# Battery Daily News from Entire Web

# - April 9, 2024

# **Top Stories**

### **Business Expansion**

China, South Korea worry local battery makers' overseas expansion will impact global dominance (DIGITIMES Asia)

Chinese and South Korean battery manufacturers dominate LFP and ternary batteries for EVs and energy storage systems (ESS). However, as companies expand into foreign markets, the Chinese and South Korean governments are concerned that the overseas scale-up will pull domestic companies off the leaderboard.

#### **Business Partnership**

Altilium and Talga Group forge green battery anode production partnership (Innovation News Network)

This partnership aims to revolutionise the recycling process of electric vehicle (EV) batteries by recovering graphite for reuse in new battery anodes. By embracing a circular economy model, the partnership seeks to reduce the UK's dependence on imported raw materials while promoting sustainability within the EV battery industry.

# EGM seals charter deal with Equinor for 4 wind-powered battery dual-fuel methanol tankers (Offshore Energy)

The charter contract was signed after EGM won the tender process with both technical and financial criteria initiated in December 2023. This transaction, supported by Bermuda-based ship owner and charterer SFL Corporation, is said to represent a significant advancement in green shipping and underscores a shared vision for a cleaner, more sustainable maritime industry.

#### ProLogium opens solid state battery plant in Taiwan (GlobalData)

ProLogium said the plant would be able to supply two gigawatt-hours (GWh) of ceramic solid state batteries per year when it reaches full capacity, enough for some 26,000 battery electric vehicles (BEVs). The company said it expects the first BEVs fitted with these batteries to go on sale later this year.

# <u>EU-India collaborate to advance EV battery recycling technologies through trade, technology council</u> (Telangana Today)

The European Union (EU) and India have joined forces to promote collaboration among start-ups working on Battery Recycling Technologies for Electric Vehicles (EVs) through a matchmaking event. According to a press release, launched under the India-EU Trade and Technology Council (TTC), this initiative aims to enhance cooperation between European

Nuveen and Exus to develop 800MW Italian battery projects portfolio (Smart Energy)

The deal will see Nuveen Infrastructure and Exus commence a series of standalone battery energy storage system (BESS) projects across the Puglia region of Italy. These will constitute four projects each for both Nuveen Infrastructure and Exus, each with a total capacity of 100MW.

#### NXP teams up with Ferrari for better batteries (BITS & CHIPS)

NXP is a partner in a new battery research outfit started by Ferrari and run by the University of Bologna. The E-Cell Lab focuses on preparing and testing new materials for lithium-ion battery cells, ultimately aiming to boost the performance of the batteries assembled at the carmaker's plant in Maranello.

### Ascend selects Poland for European recycling site (Recycling Today)

Massachusetts-based Ascend Elements has announced the formation of AE Elemental, a joint venture (JV) with Elemental Strategic Metals that will be based in Elemental's home city of Zawiercie, Poland. Through the JV, the companies will jointly own (in a 50/50 arrangement) and operate a newly constructed electric vehicle (EV) battery recycling facility in Zawiercie.

#### **Production/Operations**

#### 2nd life battery project Battery2Life takes off in Europe (electrive.com)

According to the initiators, the implementation of advanced battery management systems and optimised system designs should enable a more reliable reconfiguration of used batteries. This also has the potential to drive innovation in the European battery industry.

# <u>Lithium metal deficit could limit next generation battery development this year Benchmark Source</u> (Batteries News)

Lithium metal deficit could limit next generation battery development this year Benchmark Source. Global capacity for lithium metal production is insufficient to support the early commercial growth of the lithium metal battery industry, according to Benchmark's Solid-State and Lithium Metal Forecast.

### Local company producing batteries to support Thailand's EV ambitions (Nation Thailand)

Amita Technology, Thailand and ASEAN's first lithium-Ion battery gigafactory, has pledged to complete the country's electric vehicle (EV) ecosystem by developing its own battery manufacturing from upstream to downstream, says Energy Absolute, Amita Technology's parent company.

# There's a gaping hole in North America's battery dreams and Lithium Universe plans to fill it (The Australian)

Forget lithium's short-term malaise, Lithium Universe is looking to the avalanche of demand to come by playing a key role in enhancing North America's battery supply chain. In a major strategic update, the company led by lithium industry legend Iggy Tan and the team behind early moving EV supplier Galaxy Resources

#### Monsson commissions largest energy battery storage capacity in Romania (Romania Insider)

Monsson said on April 9 that it connected to the national grid the largest energy battery storage capacity in Romania. The facility is part of the first hybrid photovoltaic-wind-battery project installed within an operational wind farm of 50 MW.

### **Vendor/ Supplier Related**

**Embracing Circularity in the Lithium-Ion Battery Supply Chain (SDCEXECUTIVE)** 

The transition from a linear to a circular economy represents a pivotal shift in our approach to production, consumption, and waste management, crucial for the lithium-ion battery supply chain's sustainability.

### **Research & Development**

# Scientists Claim World Fastest Charging Indigenous Battery Double The Backup Too Amar Ujala Hindi News Live (PrTechNews)

Two scientists of Harish Chandra Research Institute (HRI) in collaboration with American colleagues have developed the world's fastest charging battery. This lithium ion battery will take only five to seven minutes to charge.

### Patent (Powered by **Emerging Tech Patents**)

### **Intellectual Property**

Korean Intellectual Property Office Receives Semiconductor Energy Lab's Patent Application for Semiconductor Device, Power Storage Device, Battery Management Circuit, Electronic Component, Vehicle, and Electronic Device (Korea Patent News)

Seoul, April 9 -- Korean Intellectual Property Office has received Semiconductor Energy Lab's patent application for semiconductor device, power storage device, battery management circuit, electronic component, vehicle, and electronic device. Ikeda Takayuki, Takahashi Kei, Fukai Shuji and Yamazaki Shunpei developed the invention.

