**PRESS RELEASE**

**Chinese scientist wins the European Inventor Award 2023 with a safer lithium-ion battery**

* **Kai Wu and his team are winners in the ‘Non-EPO Countries’ category of the European Inventor Award 2023**
* **The European Patent Office (EPO) honours the Chinese inventor for reducing the risk of battery explosion and fire in electric vehicles**
* **Wu and his team are among the pioneers in the research and development of lithium-ion batteries**

**Munich, 4 July 2023 –** The European Patent Office (EPO) announced today the Chinese scientist Kai Wu and his team are winners in the ‘Non-EPO Countries’ category of the European Inventor Award 2023. Selected from over 600 candidates, Wu and his team developed a **Li-ion battery with a top cover that acts as a barrier** to mitigate battery safety risks. The invention helps ensure the safety of vehicles equipped with lithium-ion (Li-ion) batteries containing a flammable electrolyte.

"*It is a great honour to win such a prestigious award, which will shine a path forward to further innovation efforts for me and CATL. What is more, electric vehicles powered by our advanced and safe batteries are enabling more people to embrace a sustainable lifestyle, contributing to the global energy transition. I hope that young inventors around the world adhere to the philosophy of learning more, doing more and asking more, to develop more innovations for the benefit of mankind,*” says Kai Wu.

Li-ion batteries are more sustainable with their lighter weight, faster charging capacity, and lower heat generation, **ultimately providing cleaner energy. However, overcharging Li-ion batteries has been an issue for decades in the car industry. Yet Wu and his team were able to deliver their solution to a leading car maker, in just two and a half years.**

**Eliminating the risk of battery overcharging**

As explained by Wu, *“all markets that are conducive to the reduction of carbon emissions and demand for smart development will benefit from the development of lithium-ion battery technology. In the energy storage industry, lithium-ion batteries have a broader application scenario and development space*.”

To ensure the safety of high-performance NCM cells required for long driving range, Kai Wu and his team systematically revealed the pattern from gas generation, heat generation to battery failure, and invented the safety short circuit device (SSD), a protection device integrated into the top cover of the cell. The invention would stop battery charging when it is triggered by gas pressure inside the cell, which results from gas generation due to overcharging, thus eliminating the risk of battery failure caused by overcharging.

**All the winners of the 2023 edition of the European Inventor Award were announced at a hybrid ceremony today** in Valencia (Spain). You can stream the ceremony on [this page](https://inventoraward.epo.org?mtm_campaign=EIA2023&mtm_keyword=EIA-pressrelease&mtm_medium=press).

Find more information about the invention’s impact, the technology and the inventors’ stories on [this page](https://new.epo.org/en/news-events/european-inventor-award/meet-the-finalists/kai-wu-and-team?mtm_campaign=EIA2023&mtm_keyword=EIA-pressrelease&mtm_medium=press&mtm_group=press).

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**About the inventor**

Kai Wu's career started in 1992 as a lecturer at Wuhan University of Technology, and he later became a leader in metal technology and energy companies in Dongguan, China. By 2012, he started his career at CATL as Chief Scientist of the company.

The journey to more safe and sustainable batteries began in 1999 when Wu started working on Li-ion batteries with Robin Zeng, founder and Chairman of CATL, making them one of the pioneering teams in batteries for electric vehicles.

**About the European Inventor Award**

The European Inventor Award is one of Europe's most prestigious innovation prizes. Launched by the EPO in 2006, the award honours individuals and teams, who have come up with solutions to some of the biggest challenges of our time. The finalists and winners are selected by an independent jury comprising former Award finalists. Together, they examine the proposals for their contribution towards technical progress, social and sustainable development, and economic prosperity. All inventors must have been granted a European patent for their invention. Read more [here](https://new.epo.org/en/news-events/european-inventor-award?mtm_campaign=EIA2023&mtm_keyword=EIA-pressrelease&mtm_medium=press) on the various categories, prizes, selection criteria and livestream ceremony to be held on 4 July 2023.

**About the EPO**

With 6 300 staff members, the [European Patent Office (EPO)](https://www.epo.org/?mtm_campaign=EIA2023&mtm_keyword=EIA-pressrelease&mtm_medium=press&mtm_group=press) is one of the largest public service institutions in Europe. Headquartered in Munich with offices in Berlin, Brussels, The Hague and Vienna, the EPO was founded with the aim of strengthening co-operation on patents in Europe. Through the EPO's centralised patent granting procedure, inventors are able to obtain high-quality patent protection in up to 44 countries, covering a market of some 700 million people. The EPO is also the world's leading authority in patent information and patent searching.