China XD Plastics Co Ltd
Form 10-K
March 16, 2015
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2014

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File No. 001-34546

CHINA XD PLASTICS COMPANY LIMITED
(Exact name of registrant as specified in its charter)

Nevada	04-3836208
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
No. 9 Dalian North Road, Haping Road Centralized Industrial Park, Harbin Development Zone, Heilongjiang Province, P. R. China	150060
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (86) 451-8434-6600

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, $0.0001	NASDAQ Global Market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by checkmark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by checkmark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes No

Indicate by checkmark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by checkmark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by checkmark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company)	Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

The aggregate market value of the voting and non-voting common equity held by non-affiliates as of June 30, 2014 was approximately $140,630,319.

As of March 10, 2015, there were 49,151,796 shares of common stock, par value US$0.0001 per share, outstanding.

Documents incorporated by reference: None.

CHINA XD PLASTICS COMPANY LIMITED
FORM 10-K ANNUAL REPORT
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2014

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PART I

ITEM 1. BUSINESS.

Our Business

China XD Plastics Company Limited ("China XD", "we", and the "Company", and "us" or "our" shall be interpreted accordingly) is one of the leading specialty chemical companies engaged in the research, development, manufacture and sale of modified plastics primarily for automotive applications in China and to a lesser extent, in Dubai, United Arab Emirates ("UAE"). Through our wholly-owned subsidiaries Heilongjiang Xinda Enterprise Group Company Limited ("Xinda Group") and ALComposites Materials FZE ("Dubai Composites"), we manufacture and sell polymer composite materials (a broader category including modified plastics), primarily for automotive applications. We develop our products using our proprietary technology through our wholly-owned research laboratory, Heilongjiang Xinda Enterprise Group Macromolecule Material Research Center Company Limited ("Xinda Group Material Research"). Xinda Group Material Research is a professional macromolecular material research and development institution and has 321 certifications from manufacturers in the automobile industry as of December 31, 2014. We are the only company certified as a National Enterprise Technology Center in modified plastics industry in Heilongjiang Province. Our research and development (the "R&D") team consists of 237 professionals and 8 consultants, including one consultant who is member of Chinese Academy of Engineering, and one consultant who is the former chief scientist of Specialty Plastics Engineering Institute of Jilin University. As a result of the combination of our academic and technological expertise, we have a portfolio of 193 patents, five of which we have obtained the patent rights and the remaining 188 of which we have applications pending in China as of December 31, 2014.

Modified plastics are produced by changing the physical and/or chemical characteristics of ordinary resin materials. In order for plastics to be used to produce automobile parts and components, they must satisfy certain physical criteria in terms of mechanical functionality, stability under light and heat, durability, flame resistance, and environmental friendliness. Our unique proprietary formulas and processing techniques enable us to produce low-cost high-quality modified plastic materials, which have been certified by many of the major domestic and international automobile manufacturers in China. In addition, we also provide specially engineered plastics and environment-friendly plastics for use in oilfield equipment, mining equipment, vessel propulsion systems and power station equipment.

China XD's primary end-market is the Chinese automotive industry that has been rapidly growing for the past few years where our modified plastics are used by our customers to fabricate the following auto components: exteriors (automobile bumpers, rearview and sideview mirrors, license plate parts), interiors (door panels, dashboard, steering wheel, glove compartment and safety belt components), and functional components (air conditioner casing, heating and ventilation casing, engine covers, and air ducts). Our specialized plastics are utilized in more than 27 automobile brands manufactured in China, including leading brands such as AUDI, Mercedes Benz, BMW, Toyota, Buick, Chevrolet, Mazda, and VW Passat, Golf, and Jetta. As of December 31, 2014, 321 of Xinda Group's automotive-specific modified plastic products have been certified by one or more of the automobile manufacturers in China and are in commercial production. As of December 31, 2014, 86 of our products were in the process of product certification by automobile manufacturers. In addition, during the year ended December 31, 2014, the Company developed its prescence in the Republic of Korea (the "ROK") by selling to a Korean customer primarily higher-end PA66 and plastic alloy, which embarked our entry into the international market.

We operate three manufacturing bases in Harbin, Heilongjiang in the People's Republic of China (the "PRC"). Prior to December 2012, we had approximately 255,000 metric tons of annual production capacity across 58 automatic production lines utilizing German twin-screw extruding systems, automatic weighing systems and Taiwan conveyer systems. In December 2012, we further expanded our third production base in Harbin with additional 135,000 metric tons of annual production capacity, bringing total installed production capacity in our three production bases to

390,000 metric tons with additional 30 new production lines. In December 2013, we broke ground on the construction of our fourth production base in Nanchong City, Sichuan Province, with additional 300,000 metric tons of annual production capacity, expecting to bring total installed production capacity to 690,000 metric tons with additional 70 new production lines at the completion of the construction of our fourth production base. In addition, during the three months ended June 30, 2014, we started the construction of Dubai Composites plant in Dubai, UAE with additional 4,000 metric tons targeting on high-end products for the overseas markets. The Company expects the Dubai facility to be completed in April 2015 and majority of Sichuan production facility to be completed around the end of 2015 and early 2016.

Our History

China XD, formerly known as NB Payphones Ltd. and NB Telecom, Inc., was originally incorporated under the laws of the state of Pennsylvania on November 16, 1999. On December 27, 2005, we migrated to the state of Nevada.

