# Welcome to the Largest Battery Fair in the World

# **CIBF2020**

# 14th China International Battery Fair

Accompanied by:

5<sup>th</sup> China Energy Storage Exhibition

3<sup>rd</sup> China Power Bank Exhibition

## **Theme**

"xEV and Energy Storage" Bring Huge New Market for Batteries & Drive Continued Technology Innovation of the Battery

May 25-27, 2020

Shenzhen Convention & Exhibition Center (Add.: Fuhua Third Road, Futian District, Shenzhen China)

# Organizer China Industrial Association of Power Sources

### **Supporters**

Tianjin Institute of Power Sources

National Engineering Research Center of New Power Sources

National Quality Supervision & Testing Center of Chemical & Physical Power Sources

Chemical & Physical Power Source Branch, Chinese Institute of Electronics

Battery Committee, Chinese Electrotechnical Society

National Technical Committee on Alkaline Storage Battery of SAC

National Technical Committee on Solar PV Energy System of SAC

National Key Lab. of Chemical & Physical Power Sources

#### **PREFACE**

China Industrial Association of Power Sources will hold the "14<sup>th</sup> China International Battery Fair (CIBF2020)" on May 25 to 27, 2020 in Shenzhen Convention and Exhibition Center. CIBF2020 will be accompanied by the 5<sup>th</sup> China Energy Storage Exhibition and 3<sup>rd</sup> China Power Bank Exhibition.

For CIBF2020, the exhibition area is 105000 square meters, the number of exhibitors will be up to 1350, the number of booths will be over 5500. CIBF2020 will focus on the global 3C battery, power battery, energy storage battery, various battery materials, manufacturing equipment and system solutions, with a special focus on the series of achievements in the field of new energy passenger bus, passenger cars and logistics vehicles in our country in the last two years. The theme of CIBF2020 technical conference will be "power batteries and energy storage batteries", focusing on electric vehicle batteries and micro-grid, smart grid and energy storage battery with a variety of the latest developments. There will be 1500 people from more than 50 countries and regions attend the meeting.

CIBF2020 will be a trade platform for battery manufacturers and users to exchange ideas on new technology, to expand their markets and promote their products and services to customers in the worldwide marketplace.

Welcome the battery manufacturers, vendors, research institutions, universities and users to take part in CIBF2020

#### ORGANIZED WAY

(1) Exhibition (2) Technical Conference (3) Procurement Fair

#### SCOPE OF EXHIBITION

- (1) All kinds of Batteries: Li-ion, NiMH, Ni-Cd, lead-acid, zinc-air, super-capacitors, Na-S, flow cell, lithium primary, Zinc manganese batteries, alkaline manganese batteries, nickel zinc batteries, silver zinc battery, thermal battery, fuel cells, solar cells, thermoelectric cooling modules and other new battery types;
- (2) All kinds of battery pack: battery packs for feature phones and smart phones, laptop tablets and computers, walkie talkie, cordless phones, digital products, emergency lights, electric toys, UPS, railway locomotives and passenger cars, metro vehicle, ship, unmanned aerial vehicles and aeromodelling etc.;
- (3) Power batteries and management systems: unmanned aerial vehicle, model airplane, power batteries, electric bicycles, electric tricycles, low speed electric cars, electric buses, electric passenger cars and electric logistics vehicles and battery management system;
- (4) EV charging station and related facilities: Charging pile, charging for intelligent network of power plant, electric vehicle charging station, charging station power distribution equipment, charging for battery and battery management system, parking lot charging facilities and intelligent monitoring equipment, charging station power supply solution, charging stations, smart grid solutions, etc.;
- (5) All kinds of energy storage batteries and EPC: large scale energy storage, micro grid, distributed energy, home storage system, communication base station energy storage, industrial energy storage technology, home energy storage, electric car storage charge (change) power plants, BMS battery management system, PCS storage energy inverter and variety of chemical energy storage and physical energy storage products;
- (6) Mobile power and related products: all kinds of brand mobile power products, a variety of specifications for lithium ion battery, all material shell, mobile design scheme of power supply and charger IC, protection circuit and PCB circuit board, USB interface and data lines
- (7) Solar cell, system and applications: Silicon solar cells and materials; thin film solar cells and materials; solar transparent packaging material; solar cell and module production equipment, testing equipment; solar street light, lawn light, traffic lights, etc.; solar chargers; users of photovoltaic power, grid-connected photovoltaic systems, photovoltaic power transmission and distribution equipments; inverter; measurement and control systems; solar system control software
- (8) Battery manufacturing equipments, testing instruments, chargers, raw materials and components for all kinds of batteries;
  - (9) Battery recycle technologies and processing equipments.
  - (10) Battery testing and certification bodies, etc.

