a chemical synthesis in a chemical synthesiser; recording analytical data during the chemical synthesis, and developing a profile for the analytical data recorded over time; and comparing the profile for the chemical synthesis against a reference profile, which reference profile is the analytical data recorded over time for a reference chemical synthesis, wherein the chemical synthesis and the reference chemical synthesis share at least the same reagents and method steps for the same intended product, such as the chemical synthesis and the reference chemical synthesis sharing the same instruction set. The method and apparatus are for intended for use in replication of approved, chemical syntheses based on common reaction platforms.

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