# Korean Intellectual Property Office Receives SK On's Patent Application for Battery Pack and Manufacturing Method Thereof (Korea Patent News)

Seoul, April 9 -- Korean Intellectual Property Office has received SK On's patent application for battery pack and manufacturing method thereof. Park Chan Ho, Kwon Dae Won and Jang Jin A developed the invention.

# Korean Intellectual Property Office Releases NS Co Ltd's Patent Application for Electrode Assembly for Secondary Battery and Method for Fabricating the Same (Korea Patent News)

Seoul, April 9 -- Korean Intellectual Property Office has released NS Co Ltd's patent application for electrode assembly for secondary battery and method for fabricating the same. This invention was developed by Lee Han Woong, Jun Sung Jin and Lee Se Yong.

# Korean Intellectual Property Office Receives LG Energy Solution's Patent Application for Battery Pack (Korea Patent News)

Seoul, April 9 -- Korean Intellectual Property Office has received LG Energy Solution's patent application for battery pack. Hyongseok Yoo, Donghyun Kim, Soeun Rhim and Hyoungsuk Lee developed the invention.

# Korean Intellectual Property Office Releases Samsung SDI's Patent Application for Battery (Korea Patent News)

Seoul, April 9 -- Korean Intellectual Property Office has released Samsung SDI's patent application for battery. This invention was developed by Park Sang Hun.

# World Intellectual Property Organization Releases Sumitomo Chemical Co and Univ Kyoto's Patent Application for Polymer, Method for Producing Polymer, Electrolyte Composition, and Battery (WIPO Patent News)

Geneva, April 9 -- World Intellectual Property Organization has released Sumitomo Chemical Co and Univ Kyoto's patent application for polymer, method for producing polymer, electrolyte composition, and battery. This invention was developed by Nakajima Hideto, Suwa Koki, Ouchi Makoto and Yamada Izumi.

# Korean Intellectual Property Office Receives SK On's Patent Application for Manufacturing Method for the Secondary Battery (Korea Patent News)

Seoul, April 9 -- Korean Intellectual Property Office has received SK On's patent application for manufacturing method for the secondary battery. Kim Sung Yeop, Kim Jin Go, Na Ji Won and Cho Eun Soo developed the invention.

World Intellectual Property Organization Receives LG Energy Solution's Patent Application for Shim for Die Coater and Die Coater for Coating Active Material on Current Collector for Secondary Battery (WIPO Patent News)

Geneva, April 9 -- World Intellectual Property Organization has received LG Energy Solution's patent application for shim for die coater and die coater for coating active material on current collector for secondary battery. Park Joon Sun, Kim Man Hyeong, Choi Min Hyuck and Kim Guk Tae developed the invention.

World Intellectual Property Organization Releases LG Energy Solution's Patent Application for Battery Module, and Battery Pack and Energy Storage Device Comprising Same (WIPO Patent News)

Geneva, April 9 -- World Intellectual Property Organization has released LG Energy Solution's patent application for battery module, and battery pack and energy storage device comprising same. This invention was developed by Bae Kyung-Hyun, Kim Hyeon-Kyu, Shin Jong-Chan, Lee Bum-Hyun and Choi Byung-Hyuk.

World Intellectual Property Organization Receives Aqua Cell Energy's Patent Application for Bipolar Electrodialysis Based Flow Battery System (WIPO Patent News)

Geneva, April 9 -- World Intellectual Property Organization has received Aqua Cell Energy's patent application for bipolar electrodialysis based flow battery system. Cleland Keith developed the invention.

### **News Stories**

#### **Business Expansion**

### Metastable Materials plans to expand high-yield battery recycling capacity (Business Standard)

Metastable Materials, a Bengaluru-based startup focused on lithium-ion battery recycling, is looking to ramp up operations and establish a new factory in the coming two years. The company uses a chemical-free technology to extract valuable materials from used batteries, including copper, cobalt, nickel, and lithium.

# **Business Partnership**

#### Indonesia's Scorpene Submarine Deal With France, Explained (The Diplomat)

France's Naval Group recently announced that Indonesia had signed a contract to purchase two Scorpene submarines, which a lithium-ion battery system will power in a deal valued at around \$2 billion. The most interesting part to me is that both submarines will be built in Indonesia by state-owned shipbuilder PT PAL at its facility in Surabaya.

# <u>Digital Realty and Schneider Electric Partner to Undertake Data Center Circular Economy</u> <u>Initiative</u> (WebWire)

Schneider Electric, the leader in digital transformation of energy management and automation, has partnered with Digital Realty (NYSE: DLR), the largest global provider of cloud and carrier-neutral data center, colocation and interconnection solutions, to deliver an innovative circular economy initiative at its Paris 5 (PAR5) data center.

Innovative Method Unveiled for Purifying Battery Materials (Ytech News)

A recent breakthrough from researchers at the University of Michigan in collaboration with Samsung's Advanced Materials Lab promises to enhance battery manufacturing by employing a new technique for creating materials with minimal impurities.

# Revolutionizing Electric Mobility: FAW-FinDreams Launches Mass Production of Swappable Batteries (YTECH)

FAW-FinDreams, the burgeoning joint venture between China's FAW and BYD's FinDreams, has proudly commenced the mass production phase for its pioneering battery swap-enabled power pack: the PA75 battery project. This milestone attests to FAW's commitment to advancing the electric vehicle landscape by integrating such state-of-theart technology into its Hongqi brand's HME battery platform.

# Exide, Amara Raja stocks rise up to 20% in 3 days on positive outlook for battery sector (money control)

Battery manufacturers like Exide Industries and Amara Raja Batteries have extended gains on April 9, rallying up to 20 percent in the last three sessions on the back of a combination of partnerships, bullish brokerage calls and robust growth prospects.

# Studies/Surveys

### Lithium-ion Battery Electrode Properties of Hydrogen Boride (presspubs.com)

Recently, hydrogen boride (HB) with a pseudo-two-dimensional sheet structure was successfully synthesized, and it is theoretically predicted to have high potential as a negative electrode material for alkali metal ion batteries, making it a promising new candidate.