#### **EXHIBITION FEES**

There are standard exhibition booth  $(9m^2: 3m \times 3m)$  and space area (min area  $36 m^2$ ). The standard booth fee is  $US$3000/9m^2$  and the space area fee is  $US$300/m^2$ .

Each standard booth (9 m²) provides a fascia in Chinese-English (two for angular position), one table, two folding chairs, two lamps, one power socket, one basket, one carpet, three exhibition walls (3 x 3 x 2.5m), two staff lunch for three days and company contact information printed in the CIBF2020 Catalogue (to exhibition form shall prevail).

#### **BOOTH ARRANGEMENT**

#### Allocation of booths:

The exhibition hall is divided into battery products and application area (Hall 1), raw materials and spare parts area (Hall 7, 8, 9), manufacturing equipment and test instrument area (Hall 2, 3, 4, 5, 6). The exhibitors from outside China, Hong Kong SAR, Macao SAR and Taiwan China will be arranged in the Hall 1.

The principle of booth arrangement is applying early, paying early, and assigning early. The booth fee should be remitted to the designated bank account after confirmation of the booth within a week. The organizer has the right to sell the selected booth to other companies if overdue.

Favorable terms: The CIBF2018 exhibitors can enjoy 10% discount.

Cancellation: Those who are not able to take part in the exhibition after application for particular reasons are allowed to withdraw. The procedure should be handled after confirming by the committee during the designated time period. If the exhibitors quit before March 1, 2020, the committee will claim 30% of the booths fee for compensation and repay the rest. If the exhibitors quit from March 1 to May 1, 2020, the committee will claim 60% of the booths fee for compensation and repay the rest. If the exhibitors quit after May 1, 2020, there will be no repayment.

#### **EXHIBITION PROCESS**

- (1) Exhibitors are requested to go to the CIBF official website (www.cibf.org.cn) for registration during the confirmation exhibition and to choose the booth through the online booth map;
- (2) An online participation contact will be generated within 5 workdays after CIAPS received the exhibitor's application. Please download and stamp. Please remit the booth fee to the designated bank account within 10 workdays. The exhibitors need to fill in the CIBF2020 application form and email it to CIBF2020 Office.
- (3) Organizer will make out an invoice after receiving exhibitors' remittances within 30 working days (the day will be automatically extended for one week for holidays or at the beginning/end of the month), and express it to the exhibitors;
- (4) **CIAPS** will inform the exhibitors the user name and password on website <u>www.cibf.org.cn</u>. The exhibitors should upload the detailed company information, products and news.
  - (5) The booth confirmation will be sent to the exhibitors by email 1-2 months before the fair.
- (6) The exhibitors need to take the booth confirmation to on-site registration for the exhibition and exhibition procedures.

#### TECHNICAL CONFERENCE

CIBF2020 technical conference will be named as "China International Conference on the Frontier Technology of Advanced Batteries, CIBF2020". Please see the technology conference announcement on website for more information.

#### ADVERTISING RESERVATION

1. Catalogue advertising: CIAPS will edit and print the Catalogue CIBF2020 in Chinese and English, which will include exhibitor information, agendas of the exhibition and conference. The printing quantity is 10000. Both of exhibitors and non-exhibitors can advertise in the catalogue and exhibitors can enjoy 20% discount.

Cover	US\$5700	Back cover	US\$4500
Inside front cover	US\$4500	Inside back cover	US\$4000
Color	US\$1200	Black and white interpolation	US\$750
interpolation		_	

#### 2. Ticket advertisement:

Data bag advertisement	US\$8500
Printing quantity is 6000.	
The exhibition card back and lanyard advertisement	US\$7000
(12000 set)	

The visitor card back and lanyard advertisement (35000 set)	US\$8500
The lunch ticket back advertisement	US\$7000
(10000 pieces/day)	

Any question about the exhibition, conference and advertising, please contact:

CIBF2020 office

Address: No. 6, Huake 7th Road, Hi-tech Industry Park, Xiqing District, Tianjin 300384, China.

