Chemspace Platform Enables Exploration of Chemical Space on a Trillion Scale

Researchers worldwide now have access to the largest pool of make-on-demand molecules.

Kyiv, Ukraine, Chemspace, a global provider of chemical compounds and drug discovery services, today announced the integration of the xREAL Space by Enamine, a contract research organization and the world's largest supplier of screening compounds and building blocks, into the Chemspace platform, allowing researchers to search and purchase trillions of compounds through a single online source.

This effort aims to address a critical bottleneck in early drug discovery. As virtual screening increasingly operates on a trillion-compound scale, researchers face a growing disconnect between computational hit identification and practical compound sourcing. Integration of Enamine xREAL Space bridges that gap, delivering more than simple catalog aggregation. Search results are provided using retrosynthetic analysis, enabling identification of hits in trillions of synthetically feasible molecules, which can then be purchased directly through the platform.

“The integration of Enamine's trillion-scale collection marks a significant step in how discovery teams access and act with such massive collections," said Olga Tarkhanova, PhD, CEO of Chemspace. She added: "For the first time, researchers are able to explore the world's largest chemically feasible spaces and move directly to procurement.”

Volodymyr Ivanov, PhD, Executive Vice President at Enamine, commented: “For 35 years of its existence, Enamine has been working on charting synthetically accessible chemical space. Enamine REAL is its representation. We are happy that exploration of such a massive chemical universe has become fast and easy now.”

About Enamine: Enamine is a scientifically driven, integrated discovery Contract Research Organization with unique partnering opportunities in exploring new chemical space. The company combines access to the in-house produced screening compounds (4.7 million in stock) and building blocks (350,000 in stock) with a comprehensive platform of integrated discovery services to advance and accelerate the efforts in Drug Discovery.

For more information, visit: https://enamine.net

About Enamine REAL: Enamine REAL compounds are a next-generation screening compound dataset that allows for exploration of zillions of previously unknown structures. Enamine REAL (REadily AccessibLe) contains trillions of synthetically feasible molecules that can be synthesized at Enamine extremely fast (3-4 weeks), with high feasibility (over 80%), and are inexpensive. The REAL Compounds are created by parallel chemistry through the compilation of 183,000 in-stock building blocks via 172 well-validated parallel synthesis protocols.

For more information, visit: https://enamine.net/compound-collections/real-compounds

About Chemspace: Chemspace is a global platform for discovering, designing, and delivering small molecules, providing integrated solutions for early-stage drug discovery through both online and offline platforms.

The Chemspace online platform offers a comprehensive solution for molecule discovery, purchasing, and procurement, enabling exploration of trillions of small molecules. With customizable catalog access, flexible purchasing options, and advanced compound management tools, the platform delivers a streamlined experience from search to synthesis.

The Chemspace offline platform provides end-to-end discovery services, including AI/ML-driven design, virtual screening, cheminformatics, and chemistry and biology services delivered in partnership with Enamine. This integrated approach supports hit identification, optimization, and biological validation within a coordinated workflow.

For more information, visit https://chem-space.com/search

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