

Video-game technology may speed development of new drugs

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Parents may frown upon video games, but the technology used in the wildly popular games is quietly fostering a revolution in speeding the development of new products and potentially life-saving drugs. That's the topic of an article in the current issue of Chemical & Engineering News (C&EN).

C&EN Associate Editor Lauren K. Wolf notes that consumer demand for life-like avatars and interactive scenery has pushed computer firms to develop inexpensive yet sophisticated graphics hardware called graphics processing units, or GPUs.

The graphical units work in conjunction with traditional central processing units (CPUs) — the "brains" of desktop and laptop computers — and accelerate the rendering of three-dimensional images in games such as Prince of Persia and Guitar Hero. Unlike the traditional general-purpose CPUs, GPUs are customized for graphics operations and have many more transistors.

The article notes that manufacturers have developed GPUs that are having a big impact on chemistry, breezing through computations that once would have required all the processing power of a supercomputer. Chemists have embraced the technology to simulate the movement of molecules in the quest to develop new drugs and materials for solar cells and other products.

The big edge GPUs have over CPUs is in speed, reducing processing

times from years to months and months to weeks.

More information: "The GPU Revolution" This story is available at pubs.acs.org/cen/science/88/8844sci1.html

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