Website: www.cibf.org.cn

**About the exhibition, please contact:** 

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Ms. Wang Xichen: Tel.:+86-22-23959049, E-mail: wangxichen@ciaps.org.cn

About the conference, please contact:

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China Industrial Association of Power Sources Oct. 15, 2019

#### **CIBF**

China Industrial Association of Power Sources is the organizer of China International Battery Fair (CIBF). The CIBF is a battery industry international regular fair, which is held biennially in China, and has become the largest battery fair in the world. CIBF includes exhibition, technical conference and procurement fair. CIBF is the first registered trademark exhibition and approved by the State Administration for Industry and Commerce Trademark Registration on Jan. 28, 1999, and re-approved in 2009.

The 1<sup>st</sup> CIBF was hold in Tianjin in September 1992, and became a regular fair which is held biennially in China. CIBF was hold 6 times in Beijing. The 6<sup>th</sup> CIBF was postponed from 2003 to 2004 because of SARS. The 8<sup>th</sup> CIBF was hold in Tianjin because Olympic Games were hold in Beijing that year. CIBF was hold the first time in Shenzhen in 2010, and was hold 5 times successfully in Shenzhen since then.

#### HISTORY OF CIBF

Years	1992	1995	1997	1999	2001	2004	2006	2008	2010	2012	2014	2016	2018
Exhibitors	56	118	180	237	256	323	401	470	670	859	1000	1135	1253
Booths	75	126	236	305	374	460	596	892	1455	2400	2500	4000	5500
City	Tianjin	Beijing	Beijing	Beijing	Beijing	Beijing	Beijing	Tianjin	Shenzhen	Shenzhen	Shenzhen	Shenzhen	Shenzhen

The 13<sup>th</sup> China International Battery Fair which was hold from May 22 to 24, 2018 in Shenzhen was very successful. CIBF2018 included exhibition, technology conference, the 3th China International Energy Storage Conference, international buyers fair, standards forum on distributed energy system, new energy project docking and investment and financing fair, etc.

For CIBF2018, the exhibition area is 101610 square meters, the number of exhibitors increased from 1135 to 1253, the number of booths was over 5500. The visitors are 42780, among them, the domestic audience was 41522, and the oversea audience was 1258. According to administrative analysis, the audience from the Southern China area accounted for 47.33%, the other regions were: 7.44% in North China, 33.45% in East China, 1.47% in Northeast China, 8.72% in Central China, 2.56% in Southwest China and 1.47% in Northwest China.

CIBF2018 Technical Conference---China International Conference on the Frontier Technology of Advanced Batteries were hold on the fifth floor of Shenzhen Convention & Exhibition Center in May 22-24, 2018, focusing on the latest progress of electric vehicle batteries and smart grid energy storage battery, display and released the global battery industry the new theory and technology industry breakthrough. More than 55 top experts at home and abroad have been invited to give a keynote speech. More than 1300 industry experts, scholars and entrepreneurs from more than 50 countries and regions have attended the meeting.

At the same time, the organizers also invited more than 80 battery buyers from more than 30 countries to visit the exhibition, and held the international battery buyers purchasing fair at the scene with the battery suppliers.

#### CHINA INDUSTRIAL ASSOCIATION OF POWER SOURCES

China Industrial Association of Power Sources (CIAPS) was founded in December 1989, is the first grade professional battery association in China. It has more than 500 members and has nine branches, including alkaline battery and new type chemical power sources branch, lead acid storage battery branch, lithium battery branch, dry cell branch, solar energy photovoltaic branch, accessory and equipment for battery branch, power bank branch, energy storage battery applications branch and power battery application branch.

According to enterprise declaration data and annual report data of listed company, China Industrial Association of Power Sources(CIAPS) issued a list '2018 Top 100 Battery Enterprises in China' on July29,2019. Tianneng Power International Limited again ranked 1<sup>st</sup> among the top 100 of battery enterprises in China with ¥34.552 billion, up 28.4% year-to-year. CATL ranked 2<sup>nd</sup> with ¥29.611 billion, up 48.1% year-to-year. Chaowei Power Holdings Limited(CHILWEE) ranked 3<sup>rd</sup> with ¥26.948 billion, up 9.3% year-to-year. ATL and BYD ranked 4<sup>th</sup> and 5<sup>th</sup> with ¥24.665 billion and ¥21.807 billion respectively, up 32.7% and 45.5% respectively.

