Materials and drugs discovery with deep learning

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Using a new deep learning technology developed at the University of Cambridge, we analyse big, fragmented datasets, with a small number of well-characterized records, typically created at significant expense. Our new algorithm can extract an unprecedented amount of information, from datasets that are as little at 0.01% complete, inferring high value information that would be prohibitively expensive to obtain by observational, empirical, or experimental techniques.

Merging of experimental and simulation data into a holistic design tool resulting in the discovery of

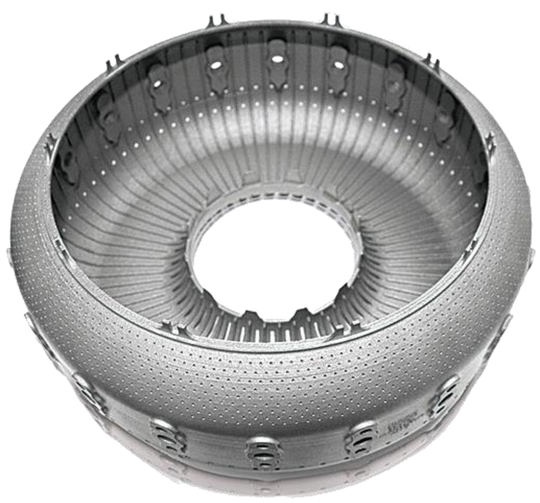
6 new alloys

that have been experimentally verified and patented

Working with a protein activity database that was 0.01% complete the tool calculated

240,000,000

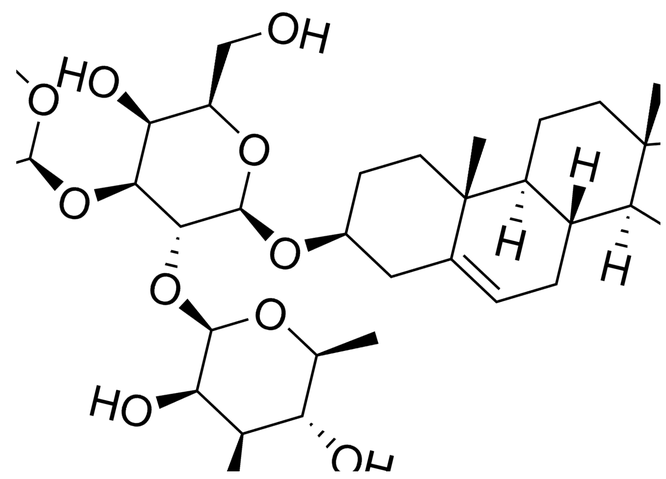
values to fill database to 30%, that have now been used to discover new drugs



Combining experimental and computational results to propose

battery cathodes

that have since been verified and commercialized



Following initial commercial success the tool is being commercialized by startup intellegens.ai The tool is being used not only in materials and drug design, but also other verticals including autonomous vehicles, infrastructure, and healthcare.