On December 24, 2008, we acquired Favor Sea Limited ("Favor Sea (BVI)"), a British Virgin Islands corporation, which is the holding company for Harbin Xinda Macromolecule Material Co., Ltd. ("Harbin Xinda") and Harbin Xinda's wholly-owned subsidiary, Harbin Xinda Macromolecule Material Research Institute ("Research Institute"). Harbin Xinda is a high-tech manufacturer and developer of modified plastics, which was established in September 2004 under the laws of the PRC. In December 2010, our management determined that the Research Institute could not meet the Company's development needs, including meeting the criteria to be a National Enterprise Technology Center. As a result, the Research Institute was deregistered.

On June 11, 2010, Harbin Xinda established Harbin Xinda Macromolecule Material Engineering Center Co., Ltd. ("Xinda Engineering Center") to focus on research and development of high-end products such as engineering plastics, modified PA, alloy plastics and modified ABS. Xinda Engineering Center was deregistered in 2012 as part of our group restructuring.

On October 14, 2010, Harbin Xinda established Heilongjiang Xinda Software Development Company Limited ("Xinda Software") to develop software applications that provide certain standard and programmable technical services remotely.

On December 10, 2010, Harbin Xinda established Harbin Xinda Macromolecule Material Research Center Co., Ltd. ("Xinda Macromolecule Research Center") to focus on research and development of products such as modified PP and environment-friendly modified plastics. Xinda Macromolecule Research Center was deregistered in 2012 as part of our group restructuring.

On March 31, 2011, Harbin Xinda established a wholly-owned subsidiary, Harbin Xinda Macromolecule Material Testing Technical Co., Ltd. ("Xinda Testing"), to develop a nationally recognized testing laboratory and provide testing services of macromolecule materials, engineering plastics and other products.

In response to our rapid business expansion and in order to be eligible for beneficial tax policies for certain regions in China, we developed a group restructuring plan.

From August 2011 to December of 2012, Harbin Xinda established (i) Harbin Meiyuan Enterprise Management Service Company Limited ("Meiyuan Training") in Harbin to provide all year round training to both our existing and new employees, accommodate our customers and business partners as well as host industry conferences; and (ii) Heilongjiang Xinda Enterprise Group Technology Center Company Limited ("Xinda Group Technology Center") in Harbin to focus on long-term research and development projects.

Xinda Group, a wholly-owned subsidiary of Xinda HK Company Limited and the proposed direct parent company of all of our PRC-based operating subsidiaries after the group restructuring was established in December 2011. Harbin Xinda Plastics Material Research Center Company Limited ("Xinda Material Research Center") was established in December 2011 to focus on research and development of products close to commercialization phase.

Xinda Group Material Research was established in December 2012.

During the year ended December 31, 2013, following the overall reorganization plan, the Company completed the deregistering of Haikou New Materials, Haikou Technical Center and Haikou Software and merged Xinda Testing and Xinda Material Research Center into Xinda Group Material Research in 2013, whose major functions included technical support for our production bases, research and development of modified plastic products for applications in areas such as automotive, high-speed rail, aircraft and others, customer post-sales support, and collaboration with industry leading universities and institutions.

On March 19, 2013, Xinda Group established Sichuan Xinda Enterprise Group Co., Ltd. ("Sichuan Xinda Group"), which subsequently established Sichuan Xinda Enterprise Group Meiyuan Training Center Co., Ltd. ("Sichuan Meiyuan"), Sichuan Xinda Enterprise Group Software Development Co., Ltd. ("Sichuan Software"), and Sichuan Xinda Enterprise Group Sales Co., Ltd ("Sichuan Sales") in April 2013, in order to expand our business in Southwest China.

On April 23, 3013, Xinda Holding (HK) Co, Ltd. ("Xinda Holding (HK)"), formerly known as Hong Kong Engineering Plastics Co., Ltd., set up Xinda (HK) International Trading Company Ltd ("Xinda (HK) Int'l Trading") for import and export business through Hong Kong.

On January 8, 2014, Xinda Holding (HK) set up AL Composites in Dubai, UAE ("Dubai Composites") for international expansion business.

On March 5, 2014, Xinda Holding (HK) set up Xinda (HK) Trade Co., Ltd ("Xinda Trading") for import and export business through Hong Kong.

On June 17, 2014, Xinda Holding (HK) set up Xinda (Heilongjiang) Investment Co., Ltd. ("Heilongjiang Investment") for its domestic investment activities in PRC.

On August 1, 2014, Heilongjiang Investment set up Nanchong Xinda Composite Materials Co., Ltd ("Nanchong Composite Materials") in order to expand our business in Southwest China and other regions in its proximity.

On November 12, 2014, Heilongjiang Investment set up Heilongjiang Xinda Meiyuan Tennis Club Co.,Ltd. ("Meiyuan Tennis Club") in order to replace the Meiyuan Training.

Corporate Structure

The corporate structure of the Company as of December 31, 2014 was as follows:

Our Industry

According to a research report prepared exclusively for the Company and issued by Frost & Sullivan in 2014, China is estimated to have consumed approximately 18.3 million Metric Tons ("MT") of modified plastic products in 2014, representing an increase of 11.5% compared to 2013. With China being the world's leading manufacturing center and with rising domestic individual consumption, we believe that demand for modified plastics from China will continue to increase in the foreseeable future. As shown in Figure 1, the market demand for modified plastics will reach 26.5 million MT in 2018, representing compound annual growth rates ("CAGR") of 9.6% and 14.9% by sales volume and revenues from 2014 to 2018. Currently, demand for our products is primarily driven by the Chinese automotive industry. In order for plastics to be used in automobile parts and components, they must satisfy specific physical criteria in terms of mechanical functionality, stability under light and heat, durability, flame resistance, and environmental friendliness. Modified plastics are usually found in interior materials, door panels, dashboards, mud flaps, chassis, bumpers, oil tanks, gas valves, grilles, unit heater shells, air conditioner shells, heat dissipating grids, wheel covers, and other components.