In 2018, the top 100 battery enterprise in China achieve a total revenue of ¥449.9 billion, up 19.9% from ¥375.1 billion in 2017. There were 25 lead-acid battery enterprises among the top 100 in the new battery enterprises in China, operating revenue of lead-acid batteries was ¥118.746 billion, accounting for 26.4%; 39 lithium-ion battery enterprises had revenue of ¥156.427 billion, accounting for 34.8%; there were 7 lithium-ion battery module enterprises, and operating revenue of lithium-ion battery module was ¥53.93 billion, accounting for 12%; there were 9 zinc-manganese/alkali-manganese battery enterprises, and operating revenue of ZN-MnO2/alkali-manganese battery was ¥18.014 billion, accounting for 4%; there were 7 Ni-MH/Ni-Cd batteries enterprises, and operating revenue of Ni-MH/Ni-Cd batteries enterprises was ¥3.044 billion, accounting for 0.7%; there were 26 materials enterprises, and operating revenue of various categories was ¥75.41 billion, accounting for 16.8%; there were 4 equipment enterprises with operating revenue ¥6.339 billion, accounting for 1.4%.

Characteristics of TOP100 enterprises in 2018:

- (1) The scale of enterprises had further expanded and the concentration had increased again: for the first time, one of the top 100 enterprises had a operating income of more than ¥30 billion; there were 5 enterprises had a operating income of more than ¥20 billion, three more than in 2017; there were 8 enterprises had more than ¥10 billion in operating income, one more than in 2017; there were 23 enterprises had more than ¥5 billion in operating income, 8 more than in 2017. The lowest operating income of the listed enterprises was ¥771 million, compared with ¥679 million in 2017.
- (2) Lead-acid batteries were still in great demand in automotive start, electric bicycles, electric tricycles, low-speed electric vehicles, electric forklifts, communications, new energy storage and other fields, but the total output growth rate was only 2% in 2018. The concentration of lead-acid battery industry had been further improved. There were more than 340 lead-acid battery enterprises in China. Because of the consumption tax levied, the profit of enterprises was compressed, and the survival of enterprises had more pressure. Some enterprises had increased their distribution in Vietnam, India and Central Asia, expanded their overseas production and intensified their efforts to develop international markets.
- (3) Lead- acid batteries faced competition from lithium-ion batteries in many fields. In the long term, lead-acid batteries had been replaced by lithium-ion batteries in communication backup power, electric bicycles, new energy storage, low-speed electric vehicles, etc. In consumer electronics products, lithium-ion batteries also replaced NI-MH batteries rapidly. The market of NI-MH batteries was gradually shrinking. Most of the NI-MH batteries enterprises had more income from lithium-ion batteries than NI-MH batteries.

According to statistical analysis from CIAPS, the operating revenue of lithium-ion batteries in China reached ¥172.7 billion in 2018, up 8.7% from ¥158.9 billion in 2017. The output of lithium-ion batteries increased from 100.9 billion Wh to 124.2 billion Wh, and had 23.1% over the same period last year. This

was mainly due to the rapid growth of EVs battery and energy storage battery market. Among them, the operating revenue of lithium-ion batter of consumer electric product increased from \$\cong 75.7\$ billion to \$\cong 77.2\$ billion, had increase of 2% over the same period of last year. And the output increased from \$52.4\$ billion Wh to 54 billion Wh, had increase of 3% over the same period of last year. The main market of batteries for consumer electronics products was mobile phone, laptop, power bank, power tools and wearable devices. The demand of them decreased, but demand for lithium-ion batteries for electric bicycles, power tools and wearable devices had increased. The operating revenue of lithium-ion battery for EVs was \$\cong 78\$ billion, had increase of \$14.3\% over the same period of last year; the output increased from \$44.6\$ billion Wh to 65 billion Wh, had increase of 45.7\% over the same period of last year. The operating revenue of lithium-ion battery for energy storage increased from \$\cong 5.2\$ billion to \$\cong 6.5\$ billion, and had increase of 20\% over the same period of last year. The output increased from 3.9 billion Wh to 5.2 billion Wh, had increase of 35\% over the same time of last year.

