



## Johnson Matthey obtains license for the GEMX™ advanced battery material platform from CAMX Power

21st November 2018

Wednesday, November 21, 2018- Johnson Matthey (JM) and CAMX Power LLC (CAMX) announce that JM has obtained a license under the intellectual property of CAMX relating to the GEMX™ platform of nickel based high energy high power cathode materials for use in lithium-ion batteries especially for electric vehicles (EVs).

The GEMX platform is based on a fundamental invention of CAMX for which broad patents have been granted in the US, EU, Japan and China. The invention creates a broad class of cathode materials, overarching the high nickel material classes NMC, NCA and LNO, the chemistries currently used, and expected to be used in the next ten years or more, in lithium-ion batteries for EVs. The GEMX invention, through molecular engineering, places cobalt at the critical places of the cathode particles resulting in the use of less cobalt, yet with greater stability, higher performance and lower cost for all classes of high nickel materials.

“We are pleased to have obtained this further license from CAMX to support JM’s development of ultra high energy density automotive battery cathode materials” commented Alan Nelson, Sector Chief Executive and CTO at JM. “This license improves and extends our intellectual property protection and supports the commercialisation plans for our market leading **eLNO™** technology”.

“Adding the GEMX platform also gives us a broader chemistry landscape to which we can apply JM’s expertise in materials design, development, scale up and manufacturing. This is how JM provides our customers, and ultimately consumers, with battery materials that have the performance characteristics required to drive an electric vehicle revolution and enable the journey to pollution-free roads.

“In May 2016, Johnson Matthey purchased a license for the CAM-7 platform of CAMX. Using its own processing technologies and other know how Johnson Matthey successfully developed **eLNO** and is currently commercialising its technology. With the GEMX license JM can further enhance **eLNO** as well as take an advanced position in other material classes such as NCA and NMC” said Dr. Kenan Sahin, president and founder of CAMX. He continued, “Also with the GEMX license which extends CAM-7, JM will now have patent protection beyond 2030 in the key jurisdictions in the world and especially in the biggest market, China.” Dr. Sahin expressed his enthusiasm for the deepening relationship with JM remarking how rapidly and successfully JM developed and began commercialising **eLNO**, concluding “Instead of attempting production ourselves, by working with eminent and established companies like JM we as CAMX can see our inventions rapidly and more broadly come to market for the benefit of society especially in the environmentally beneficial connected and self-aware EVs poised to dominate transportation and become a multi-trillion dollar industry in itself.”

## About Johnson Matthey

Johnson Matthey is a global leader in science that enables a cleaner and healthier world. With over 200 years of sustained commitment to innovation and technological breakthroughs, we improve the function, performance and safety of our customers' products. Our science has a global impact in areas such as low emission transport, pharmaceuticals, chemical processing and making the most efficient use of the planet's natural resources. Today more than 14,000 Johnson Matthey professionals collaborate with our network of customers and partners to make a real difference to the world around us.

For more information, please visit: [www.matthey.com](http://www.matthey.com)

**eLNO** is a trademark of the Johnson Matthey group of companies

## About CAMX Power

CAMX Power LLC is one of the largest independent lithium-ion battery materials and design entities in the U.S. headquartered in Lexington, Massachusetts near Boston.

Its business model and strategy is to mature early stage technologies to be de-risked, IP-protected and scaled-up or scale up ready; then license them, with deep technology transfer, to large manufacturing partners for them to extend, make and sell, achieving far greater and far quicker impact for the betterment of society and environment.

CAMX Power also offers structured services to enable others to enter the emobility™ and eportability™ energy storage market, and for those already in the market, to cost-effectively expand their sales and to develop and acquire innovative solutions. The company maintains a lithium-ion battery material synthesis facility, a development-purposed cathode production pilot plant, and design-purposed advanced cell making facilities.

For more information, please visit: [www.camxpower.com](http://www.camxpower.com)

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