Figure 1: Analysis of Chinese Modified Plastics Market: Sales Volume and Revenue (China), 2009-2018E

Source: Frost & Sullivan

According to Frost & Sullivan's report, the Chinese automotive modified plastics market has experienced rapid development from 2009 to 2013, with nearly a three-fold growth in terms of revenue and sales volume during this period. The market demand is projected to reach 20.2 million MT in 2015. As illustrated in Figure 2, the Chinese automotive modified plastics market is expected to sustain rapid increase in terms of sales volume and revenues with CAGR of 14.8% and 20.3% from 2014 to 2018, respectively. Approximately 33.4% of the automotive modified plastic consumed in 2013 was imported from outside of the PRC or manufactured by multinational and joint venture companies. We believe that the demand for automotive modified plastic in China will grow continuously due to the fast growing Chinese automotive market, increasing use per unit of plastic content in automobiles and favorable government incentives and regulations. Moreover, domestic producers will likely gain larger market share from imports as they are able to manufacture products with comparable quality at highly competitive prices and close proximity to their customers. We believe that the following are the key drivers for the automotive modified plastic industry in China

Figure 2: Analysis of Chinese Automotive Modified Plastics Market: Sales Volume and Revenue (China), 2009-2018
Source: Frost & Sullivan

According to the statistics by the China Association of Automobile Manufacturers ("CAAM") in 2014, China's production volume of automobiles increased from 13.8 million units in 2009 to 22.1 million units in 2013. The market is expected to slow down after several years' rapid growth, though a comparatively high CAGR of 8.1% from 2014 to 2018, reaching 32.6 million units in 2018. China has exceeded the United States to become the world's largest auto market as measured by the number of automobiles sold. We believe the growth momentum in China's auto sales will remain strong over the next four years. The automotive industry in China is still in its infancy with passenger car ownership of 93 vehicles per 1,000 inhabitants in 2013, which is significantly below Europe's average of 497 and United States' average of 797 according to National Bureau of Statistics, US Department of Energy, Eurosta, Frost & Sullivan.

Figure 3: Overview of Chinese Macro Economy:

Vehicle Per 1,000 People Comparison (Units per 1,000 People), 2009-2018E

Source: National Bureau of Statistics, US Department of Energy, Eurosta, Frost and Sullivan

According to the National Bureau of Statistics, the total number of Chinese automobile parts has experienced a rapid growth because of the economic development and the incentive policies issued by the government. The number maintained a booming trend from 62.9 million units in 2009 to 126.8 million units in 2013, and is forecasted to hit a record of 146.8 million units in 2014 and 249.5 million units by 2018, with a CAGR of 14.2% between 2014 and 2018 as shown in Figure 4.

Figure 4: Overview of Chinese Macro Economy: Growth of Automotive Parts, 2009-2018E

Source: National Bureau of Statistics

Rising personal income in China is one of the key drivers for the rapid growth of the Chinese automobile industry. As shown in Figure 5, China has shown strong economic growth with its GDP increased from approximately RMB 34,090.3 billion in 2009 to RMB 58,667.3 billion in 2013, and is expected to sustain the steady growth from 2014 to 2018. Per Capita Consumption Expenditure of Urban Household also shows an optimistic picture with a total nominal increase of 46.8% between 2009 and 2013, and is forecasted to reach RMB 25,699.9 billions by the end of 2018. Moreover, cars have become more affordable in China as local or joint venture automobile manufacturers continuously expand their production to achieve economies of scale to lower production cost and source cheaper auto parts locally. Growing income and decreasing vehicle prices will continue to make car ownership more affordable for China's rising middle class.

Figure 5: Overview of Chinese Macro Economy: Growth of Nominal GDP and Per Capita Consumption Expenditure of Urban Household (China), 2009-2018E.

Source: National Bureau of Statistics, International Monetary Fund, and Frost & Sullivan

Benefit and Increasing Use of Plastics in Automobiles

(1) Cost Reduction: The primary demand driver for modified automotive plastics arises out of the cost-reduction characteristics evidenced by the plastics material inclusion in the automobile manufacturing process. Modified plastics can deliver the same performance as metallic materials at approximately a tenth of the cost. In addition, modified plastics can substitute some kinds of more expensive engineering plastics. This benefit of modified plastics will become more significant with the increasing competition in automobile manufacturing industry to improve efficiency and reduce costs.

(2) Vehicle Emissions Reduction: Plastic components impact fuel efficiency by saving approximately 2.5 liters of fuel per kilograms ("kg") used (equivalent to 6 kg of CO2 emissions) over the lifetime of the vehicle. Automobile manufacturers have been reducing vehicle weights in an attempt to reduce emissions and increase efficiencies. Modified plastics reduce the weight of components by 40% compared with traditional metallic materials.

(3) Performance and Safety Improvement: The development of advanced plastics applications lead to the improvement in performance through reducing the number and weight of the vehicle parts, causing the fuel consumption per vehicle to drop significantly. In addition, the lower net weight of the vehicles improves handling performance and thereby eliminates the likelihood of losing control in case of emergency stops. The involvement of modified plastics in automotive applications results in significant improvement of the safety features of the vehicle parts, like seat belts, air bags, and air bag containers in the recent years.