#### Zillertalbahn hydrogen plan dropped in favour of battery traction (Railway Gazette)

Plans to replace diesel traction on the narrow gauge Zillertalbahn with hydrogen have been dropped in favour of battery operation. Decarbonisation is planned as part of the railway's medium-term investment programme for 2025-30, and could save an estimated 900 000 litres of diesel per year.

#### Unlocking the Potential of Africa's Electric Vehicle Industry (TechTrendsKE)

BasiGo, at the forefront of the electric mobility revolution in Africa, is poised to transform public transport across East Africa by rolling out 1,000 electric buses over the next three years. With a population of 4.4 million people, Tumi, an ebus company, estimated that 46% relied on public transport to get around in 2022.

### UK: Battery storage could help reduce wind curtailment costs by 80% (Energy Storage News)

Battery energy storage system (BESS) technology could reduce the cost of curtailing wind energy production in the UK by up to 80%, after over US\$1 billion was spent last year, a developer has said. According to analysis from BESS developer and operator Field, firing up gas power plants in England and Wales and switching off wind farms in Scotland cost billpayers  $\hat{A}$ £920 million (US\$1.17 billion) across 2023.

### BESSY II: How pulsed charging enhances the service time of batteries (Tech Xplore)

An improved charging protocol might help lithium-ion batteries to last much longer. Charging with a high-frequency pulsed current reduces aging effects, an international team demonstrated. The study was led by Philipp Adelhelm (HZB and Humboldt University) in collaboration with teams from the Technical University of Berlin and Aalborg University in Denmark.

#### First Mireo Plus B battery-electric multiple-units enter service (Railway Gazette)

An initial four Siemens Mobility Mireo Plus B battery-electric multiple-units entered passenger service on Netz 8 Ortenau routes in Baden-Württemberg on April 8. We are writing a new chapter in railway history, said the Land's transport minister Winfried Hermann.

# MAN expands zero-emission portfolio small truck series with hydrogen combustion planned for 2025, vehicle complements battery-electric portfolio (Batteries News)

MAN expands zero-emission portfolio small truck series with hydrogen combustion planned for 2025, vehicle complements battery-electric portfolio. Commercial vehicle manufacturer MAN Truck & Bus will be the first European truck producer to launch a small series with a hydrogen combustion engine.

#### Waratah Super Battery gets grid green light from AEMO (pv-magazine)

The Australian Energy Market Operator (AEMO) has granted generator performance standard (GPS) approval for the 850 MW / 1,680 MWh Waratah Super Battery being developed by Akaysha Energy at the site of a shuttered coal-fired power station at Lake Munmorah on the New South Wales (NSW) Central Coast.

#### The Future of Batteries: Solid-State Technology Shaping Tomorrow (Ytech News)

Emerging solid-state battery technology represents a transformative leap in the realm of energy storage, with the potential to drastically improve electronic devices in terms of charging speed, safety, energy density, and environmental impact.

#### The Eclipse Was a 3-Hour Boon for Gas, Batteries, and Hydro (Heatmap News)

Early April is typically a kind of goldilocks moment for solar power. Days are getting longer but the weather is still mild, meaning that higher solar power generation isn't entirely eaten up by increased demand due to air conditioning.

#### Unravelling the Giants Tesla's Dynamic Dance with Battery Supremacy (Ytech News)

In a world voraciously consuming the narrative of sustainable mobility, one name sparks vivid imagery of a greener, electrifying future: Tesla. The relentless titan of electric vehicles (EVs) stands not alone but upon a pantheon of powerful allies, those who forge the very heart of electrification the battery suppliers.

# Clarios to Supply High-Performance AGM Battery to Major OEM (aftermarketNews)

Clarios, producer of one in three of the world's low-voltage car batteries, said it secured a supplier contract with a major original equipment manufacturer for its new high-performance recharge absorbent glass mat (AGM) battery a 12-volt battery with increased charge acceptance compared to traditional AGM batteries to help reduce fuel consumption and to help reduce CO2 emissions.

#### Record-breaking year for battery installations across Australia in 2023 (Energy Central)

A record number of batteries were installed across Australia in 2023, in homes, businesses and at grid-scale, according to a new report from solar and storage market analyst SunWiz. According to the 2024 Annual SunWiz Australian Battery Market Report, a record 57,000 battery systems, or energy storage systems, were installed in Australian homes in 2023.

# **Electric Dreams: The Solid-State Revolution Charging Up the Battery World (Ytech News)**

Imagine a future where electric vehicles charge in minutes and travel the distance of a cross-country road trip on a single charge, where your smartphone's power darts through days of use without begging for a socket, and renewable energy storage systems catch every ray of sunshine and breath of wind, keeping them ready for a rainy spell.

# <u>Creating Virtual Simulations to Replicate how Batteries Function - About: Energy CEO, Gavin White</u> (Auto Futures)

Energy is a UK battery data and software company started in 2022 by Kieran O'Regan and Gavin White. It uses high-quality data to accelerate its customers strategic decision-making across the battery supply chain, from cell selection to end-of-life analysis.

#### LGES surpasses BYD in global EV battery market (kallanish)

South Korean battery giant LG Energy Solution has overtaken Chinese competitor BYD in the global EV battery usage rank during January-February, according to South Korean institute SNE Research. Data released on 8 April show usage of LGES batteries on EVs reached 12.7 gigawatt-hours, an on-year increase of 24.8%.

### Big batteries overshadow residential rollout in Australia (pv-magazine)

Solar and storage analyst Sunwiz said 2023 was the year of the big battery, with a record number of large-scale battery energy storage systems featuring almost 1 GW/1.5 GWh of combined capacity energized across Australia.

#### Rimac to Deliver Battery Technology to Power BMW's Future Electric Fleet (YTECH)

In a significant step for the electric vehicle industry, Croatian EV technology company Rimac has been selected to provide the battery systems for the upcoming range of electric cars by BMW. This deal positions Rimac's engineering division at the forefront of automotive innovation, as they gear up to supply the German auto giant with cutting-edge battery solutions.