The market demand of lithium-ion battery was huge, but the competition of enterprises increased intensely, and the enterprise integration was in progress. With the deep adjustment of policies and rapid decline subsidies, the concentration of power battery enterprise continued to increase, and the market would further centralize to the head enterprises. In 2018, the Installed xEV Battery of top 20 enterprises accounted for 91.8%. The first five enterprises accounted for 73.6%, and the first two enterprises accounted for 61.3%. The Installed xEV Battery of top 20 enterprises accounted for 96.5% from January to May in 2019. The Installed xEV Battery of first five enterprises accounted for 80%, and the first two accounted for 70%. In 2019, enterprises were facing multiple pressures, such as a sharp decline in subsidies, an increase in energy density and lower limit of the endurance, and a tight enterprise capital chain. The second and third-tier echelon enterprises faced greater financial pressures. Many enterprises had abandoned EV battery business and turned to electric tools and electric bicycles. In the first half of 2019, the number of matching EVs battery enterprises dropped to less than 70, and the number of power battery enterprises will further decrease in the latter half of the year.

Power battery enterprises had a strong desire to reduce cost in short term. They would like to be compensated as much as possible by 'cost reduction' measured such as upstream separator, electrolyte, cathode, anode, as well as 'efficiency enhancement' measured such as increasing energy density, standardization. In the next 3 to 4 years, it will be the most difficult period for upstream and downstream enterprises of power battery industry chain. Especially in cost reduction, upstream and downstream enterprises will face unprecedented challenges. The whole industry chain need to cooperate together to overcome difficulties. Enterprises rapidly expand and occupy the market through comprehensive advantages of product cost performance ratio, but also to maintain a reasonable cash flow in order to ensure the normal operation. The quality and safety should be the first for power battery enterprises, otherwise enterprises have to pay huge cost. Only with strong technology accumulation, sufficient financial support, cost-effective products, and faster response marketing, enterprises could lead in the fierce market competition in the future and win the market. Enterprises should catch the opportunity of 'Belt and Road Initiative', international capacity cooperation, establish an international R&D institution, carry out overseas layout, brand cultivation and other high-end links in the industrial chain should be transferred to accelerate integration into the global market.

NO.	Enterprise Name	Major Products	Operating Income(Million RMB)
1	Tianneng Power International Limited	Lead-acid Battery,Li-ion Battery Recycling	34,552.09
2	CATL	BMS Recovery of	2,961,126
3	Chaowei Power Holdings Limited	Li-ion Battery  Lead-acid Battery  Li-ion Battery	29,611.26 26,948.23
4	ATL(Ningde)	Li-ion Battery for Customer Electronics	24,645.98
5	BYD	Li-ion Battery	21,807.15
6	DESAY	Li-ion Battery Pack,BMS	17,249.23
7	SUNWODA	Mobile Phone, Li-ion Battery Pack for Laptop,Power Li-ion Battery	15,911.46
8	LG Chem (Nanjing)	Li-ion Battery	10,099.21
9	Fengfan Co., Ltd.	Lead-acid Battery	9,952.87
10	Dongguan NVT Technology Co., Ltd.	Li-ion Battery Pack,Power Bank	9,697.05
11	Leoch International Technology Limited	Lead-acid Battery	9,544.41
12	Camel Group Co., Ltd.	Lead-acid Battery,Li-ion Battery Recycling	9,223.77
13	Narada Power	Lead-acid Battery,Li-ion Battery Recycling	8,063.13
14	GEM Co., Ltd	Cathode Material	7,964.12
15	Murata Energy Device Wuxi Co., Ltd.	Li-ion Battery for Customer Electronics	7,101.14
16	SHUANGDENG GROUP	Lead-acid Battery	7,030.40
17	XTC	Cathode Material, NI-MH Alloy	7,027.81
18	SCUD	Li-ion Battery Pack	6,962.07
19	TIANQI LITHIUM	Lithium Carbonate	6,244.41