(4) New Applications: Plastics reduce the number of the required parts used in automobile manufacturing and introduce new design possibilities. Conventional materials struggle to compete against this open innovation platform associated with the plastics industry. In addition, the performance benefits associated with plastic materials continue to create a competitive advantage for the plastics industry.

(5) Increasing Use of Plastics per Vehicle: Weight of modified plastics per vehicle in China continually increased from 2008 to 2012, and is forecasted to reach 169.8 kg by the end of 2017, with a growth rate of 40.2% as shown in Figure 6. Although the weight of modified plastics per vehicle in China will still be less than that in North America and Europe, the highest growth rate indicates the huge potential for market growth. In 2012, plastic use in China is estimated to be about 128.6 kg per vehicle, whereas models imported from Europe contain on average as much as 219 kg per vehicle. In addition, the Chinese government's goals regarding electric and hybrid vehicles may also push the

market further as weight concerns are more important for these vehicles than for traditional passenger cars.

Figure 6: Comparison of Weight of Modified Plastics per Vehicle in China, North America, and Europe, 2008, 2012, 2017E

Source: Frost & Sullivan, American Chemistry Council's Plastics Industry Producers' Statistics Group

Increasing Substitution of Imports

Though China's automotive plastic market has been dominated by foreign or joint venture ("JV") companies, Chinese suppliers are continually gaining market share. It is estimated that automotive plastics imported and manufactured by multinational and JV companies accounted for 36.3% of the total China automotive plastic supply in 2013, decreasing from 53.8% in 2009 according to a report by Frost & Sullivan. Compared to foreign competitors including JV companies, local manufacturers can largely benefit from the lower cost and geographical convenience in China and their product sales can be customized with time-efficient after sales services and technical supports. As the local production capacity of both domestic and foreign companies has been expanding, share of imports and multiple national companies is expected to decrease to 23.4% by the end of 2018, while the share of domestic manufacturers is forecast to rise to 76.6% in 2018 as they expand at a greater rate than MNC and JV in China.

The financial crisis beginning in 2008 and the European debt crisis beginning in 2011 forced global automakers and suppliers to concentrate on their cost structure and pricing mechanisms. Many automakers accelerated cost reduction initiatives. Moving manufacturing operations to and sourcing raw materials from low cost regions have emerged as key measures to save costs. With its huge consumer market, low labor costs and high-quality manufacturing and logistics infrastructure, China is a location favored by global auto and component makers who source parts and components not only for their local operations in China but also for their global operations. As a result, we believe that China's local plastic suppliers will benefit from such global outsourcing trends and increasingly become a good substitute for expensive imported plastic products. JV manufacturers based in China in automotive plastics sector have been slow to invest and expand in China.

Favorable National Government Policies

In the past decade, the Chinese government has adopted a number of policies and initiatives intended to encourage the development of the Chinese modified plastics industry and stimulate the growth of the Chinese automobile industry.

Since 2000, modified plastics, including engineering plastics, have been categorized as a prioritized industrialization area by a series of government guidelines or development plans. Some of these policies include:

It was stated in the "Outline of China's Twelfth Five-year Plan (2011)" that new functional materials, advanced structural materials, common base materials, fiber of high performance and its compounded material are key development directions of new material industry.

It was stated in the "Catalogue for Guidance on Adjustment of Industrial Structure (2011)" promulgated by the National Development and Reform Commission on March 27, 2011, that the country is currently promoting the development of production equipment of polycarbonate by the use of non-phosgene method, with annual output of 60000t/year and above, production of engineering plastic including liquid crystalline polymer (LCP) and development and application of bleeding modification and alloying; development and production of water – absorbed resin, conductible resin and biodegradable polymers; development and production of new polyamide including nylon 11, nylon 1414 and nylon 46, nylon with long carbon chain and heat resistant nylon.

It was stated in the "Guidance on Key Areas of Industrialization of High Technology with Current Priority in Development (2011)" jointly promulgated by the National Development and Reform Commission, the Ministry of Science and Technology, the Ministry of Commerce and the State Intellectual Property Office on June 23, 2011 that modified technologies applied to general plastics, including new engineering plastics and plastic alloy, new special engineering plastics, fire resistant modified plastics, and modified technology of general plastics, are currently prioritized areas to develop and industrialize in China's macromolecule materials sector.

A series of modified plastics technologies have been listed in the "National Support for Key High-tech Fields" as stated in the Circular on the Issuance of the Administrative Measure for the Recognition of High-tech Enterprise jointly promulgated by the Ministry of Science and Technology, Ministry of Finance, the State Administration of Taxation in April 2008. These technologies include special engineering plastics, macromolecular compound or new synthetic modified, etc.

Determining the detailed standards for average fuel consumption for passenger car manufacturers: 1) In 2015 average fuel consumption for passenger car reach 0.069L per kilometer; 2) In 2020 average fuel consumption for passenger car reach 0.05L per kilometer. It will accelerate the automobile lightweight progress.

In addition, with the Chinese government strongly encouraging the production of more fuel-efficient and environmentally friendly vehicles, as one means to help resolve the nation's worsening air pollution problem, especially in big cities, opportunities abound for suppliers of plastics materials and auto components.

We believe that the above government measures and programs will continue to accelerate the demand for automotive modified plastics in China.

