



FOR IMMEDIATE RELEASE

APPFIVE and NANOMEGAS Announce TOPSPIN, a Framework for Imaging and Analytical TEM and STEM Experiments in Materials Research and Electronics

Tempe, AZ USA, May 2nd 2013 -- <u>Topspin</u> is the result of a strategic partnership combining innovative application development by <u>AppFive</u> and advanced tools for electron diffraction from <u>NanoMEGAS</u>.

Topspin allows scientists to get more and better nanoscale information with unprecedented ease-of-use.

Topspin uniquely combines beam scanning and precession electron diffraction with multi-signal data acquisition and proprietary advanced analysis algorithms. Topspin experiments enable researchers to routinely perform advanced analytical experiments inside the Analytical (Scanning) Transmission Electron Microscope in ways previously not possible:

- Digital TEM & STEM Imaging
- Phase and Orientation Mapping (patented)
- Strain Mapping Analysis (patent pending)
- Nano Crystal Characterization with 3D precession diffraction tomography
- Enhanced EDX and EELS Spectroscopy (patent pending)
- Model-based EELS Quantification

"Topspin offers researchers and process developers in the Semiconductor Industry valuable solutions including high precision nanoscale strain mapping in strain engineered devices, texture analysis, and/or grain boundary visualization and statistical analysis in metal layers such as copper interconnects," said Bruno Janssens, Business Development Manager and Co-founder of AppFive. "

"Researchers around the world can now solve nanocrystal structures via the AppFive-developed Topspin Experiment Framework, combining advanced precession electron diffraction data acquisition strategies with advanced analysis solutions developed continuously in collaboration with strategic partners from the global scientific community," commented Dr. Stavros Nicolopoulos, Director of NanoMEGAS.





"Much smaller crystals can be analyzed with Topspin in the transmission electron microscope versus what is possible with modern X-ray Diffraction alternatives like single crystal XRD or synchrotron," added Dr. Nicolopoulos.

Topspin experiments are built on a novel applications development framework that enables AppFive to rapidly prototype new experiments proposed by the scientific community.

New Topspin experiments are currently being developed by AppFive and NanoMEGAS in collaboration with pioneers and innovators across the global scientific community.

AppFive and select distribution partners will commercialize Topspin in North, Central and South America. NanoMEGAS and select distribution partners will commercialize Topspin in Europe, Japan, Asia and rest of the world.

For more information about Topspin or to propose a scientific collaboration please visit : www.appfive.com

About AppFive

AppFive LLC is a Tempe, AZ USA based partner for innovation and tool development in microscopy. AppFive specializes in developing software framework technology and ultra-fast, domain specific application development. AppFive offers technology or application development services to OEMs in the Microscopy Industry.

About NanoMEGAS

NanoMEGAS SIrp, based in Brussels Belgium was created in 2004 by a Team of scientist and experts in the field of electron crystallography and catalysis. NanoMEGAS specializes in developing innovative solutions based on electron crystallography in TEM and is an industrial partner of the European ESTEEM-2 project (European Network for Electron Microscopy www.esteem2.eu). NanoMEGAS has been an AppFive strategic partners since 2008.

Media Contact

Bruno Janssens, AppFive LLC +1 (480) 389 6816 <u>bruno@appfive.com</u>

 $Website: \underline{www.app five.com}\\$

###