#### GM's EV Battery Tech to Power Lunar Rover in NASA's Artemis Missions (YTECH)

In a significant collaboration blending automotive advancements with space exploration, General Motors (GM) is poised to play a pivotal role in the next phase of lunar exploration. As NASA ambitiously forges ahead with the Artemis program, aimed at returning humans to the Moon and eventually marching toward Mars, GM is set to contribute its innovative electric vehicle (EV) battery technology

#### Proactive Public Safety Education Amid Lithium-Ion Battery Industry Boom (Ytech News)

As the lithium-ion battery market swiftly expands, the importance of public education on safety, ethical sourcing, and recycling becomes crucial. The market is projected to burgeon with the rise of electric vehicles and energy storage devices, but it also brings challenges such as potential safety hazards and environmental concerns.

### Breakthrough in Lithium-Ion Battery Safety Through a Novel Coating Technology (Ytech News)

In a remarkable advance for lithium-ion battery safety, Queensland-based Alpha HPA reports developing a high-purity aluminium nitrate that could drastically reduce the occurrences of battery-induced fires.

#### The Surge of Lithium-Ion Batteries: Navigating Growth and Sustainability (Ytech News)

The lithium-ion battery industry is witnessing exponential growth as it becomes the linchpin in powering modern devices and electric vehicles. However, this surge brings critical challenges, including the need for improved safety protocols and eco-friendly practices.

#### Booming Lithium-Ion Battery Market: Challenges and Opportunities (Ytech News)

As the lithium-ion battery industry expands, it brings both risks and rewards. Safety measures are being emphasized to manage the potential hazards associated with these powerful energy sources. The world is on the verge of an energy revolution, largely driven by the increasing dominance of lithium-ion batteries in a wide range of devices, from smartphones to electric cars.

### **Ensuring a Sustainable Future for Lithium-Ion Batteries** (Ytech News)

The lithium-ion battery industry is soaring, fueled by its critical role in powering a myriad of devices and vehicles. While the growth spells a brighter future for energy storage and electric vehicles, it also brings forth significant challenges.

#### Key Challenges and Opportunities in Global Lithium Metal Market (Carbon Credits)

The global demand for lithium metal batteries is surging, yet production falls short of meeting the need, hindering industry growth. According to Benchmark's Solid-State and Lithium Metal Forecast, the sector faces challenges in sourcing adequate lithium metal for battery production, despite its high capacity potential.

#### Micro photovoltaic drone achieves 3.5 min autonomy (pv magazine)

The photovoltaic micro aerial vehicle has a footprint of  $0.15 \,\mathrm{m} \times 0.15 \,\mathrm{m}$  and a weight of only  $0.071 \,\mathrm{kg}$ . According to its creators, it is the smallest solar-rechargeable multi-rotor ever developed to date. It uses a 22.6%-efficient solar module technology from US-based Sunpower and a  $0.3 \,\mathrm{Ah}$  storage system based on lithium polymer batteries.

### Non-stop drone operations enabled by overhead power line recharging (MSN)

Researchers have proposed an autonomous self-recharging drone system that can operate continuously over extended periods. The system works by drawing energy from overhead transmission cables. The drone can find power lines and get close to them for a landing thanks to its powerful onboard perception and navigation system.

### **Production/Operations**

### Self-propelled battery wagon deployed on mining railway (Railway Gazette)

Battery and automation technology company Intramotev has announced the successful deployment of its ReVolt self-propelled battery-electric vehicle as part of a standard freight train.

# <u>Enel Batteries that are increasingly efficient and reliable thanks to predictive diagnostics</u> (Batteries News)

Enel Batteries that are increasingly efficient and reliable thanks to predictive diagnostics. To improve the efficiency and safety of batteries, it's important to monitor their performance in real time, which is why EGP has adopted innovative predictive diagnostics software, already in use in five of our plants.

# Allye Energy powers ahead with four senior recruits to support scale production of MAX battery energy storage system (KTLA)

Clean-tech start-up Allye Energy - the smart battery technology platform for distributed energy storage at the grid edge sometimes dubbed the Netflix of battery storage, has expanded its senior team, including some from Lunaz, in response to continued growth in demand for the MAX battery energy storage system

# Huge fire at Scots battery recycling plant as explosions heard and locals 'told to evacuate' (Yahoo)

Fire crews are battling a huge blaze in Kilwinning this morning. Terrified residents were told to evacuate their homes after the blaze started at the Fenix Battery Recycling plant in the Ayrshire town in the early hours. Some locals had to flee their homes while others were told to stay indoors and close their windows as the flames ripped through the factory.

# <u>Coniagas Battery Metals to Advance Graal Nickel-Copper Project in Quebec, CEO Says</u> (investing news)

We still have about 14 properties, including Graal. We spend most of our time and money on Graal because odds are there's something there Basa said. We might start drilling right away, and we might have some very high crazy numbers for copper-nickel. ... There's some cobalt values. The property's potential is massive.

# Reborn solar thermal and battery project seeks deal to plug in to transmission line to BHP mines (RenewEconomy)

Australian clean energy technology companies Vast Renewables and 1414 Degrees say they entered into negotiations to gain access to transmission lines to connect their planned big battery and solar thermal projects.

# <u>Thailand Steers Towards Electric Vehicle Mastery with Complete Battery Manufacture</u> (Ytech News)

Summary: Energy Absolute has embarked on a far-reaching initiative to produce lithium-ion batteries within Thailand, reinforcing the nation's aspirations to become a central figure in the electric vehicle (EV) industry.

#### Innovative Robotics Pave the Way for Enhanced Battery Material Production (Ytech News)

In an effort to streamline the creation of battery materials that are economically viable, less impure, and thus more market-ready, researchers from the University of Michigan in collaboration with Samsung's Advanced Materials Lab, have honed in on a manufacturing process that encorporates novel strategies.

# <u>Lydian Energy Debuts, Targeting Development of Groundbreaking Solar and Battery Storage</u> <u>Projects Throughout North America</u> (SOLARQUARTER)

Lydian Energy, a prominent independent power producer, has announced its launch. With robust financial support and extensive expertise from Excelsior Energy Capital, Lydian aims to pioneer renewable energy solutions on a large scale, fostering both economic growth and environmental sustainability across North America.