Tightening Trend and Local Government Policies

Despite the favorable national government policies as set forth above, in the past couple of years, the Chinese government has implemented certain measures to control the pace of economic growth and discontinued certain stimulus measures implemented to deal with the recent global financial crisis, including incentives for consumers to purchase automobiles.

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Since 2011, in order to resolve the extreme traffic congestion, Beijing government has been implementing a vehicle purchase quota policy, which limits the maximum vehicles sold in Beijing per month to 20,000. Other cities which have begun to show signs of traffic congestion have also begun to implement similar measures to control traffic congestion, including the limited automobile licenses policy implemented in Shanghai and Tianjin and the imposition of congestion charges in Shenzhen. The termination of nation-wide preferential policies can negatively affect consumer demand for new vehicles, and local restrictive measures over automobile purchases in major cities may result in the reduction in the sale of vehicles nationwide.

Our Products

Modified plastic is processed by adding chemical agents to basic plastics to generate or improve certain physical and/or chemical characteristics of plastic, such as heat resistance, hardness, tensile strength, wear resistance, and flame resistance. Based on the type of materials, our products include eleven categories: Modified Polypropylene (PP), Modified Acrylonitrile Butadiene Styrene (ABS), Modified Polyamide 66 (PA66), Modified Polyamide 6 (PA6), Modified Polyoxymethylenes (POM), Modified Polyphenylene Oxide (PPO), Plastic Alloy, Modified Polyphenylene Sulfide (PPS), Modified Polyimide (PI), Modified Polylactic Acid (PLA) and Polyether Ether Ketone (PEEK).

Our products are organized into eleven product groups, based on their physical characteristics, as set forth below:

Product Group	Number of Products Certified	Characteristics	Automotive or Other Application
Modified Polyamide 66 (PA66)	30	Abrasive resistance, self-lubrication, high strength, high temperature resistance, and flame resistance	Roof handles, door knobs, transmission connection plates, fan shrouds, glovebox assembles, engine hoods, stents baffle blocks, trajectory, fasteners, etc.
Modified Polyamide 6 (PA6)	28	High temperature resistance, weather resistance, high strength	Inner door knobs, door knobs, hand shanks, transmission connection plates, visor bases, etc.
Plastic Alloy	85	High impact resistance, high temperature resistance, flame resistance, platable	instrument panels, instrument frames, shields, automotive center stacks, speaker covers, grids, fog light shells, battery bases, seat armrests, luggage holders, etc.
Modified Polypropylene (PP)	154	Non-toxic, odorless, low density, insulated, and low moisture uptake	Instrument panels, inner panels, columns, bumpers, air conditioner shells, door knobs, mudguards, etc.
Modified Acrylonitrile butadiene styrene (ABS)	21	High rigidity, low density, rigidity toughness balance, slow burn, and corrosion resistance	Heat dissipating grids, steering wheel shells, cup holders, seal banks, instrument panels, inner door knobs, wheel covers, etc.
Polyoxymethylenes (POM)	1	High strength, low moisture uptake, size stability, high glass, high temperature resistance, fatigue resistance	Heater fans, signal lamps switches, gas reseior covers, door knobs, hand shanks, fuel pumps, dynamic valves, accelerator pedals, rampetior elements, etc.

Polyphenylene Oxide (PPO)	1	High rigidity, flame retardant, abrasive resistance, pollution resistance, high temperature resistance	Battery plants, lamp holder insulation parts, anti freezer grids, booms, instrument panels, window frames, tool cabinet covers, handwheel boxes, heater holders, heater baffles, cooling system connections, pump strainer nets, ammeler frameworks, reaview, etc.
Modified Polyphenylene Sulfide (PPS)	1	High temperature resistance, corrosion resistance, radiation resistance, flame resistance, size stability	Air bleed control valves, pneumatic signal conditioners, sparks plug wire insulation covers, tachometer sensor covers, electrical pumps, fuel pump impellers and covers, air cylinder covers, water pump impellers, etc.
Modified Polylactic Acid (PLA)	-	Reproducible, good biological compatibility and totally degraded	Glove box handle, seat cover, rearview mirror shell, etc.
Modified Polyimide (PI)	-	Flame resistance, high strength, high temperature resistance, corrosion resistance	Compressor blade, piston ring, sealing washer, bushing, gear, brake block, etc.
PEEK*	N/A	Excellent mechanical and chemical resistance and temperature tolerance	Used in communications and transport electronics and electrical appliances, machiery, medical and analytical equipment
Total	321		

*PEEK is primarily used in applications that are unrelated to automotive applications, which does not require certifications and is in the product development stage.

Raw Materials

The principal raw materials used for the production of our modified plastic products are plastic resins such as polypropylene, ABS and nylon. Polypropylene is a chemical compound manufactured from petroleum. ABS is a common thermoplastic used to make light, rigid, molded products such as automotive body parts and wheel covers. Nylon is a thermoplastic silky material. Approximately 64.7% of our total raw materials purchased by volume are sourced from overseas petrochemical enterprises and 35.3% from domestic petrochemical enterprises during the year ended December 31, 2014.

The Company has one-year renewable contracts with its major suppliers, which are distributors of petrochemical enterprises. Because the raw materials used in our products are primarily petroleum products, the rise in oil prices directly affects the cost of the raw materials. We attempt to mitigate the increase in our raw materials prices by appropriately raising the price for our products to pass the cost to our customers as part of our pricing policy.

