

MicroCycle: An Integrated Design-Make-Test-Analyse Platform to Accelerate Drug Discovery

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We herein describe the development and application of a modular technology platform which incorporates recent advances in plate based micro-scale chemistry, automated purification, in-situ quantification and robotic liquid handling to enable rapid access to high quality chemical matter already formatted for assay. By integrating automated assay technology the platform is capable of delivering an array of profiling data to drive multi-parameter optimization in every learning cycle. The exploration of chemical and property space is hereby driven by active learning models. This enhanced compound optimization process is generating knowledge for drug discovery projects in a timeframe never before possible.