# Korean Battery Makers? World Battery Market Share Shrinks by 1.2% First 2 Months of 2024 (BusinessKorea)

The combined market share of the top three Korean battery makers is on a steady decline. SNE Research announced on April 8 that the total battery usage of electric vehicles registered in the world was about 92.4 GWh, up 27.0 percent year on year in January and February.

### Asian Giants Lead in EV and ESS Battery Production Amidst Global Expansion Concerns (YTECH)

As Chinese and South Korean companies forge ahead, leading the manufacture of batteries for electric vehicles (EVs) and energy storage systems (ESS), governments in these countries are keeping a watchful eye on the international expansion. The focus is on two types of batteries: Lithium Iron Phosphate (LFP) and ternary batteries.

### Lithium South Innovates for Higher-Value Lithium (TipRanks)

Lithium South Development Corporation has successfully completed advanced testing of new lithium production methods, potentially increasing the value of its Hombre Muerto North project in Argentina. The tests resulted in a superconcentrated lithium chloride brine with high lithium content and a bulk lithium carbonate product nearing battery grade quality.

#### Lithium Hydroxide Manufacturing Plant Report In Latest Study (WhaTech)

Lithium hydroxide manufacturing plant report covers various aspects, ranging from a broad market overview to intricate details like unit operations, raw material and utility requirements, infrastructure necessities, machinery requirements, manpower needs, packaging, and transportation requirements, and more.

# <u>Insufficiency in Lithium Metal Production May Stall Advancements in Battery Technology</u> (Ytech News)

With the evolution of battery technologies racing ahead, a new challenge surfaces: the production of lithium metal cannot meet the burgeoning demand of the lithium metal battery industry. This shortfall may impede the progress of high-capacity battery development, to the extent that projected demands for this year might not be met.

# <u>Prospect Resources adds new copper-cobalt project to its growing African portfolio</u> (The Australian)

Prospect Resources continues to grow its battery minerals presence in sub-Saharan Africa by executing two separate sale and purchase agreements to acquire the Mumbezhi copper-cobalt project. Mumbezhi is within the world-class Zambian copper belt in northwestern Zambia, spanning an area of around 356sq km and prospective for large tonnage, low to mid-grade copper-cobalt deposits.

#### Technical issues

#### Tesla Settles Autopilot Death Lawsuit Hours Before Trial Began (MSN)

If there's one driver assistance feature that winds up in the news more than any other, it's Tesla's Autopilot and Full Self-Driving. The polarizing partially-automated feature has struck the nerve of regulators and unwitting beta testers (or as they're more commonly called, other road users), especially as some crashes have ended up at the desk of federal agencies and in courts.

#### Fire crews tackle major blaze at recycling plant (BBC)

Fire crews are continuing to tackle a major blaze which broke out at a battery recycling plant in North Ayrshire on Monday night. Emergency teams were called to the Fenix site on Byrehill Road in Kilwinning just after 22:00.

#### HLOB Fire Dept. Warns Of Dangers Of Lithium Batteries (Muskoka Radio)

The Huntsville/Lake of Bays Fire Department is raising awareness on lithium-ion (Li-ion) battery risks linked to devices like smartphones, laptops, and power tools. The Fire Dept. says that residents should be vigilant to prevent fire incidents. Mishandling, such as dropping devices or exposing them to heat, can trigger thermal runaway, leading to fires or explosions.

#### Alpha targets lithium-ion battery safety with high-purity alumina (pv magazine)

Fires caused by lithium-ion batteries are expected to increase in the coming years as use of the energy storage solution continues to rise but Gladstone-based critical minerals company Alpha HPA said it has developed a high-purity aluminium nitrate that has the potential to deliver a safety breakthrough for the battery technology.

#### **New Products/Services**

# New electric truck from this startup can achieve 10-80% charge in 20 minutes, reach 120kmph top speed (IndiaToday.in)

Electric truck manufacturer Tresa Motors has unveiled the V0.2 model. The all-new Tresa V0.2 uses a 300kWh battery, which can be charged from 10% to 80% in 20 minutes. The electric truck's powerful 24,000Nm motor can propel it to a top speed of 120kmph.

# Potential Leap in Apple Watch Battery Life with New Display Technology (Ytech News)

A recent report sheds light on the possibility of the upcoming Apple Watch Series 10 featuring a significant improvement in battery life. Allegedly, Apple is considering the introduction of a new Low-Temperature Polycrystalline Oxide (LTPO) Thin Film Transistor (TFT) technology for its smartwatch displays.

# **EV firm Ultraviolette unveils industry-1st coverage up to 8 lakh kms for F77 e-bike** (SOCIAL NEWS XYZ)

Global EV company Ultraviolette Automotive on Tuesday announced an industry-leading battery and drivetrain warranty structure for its flagship electric motorcycle called F77 that offers coverage spanning up to 800,000 kms.

### Maruti eVX Launch Delayed Due To Battery & Software Challenges (MotorBeam.com)

The eagerly awaited launch of Maruti eVX electric SUV appears to be encountering a delay of a few months. The brand is grappling with various challenges related to battery supply and software, which have pushed back the start of production (SOP) by approximately five months.

#### GAC Aion's Hyper brand to unveil all-solid-state battery on Apr 12 (CNEVPOST)

A growing number of local electric vehicle (EV) makers are preparing to launch solid-state batteries, with GAC Aion's Hyper brand being the latest. Hyper will hold a launch event on Friday, April 12 to unveil its all-solid-state battery, it said today on Weibo.

#### bebob CUBE 1200/700 Block Battery (Newsshooter)

bebob has announced its new CUBE 1200/700 block battery, which is a successor to its previous Cube 1200 block battery offering. The CUBE has a maximum load of 700W, a capacity of 1140Wh and it can output various voltages (14.4V, 24V, 48V). It was primarily designed to power lights and high draw cameras on location.