Because raw materials constitute a substantial part of the cost of our products, we seek to reduce costs by dealing with major suppliers. During the year ended December 31, 2014, the Company purchased approximately 88% of the Company's raw materials from eight major suppliers. By dealing in large quantities with these major suppliers, we obtain reduced prices for raw materials, therefore reducing the cost of our products. If we were unable to purchase from these suppliers, we believe we would still have adequate sources of raw materials from other petrochemical distributors without material impact on the cost of our products.

Research and Development

Xinda Material Research Center and Xinda Group were organized to provide us with ongoing additions to our technology through advanced development methods, which represent the key to our competitive strength and success. Our goal is to utilize our state-of-the-art methods, equipment and our technical expertise to produce plastics of the highest quality that are cost-efficient for our customers. Toward this end, we have staffed Xinda Material Research Center and Xinda Group with 40 employees who have Ph.D. and Master's degrees, 183 employees who have Bachelor's degrees, and 14 employees with Associate Bachelor's degrees. In addition, we have 8 consultants, including one consultant who is a member of the Chinese Academy of Engineering, and one consultant who is the former chief scientist of Specialty Plastics Engineering Institute of Jilin University. On average, our employees have been working in our industry for more than three years, and our key R&D employees have on average more than 10 years of experience in our industry.

As aforementioned, Xinda Group Material Research assumed the functions of Xinda Material Research Center and Xinda Group Technology Center as part of our group restructuring. To supplement the efforts of our Xinda Group Material Research, we have cooperated with a number of the leading technology institutions in China. Besides providing specialized research and development skills, these relationships help us formulate cutting-edge research programs aimed at developing new technologies and applications in plastics engineering.

In addition, Dubai Composites focuses on more advanced research and development in high-end applications relative to our research and development efforts in China.

All our significant research and development activities are overseen by the members of our Scientific Advisory Board, which we have assembled from the leaders in China's chemical engineering industry. Currently, the members of the Scientific Advisory Board are:

Qingquan Lei: Member of Chinese Academy of Engineering, Post-PhD Advisor of Harbin Institute of Technology.
Xiabin Jing: Post-PhD Advisor and Researcher of Changchun Institute of Applied Chemistry of the Chinese Academy of Sciences.
Huixuan Zhang: Principal of Changchun University of Technology..

Zhenhua Jiang: Director of the Engineering Research Center of the Special Plastics Engineering Education Department of Jilin University..
Xijun Liu: Dean of Postgradate School of Qiqihaer University
Aimin Zhang: Professor of the State Key Laboratory of Polymer Materials Engineering Polymer Research Institute of Sichuan University
Pengcheng Xie: Associate Professor of Polymer Advanced Processing (En-learn) Laboratory of Beijing University of Chemical Technology
Chao Bi: Associate Professor of School of Mechanical and Electrical Engineering of Beijing University of Chemical Technology.

We host our annual seminar on the Development of the Macromolecule Materials Industry since 2008, during which we bring prominent industry-leading consultants to meet with our R&D staff. The annual seminar gives industry experts an opportunity to review and evaluate the Company's R&D initiatives in terms of technology advancement on the backdrop of government policies which support development of the modified plastics industry. During the seminar, industry experts assess the progress of the Company's R&D projects for the current year, and then evaluate the Company's R&D projects for the next year. Projects are reviewed in terms of overall strategy, alignment with government policies, market opportunities, efficient utilization of R&D and technical feasibility.

Xinda Group and Xinda Group Material Research are located within the same facility of our Jiangnan Zhonghuan Road production base. Xinda Group Material Research provides technical support for our recently expanded modified plastics annual nameplate production capacity of 390,000 MT and ongoing service to our customers, and enhanced our research and development capabilities for modified plastics in new applications in areas such as aerospace, high-speed rail and new energy vehicles. We have been certified as a National Level Enterprise Technology Center, the only institution certified as such in the modified plastics industry in Heilongjiang. This certification makes us eligible for participation of issuing modified plastics industry standards, certain tax and tariff relief for scientific research and development, certain funding designated for National Enterprise Technology Center and municipal subsidies and Post-PhD and Academy Member WorkStation in Heilongjiang Province.

Our research and development expenses were US$29,434,680, US$21,258,549 and US$21,586,074 during the years ended December 31, 2014, 2013 and 2012, respectively.

Intellectual Property

Patents

As a result of our collection of academic and technological expertise, we have five approved patents and 188 pending patent applications in China, as set forth in the following table.

No	Patent Name	Application No.	Application Date and Status	
1	A sprayed directly material used in car bumper	200810051570.8	December 10, 2008	Approved
2	Supercritical fluid rapid diffusion synthesis of nano calcium carbonate enhanced microcrystalline polypropylene composites	200910073402.3	December 11, 2009	Approved
3	A method for automotive interior low odor, low VOC, high performance polypropylene composites	201010258937.0	August 20, 2010	Approved
4	A high heat-resistant PC / ASA alloy material and its preparation method	201010508149.2	October 15, 2010	Approved
5	A rapid detection method of the tensile property of modified PP used in auto specially by non-standard situation	201110094454.6	April 15, 2011	Approved
6	A molding method suitable PEEK	201010173663.5	May 17, 2010	Pending
7	A method for automotive interior matte, anti-scratch modified polypropylene composites	201010230064.2	July 19, 2010	Pending
8	A high notched impact PA / ASA alloy material and its preparation method	201010230061.9	July 19, 2010	Pending
9	A lower mold shrinkage ratio method of calcium carbonate / polypropylene nano-composites	201010230088.8	July 19, 2010	Pending
10	Nano-ZnO filled with modified PEEK film and its preparation method	201010258955.9	August 20, 2010	Pending