	GUANGZHOU TIGER HEAD	Zinc-Manganese	
20	BATTERY GROUP CO.LTD	Battery	6,209.25
21	TIANJIN LISHEN BATTERY JOINT-STOCK CO.LTD.	Li-ion Battery	5,138.33
22	Huafu Energy Storage	Lead-acid Battery	5,099.34
23	GANFENG LITHIUM CO.,LTD	Lithium Compound Lithium Metal, Li-ion Battery, Li-ion Battery Recycling	5,003.88
24	Lanzhou Jinchuan Advanced Materials Technology Co.,Ltd.	Metal Cobalt,Cobaltosic Oxide,NixCoyMn(1-x -y) (OH) 2	4,843.31
25	Zhuhai COSMX Battery Co., Ltd.	Polymer Lithium-Ion Battery	4,731.23
26	Hefei Guoxuan High-tech Power Energy Co., Ltd	Power Li-ion Battery	4,686.11
27	Hunan Shanshan	Cathode Material	4,667.98
28	Tianjin Samsung SDI	Li-ion Battery	4,626.09
29	ATL(Dongguan)	Li-ion Battery for Customer Electronics	4,451.39
30	EVE Energy Co., Ltd	Lithium Primary Cell, Li-ion Battery For Customer Electronics, Power Li-ion Battery, Li-ion Battery for Energy Storage	4,351.18
31	PRIDE POWER	Li-Ion Power Battery System for Vehicle	4,244.46
32	BTR	Cathode & Anode Material,Lithium Electric Functional Materials and Nanomaterials	4,008.70
33	Tianjin B&M Science and Technology Co.,Ltd.	Cathode Material	3,919.64
34	OptimumNano Energy Co.,Ltd	Li-ion Battery	3,851.75
35	SAPB	Li-ion Battery	3,606.46

	Wuxi Lead Intelligent Equipment	Li-Ion Battery	
36	Co., Ltd.	Equipment	3,443.77
37	COSLIGHT GROUP	Li-ion Battery, Valve Regulated Lead Battery, Ni-MH battery	3,366.02
38	Beijing Easpring Material Technology Co., Ltd,	Cathode Material and Equipment	3,280.66
39	BAK POWER	Li-ion Battery	3,268.84
40	Zhongyin (Ningbo) Battery Co., Ltd.	Zinc-Manganese Battery	3,230.32
41	Ronbay Technology (Ningbo Ronbay Lithium Battery Material Co., Ltd.	Cathode Materials and Precursors for Lithium Ion Batteries	3,041.26
42	Vision Group	Lead-acid Battery,Li-ion Battery,Fuel Cell	2,956.16
43	NANFU Battery	Zinc-Manganese Battery	2,701.85
44	GUIZHOU ZHENHUA E-CHEM CO.,LTD.	Cathode Material	2,659.77
45	Jiangsu Haibao Battery Technology Co.,Ltd.	Lead-acid Battery	2,600.19
46	Guangzhou Great Power Energy &Technology CO.,LTD	Li-ion Battery and Lithium-Iron Battery,Lithium-mang anese dioxide Battery, Ni-MH battery etc.	2,568.71
47	Shanghai Institute of Space Power-sources (SISP)	Solar Cell, Nickel-Cadmium Battery, Ni-MH Battery, Zinc-Silver Battery,Zinc-Silver Battery for Energy Storage and Power Management System	2,397.06
48	Phylion Battery Co.,Ltd.	Li-ion Battery for Electric Bicycle and Electric Vehicle	2,130.72
49	XUPAI Battery	Lead-acid Battery	2,120.40

50	Shenzhen Yinghe Technology Co.,Ltd	Automatic Production Equipment for Li- ion BatterY	2,087.28
51	HANHOO	Cathode Material and Equipment for Li-ion Battery	2,057.60
52	SAMSUNG (Tianjin) Battery	Cylindrical Li-ion Battery	2,031.45
53	CHUANXI STORAGE BATTERY GROUP	Lead-acid Battery	2,004.50
54	TMB	Li-ion Battery	1,991.42
55	JIANGXI ZICHEN TECHNOLOGY CO.,LTD	Anode Material	1,982.47
56	HONGKONG HIGHPOWER TECHNOLOGY CO.,LTD	NI-MH Battery,Li-ion Battery,Recycling for Useless Battery	1,950.36
57	Shanghai Shanshan Tech Co., Ltd.	Anode Material and carbons Material	1,937.93
58	BEIJING NATIONAL BATTERY TECHNOLOGY CO.,LTD.	Power Li-ion Battery	1,936.89
59	Shandong Sacred Sun Power Sources CO.,LTD.	Valve Regulated Lead Battery	1,835.56
60	Soundon New Energy Technology Co.,Ltd.	Cathode Material	1,793.69
61	JIANGSU HIGHSTAR	Li-ion Battery,NI-MH Battery and Material,Battery Management System	1,748.73
62	SHANDONG ZIBO DISON POWER SUPPLY CO.,LTD	Li-ion Battery,Li-pol ymer,NI-MH Batter y, nickel-cadmium batte ry	1,550.83
63	SinoEV(Hefei) Technologies	Li-ion Battery Pack for EV and Battery Management System	1,508.83
64	HUNAN FENGRI POWER&ELECTRIC CO.,LTD	Lead-acid Battery,DC Power, High-Voltage and Low-voltage assemblies	1,414.92