# The 'Apple' of home batteries: Dutch-based Planetpod unveils first Al home battery (Silicon Canals)

Brothers Roel and Maurice van der Ende have revealed the first Dutch-design ultra smart home battery in the Netherlands, Planetpod. This compact home battery, built from recycled materials, efficiently stores solar energy and delivers it on demand.

#### BYD to Launch 2nd Generation Electric Car Battery With Better Performance (ProPakistani)

Chinese automakers BYD and its battery subsidiary, FinDreams, is gearing up to introduce the second generation of its revolutionary blade battery later this year, with a possible launch in August. The upcoming iteration of the blade battery is expected to feature significant upgrades, notably an enhanced energy density projected to reach 190 Wh/kg.

#### Invicta Xero is an exciting new lithium deep-cycle solution (whichcar)

The Invicta Xero is a ground-breaking 12V 120Ah lithium battery that sets a new standard for performance, durability and innovation for energy storage. This advanced lithium battery has been designed to meet the increasing demands of emerging applications and safety requirements in the 4x4 and recreational markets.

#### **Pricing**

### First community battery to cut power prices in Shell Cove (Illawarra Mercury)

A new community battery has been switched on to provide energy storage for 40 homes in Shell Cove.

#### GoPro Hero 12 bundle with battery grip is available at a record low Price (GizmoChina)

GoPro enthusiasts can currently save on a bundle featuring the Hero 12 action camera and several useful accessories. The bundle, which includes a battery grip, Media Mod, Light Mod, and Enduro battery, is on sale for \$499 at both Amazon and directly through GoPro.

# Battery price falls threaten second life model as Fenecon opens assembly plant in Germany (Energy Storage News)

A second life energy storage assembly plant has opened in Germany, amidst a rapid fall in battery prices which could threaten the economics of repurposing EV batteries into stationary units. A lot of people are dropping out of the second life energy storage space, a senior director at a second life energy storage company recently told Energy-Storage.news.

### Morning briefing: Lithium prices gain momentum from rising production scheduling (Mysteel)

Lithium: The demand for lithium ore has been unleashed with downstream smelters raising the production scheduling. But the spots supply was relatively tight, and the traders hiked the prices accordingly. It is expected that the lithium ore prices will maintain momentum in the near term.

### **Research & Development**

# Researchers use self-organized crack-free nanocellular graphene film to enhance sodium ion batteries (Graphene-Info.com)

Researchers from Tohoku University, Tianjin University of Technology, Pohang University of Science and Technology and Johns Hopkins University recently designed a nanocellular graphene (NCG) film through the self-organization of carbon atoms using liquid metal dealloying and employing a defect-free amorphous precursor.

### Better battery manufacturing: Robotic lab vets new reaction design strategy (Tech Xplore)

New chemistries for batteries, semiconductors and more could be easier to manufacture, thanks to a new approach to making chemically complex materials that researchers at the University of Michigan and Samsung's Advanced Materials Lab have demonstrated.

#### Gelion fabricates 395 Wh/kg lithium-sulfur 9.5 Ah pouch cell (Green Car Congress)

Gelion, a spin-out from the University of Sydney (earlier post), has achieved a high energy density milestone by fabricating a 395 Wh/kg lithium-sulfur 9.5 Ah pouch cell (commercial cell format). This result represents a c. 60% increase in the energy density (lower weight) compared with current lithium-ion batteries (approximately 250 Wh/kg).

# **Environment/ Climate**

### The Bright Future of Solid-State Batteries in Renewable Energy and EVs (Ytech News)

As the world seeks sustainable energy solutions, solid-state batteries emerge as crucial for enhancing electric vehicles and renewable energy storage systems. With higher energy density, improved safety, and reduced environmental impact, these batteries are set to revolutionize the industry despite current challenges.

### Charging toward net zero: The environmental factors electric vehicles don't fix (Daily Progress)

The U.S. has ambitious goals to curb climate change in the coming decades and electric vehicles feature heavily in that plan. EV vehicles represent an immense leap in automotive industry capabilities made possible by computer chips and battery technology advancements, further nudged by government incentives. But research and current economic and environmental trends

### India's Attero Strides Ahead in Lithium Battery Recycling Innovation (Ytech News)

Attero, India's leading e-waste management enterprise, provides an optimistic outlook on lithium-ion battery recycling in India. Harnessing advanced technology, Attero excels in extracting high-purity materials from e-waste, thereby propelling sustainability in battery production.

# **Investor Relations**

#### Gresham House says grid 'throttling' battery funds as trading lifts in March (citywire)

A 45% rise in monthly trading revenues has raised hopes of a recovery in the three energy storage funds after their devastating first-quarter sell-off. Shares in Gresham House Energy Storage (GRID), which had plunged to a discount of more than 70% after cutting its dividend, yesterday

### American battery technology's chief resource officer buys and sells shares (Investing.com)

In a recent transaction, Scott Jolcover, the Chief Resource Officer of American Battery Technology Co (OTCMKTS:ABML), engaged in both the acquisition and sale of company shares. The executive bought warrants for a total of \$22,259 at prices ranging from \$4.29 to \$6.60. Concurrently, Jolcover sold \$4,079 worth of common stock at a price of \$1.83 to cover tax liabilities.

# Elon Musk: remember other times the conservative billionaire tried to interfere in Latin American politics (BdF)

On Sunday, conservative billionaire Elon Musk, owner of the social media platform X, joined the list of people being investigated in the ongoing inquiry into anti-democratic digital militias by order of Supreme Court Minister Alexandre de Moraes.

### Surge Battery Metals Files Key Lithium Report (TipRanks)

Surge Battery Metals Inc. has filed a technical report for its Nevada North Lithium Project, which indicates significant lithium resources essential for the electric vehicle industry. The report confirms the presence of a large mineralized zone with an estimated 4.67 million tonnes of Lithium Carbonate Equivalent.

# Shock to the System: Sodium-Ion Batteries Set to Overtake Lithium in the Energy Storage Revolution! (Ytech News)

In a world where the usual suspects of energy storage are undergoing a radical shakeup, sodium-ion batteries are the new kids on the block, charging into the limelight and threatening to dethrone the reigning lithium-ion champions.