11	A high impact and high flow PC / ASA alloy material and its preparation method	201010258950.6	August 20, 2010	Pending
12	A preparation method of $SiO_2/CaCO_3$ nano-composite particles modified polypropylene	201010282042.0	September 15, 2010	Pending
13	An anti-aging, anti-yellowing, low odor polypropylene composite material and its preparation method	201010508177.4	October 15, 2010	Pending

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14	An alloy material of high-impact, high-brightness ASA	201010543439.0	November 15, 2010	Pending
15	A preparation method of polymer composites with high toughness	201110035736.9	February 11, 2011	Pending
16	A preparation method of polylactic acid used in auto dashboard	201110035716.1	February 11, 2011	Pending
17	A preparation method of the thermoplastic elastomers PP with high mobility and high resistance of deformation	201110035725.0	February 11, 2011	Pending
18	A preparation process of high weathering colour ASA resin	201110347336.1	February 11, 2011	Pending
19	A special material of cooling grille with high heat resistance and high weather resistance	201110094466.9	April 15, 2011	Pending
20	A preparation process of centralized control method used in plastic production line	201110122566.8	May 12, 2011	Pending
21	A preparation process of ABS alloy with high impact performance and high heat resistance	201110122586.5	May 12, 2011	Pending
22	A rapid detection method of the impact property of modified plastics used in automobile specially	201110158528.8	June 14, 2011	Pending
23	A preparation process of the premixed screening system	201110158488.7	June 14, 2011	Pending
24	A preparation method of high heat-resistant and high rigid PLA composite material reinforced by fully biodegradable natural fiber	201110158512.7	June 14, 2011	Pending
25	A preparation method of easily dispersed and easily processing polyprolene composite material	201110158511.2	June 14, 2011	Pending
26	A high-powered aircraft tail composite material and its preparation process	201110196209.6	July 13, 2011	Pending
27	A high impact PA6 composite material with core-shell toughening and its preparation method	201110196226.X	July 13, 2011	Pending
28	A preparation method of polypropylene resin foam particles with supercritical CO_2 act	201110230302.4	August 12, 2011	Pending
29	A preparation method of the plastic production line with high performance and high homogeneity	201110233488.9	August 16, 2011	Pending
30		201110235189.9		Pending

	A high toughness, low warpage and high-mobility PET/PBT/PC alloy reinforced by glass fiber and its preparation method		August 17, 2011	
31	A high impact and high heat-resistant flame retardant ABS composite material reinforced by glass fiber and its preparation process	201110268625.2	September 13, 2011	Pending
32	A preparation method of polylactic acid used composite material modified by hydroxyapatite with supercritical water act	201110268687.3	September 13, 2011	Pending
33	A high heat-resistant and high wear-resistant PEEX composite material and its preparation process	201110347338.0	November 7, 2011	Pending

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34	A high toughness, low warpage and low mold temperature PET/PA6 alloy reinforced by glass fiber and preparation method	201110347339.5	November 7, 2011	Pending
35	A polypropylene composite material used in battery tank of new source of energy automobile and its preparation method	201110347320.0	November 7, 2011	Pending
36	A preparation method of glass fiber reinforced polyether ether ketone with high strength and high heat resistance	201110399890.4	December 6, 2011	Pending
37	A high toughness of polycarbonate blends material and its preparation method	201110319832.6	December 20, 2011	Pending
38	A high-strength carbon fiber reinforced polyetherether ketone composite material and its preparation method	201210114931.5	April 20, 2012	Pending
39	A high-impact, green flame retardant PC / ABS alloy material and its preparation process	201210122281.9	April 25, 2012	Pending
40	A preparation method for heat-resistant and easy processing of natural fiber reinforced polylactic acid composites	201210147444.9	May 14, 2012	Pending
41	High performance halogen-free flame-retardant PC / ABS composite material and its preparation method	201210201826.5	June 19, 2012	Pending
42	A high temperature conductive PPO/PA6 alloy material and its preparation method	201210241856.9	July 13, 2012	Pending
43	High-performance, green flame retardant reinforced PA66 composites technology	201210260160.0	July 26, 2012	Pending
44	An antistatic LSOH flame retardant PC / ABS alloy material and its preparation method	201210296750.9	August 20, 2012	Pending
45	A preparation method of high encapsulation efficiency and stable release polylactic lysozyme drug microsphere	201210295154.9	August 20, 2012	Pending
46	A supercritical carbon dioxide reactor pressure method for preparing polypropylene foamed material	201210298694.2	August 22, 2012	Pending
47	An antimicrobial, dust suppression, halogen-free flame retardant ABS and its preparation process	201210305824.0	August 27, 2012	Pending
48	A free primer and sprayed directly on the bumper composites	201210306240.5	August 27, 2012	Pending
49	An extrusion grade sisal fiber reinforced polypropylene composite material and its preparation process	201210357867.3	September 25, 2012	Pending

50	A preparation methods of ultra-hydrophobic microporous polymer film	201210358122.9	September 25, 2012	Pending
51	A long glass fiber reinforced polypropylene material and its preparation method	201210362626.8	September 26, 2012	Pending
52	A flame-retardant glass fiber reinforced PA66 and its preparation method	201210370558.X	September 29, 2012	Pending

