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Solid-state battery technology Chinese patent

Will China become a juggernaut of solid-state batteries?

China is looking to establish itself as a leader in solid-state batteriesby creating a massive consortium of major battery manufacturers, researchers, and government officials. China already leads the battery industry in this regard.

Are sulfide-based all-solid-state batteries coming to China?

At a conference held by the China Automotive Battery Innovation Alliance late last week, Ouyang Minggao, a renowned battery expert and an academician with the Chinese Academy of Sciences, said that in China, the closest technical route to industrialization is the sulfide-based all-solid-state batteries.

Could China's all-solid-state batteries revolutionize the EV market?

In a move that could revolutionize the EV market, China's leading auto and battery manufacturers are forming an alliance to commercialize all solid-state batteries. According to Nikkei Asia, the China All-Solid-State Battery Collaborative Innovation Platform, or CASIP, was formed last month.

Will solid-state EV batteries make China a powerhouse?

Chen Qingtai,head of China EV100,argued that solid-state EV batteries can shift the industry's power balance. Working together will ensure China becomes an "automotive powerhouse."Although many others,including Toyota,have promised to bring solid-state EV battery tech to market for years,there's still little show.

How many patents does Toyota have for solid-state batteries?

Toyota reportedly has over 1,300 patents for solid-state batteries. Nikkei Asia reports that the Japanese company has partnered with oil refiner Idemitsu Kosan and aims to commercialize solid-state batteries in 2027 and 2028, with plans for full-scale mass production.

Should China commercialize all-solid-state batteries before 2035?

Ouyangsuggested that instead of producing only samples, China must strive to commercialize all-solid-state batteries with an energy density of more than 400 Wh/kg and 800 Wh/L before 2035.

South Korea's Samsung SDI has set up a pilot line for solid-state batteries and is also eyeing mass-production in 2027. China's CATL is similarly aiming to commercialise its ...

Volkswagen Group stated in 2021 that it expected solid state batteries to be in use by 2025, while Hyundai Motor and BMW have announced plans to mass produce solid state batteries by 2030. Toyota, which holds the ...

Chinese automakers and battery giants, including BYD, CATL, and NIO, are teaming up to form an "all-star"

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lineup aimed at developing all solid-state EV batteries.

CATL goes all in for 500 Wh/kg solid-state EV battery mass production. CATL's prototype solid-state batteries have an impressive energy density of 500 Wh/kg, a 40 percent ...

The China All-Solid-State Battery Collaborative Innovation Platform (CASIP) consortium founded in January aims to develop and produce competitive solid-state batteries ...

Chinese tech giant Huawei has filed a new patent for a sulfide-based solid electrolyte that aims to upgrade lithium-ion batteries by replacing unsustainable liquid ...

Preview of the "Solid-state / Semi-solid Li-ion Battery Innovation & Patent Review", including sections on commercially relevant patents, benchmarking and identification ...

Japan"s Toyota, which is among the earliest to commit to the research and development of solid state batteries, has been granted 1,790 patents in the technology, ...

Accelerated efforts of both the Chinese government and the private sector are expected to lead to installation of all-solid-state batteries in electric vehicles by 2027 ...

1 ??· Filings in the China patent office led by far, followed by the USA. The patent offices for other countries, such as the United Kingdom, Republic of Korea, and Japan, show much lower ...

Chinese automaker GAC Group said on April 12 that it had broken through several obstacles regarding the durability and safety of "all-solid-state" batteries, and expected its future rollout of the technology to offer ...

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Since the second quarter of this year, the development of all-solid-state batteries has accelerated in China. A batch of automakers and battery firms have announced solid ...

The consortium, dubbed the China All-Solid-State Battery Collaborative Innovation Platform (CASIP), includes CATL, BYD's battery arm FinDreams Battery, CALB, ...

The paper adopts the technology of Natural Language Processing (NLP) to analyze patent documents and reveal the advances and opportunities for developing solid ...

Huawei"s new patent on sulfide solid-state batteries addresses liquid battery degradation, promising high energy density, safety, long life, and stability for EVs and storage.

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As of 2019 Toyota held the most SSB-related patents. [22] ... Qing Tao started the first Chinese production line of solid-state batteries in 2018 to supply SSBs for "special equipment and high ...

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