# SMM Daily Review: Lithium Carbonate Prices Rise on April 8th (SMM news)

On April 8th, SMM reported that the battery-grade lithium carbonate index was 111,565 yuan/ton, an increase of 911 yuan/ton from the previous working day; the price range for battery-grade lithium carbonate was 11.02-11.35 million yuan/ton, with an average price of 11.19 million yuan/ton

#### Lithium Market Struggles to Recover After Epic Boom and Bust (Yahoo)

A stuttering recovery in lithium prices is providing a fresh reminder of why the dramatic rally of recent years was followed by an even more breathtaking collapse: a fast-expanding industry that is more prepared than ever to keep pumping out supplies.

#### Merger/Acquisitions

# AB Dynamics Group acquires VTS; dynamometer testing services focusing on the development and deployment of EVs (Green Car Congress)

AB Dynamics plc has acquired Venshure Test Services (VTS), a leading provider of dynamometer-based testing services to the automotive sector in the US that is focused on the development and deployment of electric vehicles (EVs).

#### **Government/Regulatory**

# The Battery of Southeast Asia: Challenges to Building a Regional Transmission Grid (Foreign Policy Research Institute)

The mighty Mekong River, a life source for millions across Southeast Asia, now faces an existential threat. An ambitious regional plan developed by ASEAN incorporates Lao PDR as the Battery of Asia to generate hydroelectric power for export across the region.

#### BMTC e-bus battery overheating creates concern (BangaloreMirror)

A recent incident of overheating of a Bengaluru Metropolitan Transport Corporation (BMTC)'s electric bus has raised concerns about safety. BMTC officials say that the incident of overheating is being investigated by manufacturers. In the first since the launch of EV buses in the BMTC fleet in 2021

# China must rebalance economic development efforts to silence the West's overcapacity concerns (CSCMP's Supply Chain Quarterly)

China's industrial capacity has emerged as a new focal point of conflict between Beijing and Washington. The US government claims that China's excessive industrial capacity in electric vehicles (EVs), solar panels and lithium-ion batteries is a situation

# Huntsville/LOB Fire Dept. Raises Awareness About Lithium-Ion Battery Devices and the Potential Fire Hazards (Bayshore Broadcasting)

The Huntsville/Lake of Bays Fire Department is raising awareness about the hazards associated with lithium-ion (Liion) battery devices, such as smartphones, laptops, cordless power tools, e-bikes, and various other electronic gadgets prevalent in today's digital age.

#### Report: US must enhance critical minerals strategy in Africa (VOA News)

The United States must refine its Africa policy with a focus on critical minerals, including boosting its diplomatic and commercial presence in African mining hubs, says a report from the Washington-based United States Institute of Peace, or USIP.

#### **Promotional Offers/ Discounts**

#### Ultraviolette offers new warranty structure for F77 battery and drivetrain (The Economic Times)

Ultraviolette offers new warranty structure for F77 battery and drivetrain

#### Health

#### Cox Automotive's Flying Doctor Program: A Beacon of Safety in the EV World (CBT News)

In the rapidly expanding world of electric vehicles (EVs), Cox Automotive's innovative Flying Doctor Program has emerged as a pioneering force in ensuring safety, sustainability, and expertise. The flying doctors zip across the United States, able to be on location in as little as 24 hours to address emergency battery-related incidents in automotive dealerships and on the road.

#### Investment

# Volvo is changing the game with new technology that will soon be offered in every EV: 'This really comes down to reducing a pain point' (thecooldown)

In a move to advance electric vehicle (EV) technology, Volvo Cars has announced its investment in UK startup Breathe Battery Technologies. This investment marks a significant milestone in the automotive industry's transition toward electrification.

#### Ferrari is making a high-performance investment into its electric future (MSN)

Like most automotive brands, the future of sports car brands like Ferrari (RACE) is defined by the advent of high performance electric-powered vehicles. Though rivals like Lamborghini can claim that their EVs will be an "emotional" experience, Ferrari is pouring in major amounts of money into actual key research for its electric future.

### **Corporate Social Responsibility**

#### Fire Safety Alert: Handling Lithium-Ion Batteries with Care (Ytech News)

The widespread use of lithium-ion batteries in a host of common electronic devices has prompted the Huntsville/Lake of Bays Fire Department to launch an awareness campaign focusing on the dangers posed by these energy sources if mishandled.

#### **Contract/Orders**

# **Bull Vs Bear: JPMorgan's enthusiasm on Exide Industries contrasts with Kotak's caution** (CNBCTV18)

In a note, JPMorgan highlighted that Exide Industries' ability to secure a partnership with a marquee global original equipment manufacturer (OEM) allays most investor concerns. It also suggested that further order wins could be on the anvil as the company continues to be in discussions with several OEMs.

#### **Human Resources/ Employees Related**

### US says SK Battery faces USD 77,200 in fines over employee health hazards (The Economic Times)

The U.S. Labor Department said on Monday that SK Battery America faces USD 77,200 in fines for five serious safety violations after workers in Georgia suffered potentially permanent respiratory damage in an October 2023 lithium battery fire.

# Opinion/Feature/Trends

### Studies/Surveys

#### It's Time to Say Goodbye to Single Use Batteries (HotTomato)

Millions of single use batteries are thrown away every day posing a significant threat to the environment due to their widespread use and improper disposal methods. These batteries contain toxic chemicals such as lead, mercury, and cadmium, which can leach into the soil and water when they end up in landfills.

#### Here are some things you may not know about handling your electronics (CTV News)

Fire officials are warning the public about the potential risks associated with devices that use lithium-ion (Li-ion) batteries and offering some tips on how to avoid sparking a fire. Lithium-ion batteries are used in smartphones, laptops, cordless power tools, e-bikes, and other electronic devices.