65	WOLONG ELECTRIC GROUP ZHEJIANG DENGTA POWER SOURCE CO.,LTD.	Lead-acid Battery	1,376.28
66	Shenzhen zhuoneng new energy Limited by Share Ltd.	Li-ion Battery	1,374.00
67	Guangdong Pisen Electronics Co. Ltd	Li-ion Battery Pack	1,371.42
68	SEMCORP	Li-ion battery separator	1,328.06
69	Tianjin Tong Yee Industrial Co., Ltd.	Lead-acid Battery	1,288.51
70	Fujian Minhua Power Source Co., Ltd	Lead-acid Battery	1,286.18
71	GUANGZHOU TIANCI MATERIALS TECHNOLOGY CO.,LTD.	Electrolyte for Li-ion Battery,LiFePo4 Cathode Material Used for Li-ion Battery	1,280.44
72	KIJO GROUP	Lead-acid Battery	1,260.86
73	MEIDU HITRANS	Cathode Material	1,254.66
74	DURACELL(China)	Zinc-Manganese Battery	1,228.34
75	Dongguan Greenway Battery Co.,Ltd.	Li-ion Battery	1,200.00
76	NINGBO VEKEN BATTERY COMPANY	Li-ion Battery	1,189.16
77	Xiendi Technology Co., Ltd. (C&D TECHONOLOGIES)	Lead-acid Battery	1,181.11
78	China Aviation Lithium Battery (Luoyang) Co., Ltd(CALB)	Power Li-ion Battery	1,180.02
79	Hunan Corun New Energy Co., Ltd.	Power Ni-MH Battery,Battery Material,Nickel Batteries and mixing systems	1,173.69
80	Microvast Power Systems Co., Ltd.	Power Li-ion Battery System	1,165.85
81	Enersys Huada Batteries Ltd.,Co	Lead-acid Battery	1,163.07
82	MUSTANG	Zinc-Manganese Battery	1,100.99

	Zhangjiagang Guotai Huarong	Electrolyte for Li-ion	
83	Chemical New Material Co., Ltd.	Battery	1,072.61
84	Shenzhen Capchem Technology Co., Ltd. (CAPCHEM)	Electrolyte for Li-ion Battery, Electrolyte Additive Agent and New Lithium Salt	1,072.49
85	DLG BATTERY	Li-ion Battery	1,070.38
86	CHANGHONG NewEnergy	Zinc-Manganese Battery	1,066.32
87	First Battery of FAR EAST HOLDING GROUP Co.,Ltd.	Li-ion Battery	1,065.19
88	Shenzhen Dynanonic Co., Ltd.	Nano Lithium-Iron Phosphate, Carbon Nanotubes,Electrolyte for Carbon Nanotubes	1,053.65
89	TENPOWER	Li-ion Battery	991.08
90	Fujian Yaheng Power Technology Group Co.,Ltd.	Lead-acid Battery	946.73
91	Xinxiang Tianli Lithium Energy Co., Ltd.	Cathode Material	936.94
92	Shandong Zhongxin Dison Power Supply Co.,Ltd.	Li-ion Battery, Li-polymer Battery,NI-MH Battery	911.85
93	RiseSun MGL	Li-ion Battery	902.99
94	Ningbo Donghai Storage Battery Co.,Ltd.	Lead-acid Battery	898.56
95	Linyi Huatai Battery Co.,Ltd.	Zinc-Manganese Battery	882.67
96	XIANGTAN ELECTROCHEMICAL SCIENTIFIC LTD.	Electrolytic Mangane se Dioxide, LiMn2 O4	828.67
97	GUANGXI WUZHOU SUNWATT BATTERY Co.,Ltd.	Zinc-Manganese Battery	802.27
98	YUASA(Shunde)	Lead-acid Battery	793.29
99	Hangzhou Long Life Battery Co., Ltd.	Zinc-Manganese Battery	792.46

100	Panasonic(PSBS)		Lead-acid Battery	771.55
		Total		449,935.42

## Reference:

①Y is a symbol of Chinese currency

②\$1=¥6.8785; ¥100=\$14.54

# **China Industrial Association of Power Source**

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