### The Hidden Dangers of Lithium-Ion Batteries and How to Stay Safe (Ytech News)

In a world increasingly reliant on portable electronics, fire safety experts issue a compelling cautionary advisory about the inherent dangers posed by widely used lithium-ion batteries. These power sources, which are found in an array of devices including smartphones, portable computers, and electric bicycles, can pose a significant fire hazard if not handled with care.

# Will Solid-State Lithium-Ceramic Batteries Spark a Revolution in Energy Storage? (Ytech News)

As we navigate through the maze of today's technological advancements, a groundbreaking development looms on the horizon that could transform the landscape of energy storage: solid-state lithium-ceramic batteries. Imagine a world where a single charge could whisk electric vehicles across continents and smartphones could run for days without seeking a power socket.

#### What DOD and SOC mean when using lithium batteries (Yacht Harbour)

DOD and SOC, these abbreviations are almost unavoidable when it comes to the service life of rechargeable batteries. DOD stands for depth of dischargedepth of discharge. SOC stands for State of chargei.e. the current state of charge.

#### **Business Partnership**

# Battery Stock Continues Surge After Major Partnership: Why Brokerages Are Divided (Investing.com)

Exide Industries share price was off to a volatile start on Tuesday morning but regained momentum going up around 2%. What Happened: Shares of the battery major received a massive bump on Monday after the company announced a major partnership with auto giants Hyundai and Kia.

#### **Environment/Climate**

#### Can EV battery recycling help challenge China's monopoly over this tech (Straight Arrow News)

When it comes to making batteries for electric vehicles (EVs), experts say China has as much as a 15-year head start on the rest of the world. Beijing's stranglehold over the mining and refining of the rare earth materials used in this technology is an increasing concern for U.S. officials and it is partly why the Biden administration pledged \$62 million toward EV battery recycling initiatives.

### Spent lithium battery recycling and strategies (pv magazine)

How much lithium battery waste is produced every year in India and what is the potential for lithium and other critical material recovery In India, approximately 70,000 metric tons of lithium battery waste is generated annually, posing several environmental challenges.

#### **New Products/Services**

### iPhone 16 Battery Details Leak: What to Expect (The Hans India)

Leaked details hint at possible changes in battery capacities for the upcoming iPhone 16 series compared to their predecessors, the iPhone 15 models. While Apple usually keeps battery specifics confidential, a recent leak from a Weibo tipster sheds light on what users might expect from the iPhone 16 lineup.

#### **Investor Relations**

### Top 10 at 10: Who's digging for fluorite, the lithium killer (Stockhead)

Stockhead's Top 10 at 10, published at ~10.40am each trading day, highlights the best (and worst) performing ASX stocks in morning trade using live data. It's a short, sharp update to help frame the trading day by showing the biggest movers in percentage terms.

### Press Release

#### **Fund Raising/Grants**

<u>Carrar Raises \$5.3 Million to Deliver Commercial Battery Modules for Electric Vehicles that Triple Battery Lifetime</u> (Business Wire)

Carrar, a provider of battery modules and thermal management systems for electric vehicles (EVs), today announced the closing of its \$5.3 million Series A funding round to deliver commercial automotive-grade battery modules for electric vehicles with novel internal thermal management based on two-phase immersion technology.

#### **Environment/Climate**

#### Amprius Selected to Power AIBOT's aiEVTOL Ecosystem (Yahoo)

Amprius Technologies, Inc. ("Amprius" or the "Company") (NYSE: AMPX), a leader in next-generation lithium-ion batteries with its Silicon Anode Platform, today announced it has been selected by AIBOT, a trailblazer in the development of crewed and uncrewed Electric Vertical Takeoff and Landing (eVTOL) aircraft solutions for advanced air mobility

### Studies/Surveys

# EnerSys Elevates Mark Matthews to President, Specialty Global, Fueling Energy Transition with Lithium Innovation (mychesco.com)

EnerSys (NYSE: ENS), a global provider of stored energy solutions for industrial applications, recently promoted Mark Matthews to the role of President, Specialty Global. Matthews, who has been with EnerSys since 2016 and most recently served as Senior Vice President, Specialty Global

### **Exports/Imports**

### Germany Warned From Heavily Relying On Asian Semiconductors, Lithium Imports (MENAFN)

A study by the Deloitte Economics Institute warned Germany from heavily relying on Asia-Pacific markets' imports of semiconductors and lithium, used for electric car batteries. The study also mentioned that Germany's reliance on Asia-Pacific markets, especially China, has risen immensely in the last ten years.

#### Video

#### Studies/Surveys

### BYD reveal new cheaper LFP Blade battery with 27% higher energy density (youtube)

The Electric Viking tagged products below. Learn more

#### Fire rips through battery recycling plant (BBC)

Emergency teams were called to the site on Byrehill Road in Kilwinning on Monday evening. The road has been closed and local residents are being asked to keep their windows and doors closed as a precaution.

# Blogs and Forums

#### **Investor Relations**

### Why Electric Vehicle and Affiliated Stocks Zoomed Higher Today (The Motley Fool)

Makers of batteries, materials suppliers, and manufacturers stand to gain significantly from the rise of a certain electric vehicle segment. The electric vehicle (EV) sector hasn't exactly been a favorite of investors so far this year, but you wouldn't know that from how EV and related stocks traded on Monday.

# Snippet

**New Products/Services** 

Made in India electric truck with 24,000 Nm torque, 300 kWh battery: Tresa VO. 2 details (The Times of India)

NoiseFit Active 2 launched with AMOLED display, 10-day battery life and more (moneycontrol)

The Fairbuds noise-canceling earbuds have an easily swappable battery (The Verge)

Hands-On With Mod's New Easy Sidecar E-Bike (lifewire)

Never Miss A Moment: Top 10 Power Banks To Keep Your Devices Charged (Outlook India)

Sales

You asked, we answered: Your questions about electric vehicles (KTOO)

Studies/Surveys

Electric Transit Bus and Coach Market Growth Opportunities to 2030 - Expanding Revenue Opportunities for Value Chain Participant Growth (Yahoo)

Lithium-ion Battery Market Innovations Investigated by Reviews Analysis Report 2024 (WhaTech)