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53	A modified Kevlar fiber reinforced PA66 material and its preparation method	201210369747.5	September 29, 2012	Pending
54	The chest protected belts	201220526299.0	October 15, 2012	Pending
55	A high toughness wear-resistant fiberglass /PA6 composites for rail transit fasteners	201210396122.8	October 18, 2012	Pending
56	A non-asbestos and non-metal materials brake pads composite material and its preparation method	201210395921.3	October 18, 2012	Pending
57	A high impact, high heat-resistant PC / PBT alloy material and its preparation process	201210403095.2	October 22, 2012	Pending
58	A wear-resistant, anti-static, flame retardant ultra-high molecular weight polyethylene composite material	201210402814.9	October 22, 2012	Pending
59	A glass fiber reinforced poly (ethylene terephthalate) / polycarbonate alloy	201210403197.4	October 22, 2012	Pending
60	A production method of antimicrobial, hydrophilic polypropylene particle	201210411680.7	October 25, 2012	Pending
61	Graphene / polymer conductive composites	201210411231.2	October 25, 2012	Pending
62	A continuous aramid fiber reinforced POM materials and preparation methods	201210411967.X	October 25, 2012	Pending
63	A glass fiber, SiO_2 enhanced toughening polyphenylene sulfide material and its preparation method	201210439116.6	November 7, 2012	Pending
64	An alcohol solution PA66 material special for intake manifold and its preparation method	201210442251.6	November 8, 2012	Pending
65	An environmentally friendly self- aromatic polypropylene material and its preparation process	201210457403.X	November 15, 2012	Pending
66	A multilayer hot pressing method for preparing hydroxyapatite / polylactide composite	201210474211.X	November 21, 2012	Pending
67	A mechanical strength polypropylene power lithium battery separator and its preparation method	201210472283.0	November 21, 2012	Pending
68	An ramie fiber reinforced polypropylene composite material and its preparation process	201310185514.4	May 20, 2013	Pending

69	An environmentally friendly foam polypropylene material and preparation method	201310185228.8	May 20, 2013	Pending
70	Preparation of a glass fiber reinforced nylon 66 / nylon 6 Composites	201310185041.8	May 20, 2013	Pending
71	A high mobility of polyvinyl alcohol / lignin WPC	201310203047.3	May 28, 2013	Pending
72	A polypropylene self-luminous material and preparation method	201310250047.9	June 24, 2013	Pending
73	A low-cost method for preparing hydrophobic material of polypropylene	201310250185.7	June 24, 2013	Pending
74	Preparing a polyamide material reinforced with continuous glass fibers	201310250967.0	June 24, 2013	Pending

75	One kind of resistance to warpage reinforced polyamide 6 material and preparation method	201310250426.8	June 24, 2013	Pending
76	One kind of aramid pulp-reinforced PA66 composite material and preparation method	201310367404.X	August 22, 2013	Pending
77	A PPO/PA6 alloy material applied to electrostatic spraying and its preparation method	201310367459.0	August 22, 2013	Pending
78	A preparation method of reinforced, flame-retardant ABS material	201310367420.9	August 22, 2013	Pending
79	One kind of anti-alcohol solution, low warpage reinforced nylon66 composite material and preparation method	201310372282.3	August 24, 2013	Pending
80	Preparation of a high-performance fiber-reinforced polyphenylene sulfide composites	201310372289.5	August 24, 2013	Pending
81	A high-gloss, free paint, scratch-resistant alloy material and preparation method	201310372789.9	August 26, 2013	Pending
82	An anti-oxidation, high flow, flame retardant ABS and preparation process	201310413270.0	September 22, 2013	Pending
83	A preparation process of heat-stable flame retardant reinforced nylon composite material	201310413691.3	September 22, 2013	Pending
84	An antistatic, low smoke, flame retardant PC / ABS alloy materials and preparing process	201310414847.X	September 22, 2013	Pending
85	A no-spray, high durability, scratch-resistant, flame retardant ABS Preparation and Process	201310414024.7	September 24, 2013	Pending
86	A Preparation of applying to charging pile casing PC / ABS alloy compound	201310414007.3	September 24, 2013	Pending
87	An flax noil fiber reinforced polypropylene composite material and its preparation process	201310413287.6	September 24, 2013	Pending
88	An environmentally friendly fire-retardant, high-performance EVA composite material and preparation method	201310467812.2	October 10, 2013	Pending
89	A free spray paint bumper with modified material and preparation method	201310468057.X	October 10, 2013	Pending
90	A method for preparing low temperature resistance, scratch-resistant zipper jacket compound for cars	201310468076.2	October 10, 2013	Pending
91	Preparation method of impact-resistant strain of modified polylactic acid material	201310468059.9	October 10, 2013	Pending

92	A MARINE with wear-resistant ultra high molecular weight polyethylene composites	201310468060.1	October 10, 2013	Pending
93	A method for preparing an enhanced flame retardant rigid polyurethane composites	201310467797.1	October 10, 2013	Pending
94	A direct line of long glass fiber reinforced thermoplastic composite material and its preparation method	201010471859.6	October 12, 2013	Pending

95	A highly weather-resistant polypropylene self-luminous material and preparation method	201310555483.7	November 12, 2013	Pending
96	Preparation of a high strength of continuous glass fiber reinforced nylon 6 material	201310555451.7	November 12, 2013	Pending
97	Preparation of an aircraft engine surrounding high temperature polyimide composites	201310555389.1	November 12, 2013	Pending
98	A high resistance temperature reinforced polyamide 6 material and preparation method	201310556569.1	November 12, 2013	Pending
99	A toughening wear-resistant alloy material and preparation method	201310556261.7	November 12, 2013	Pending
100	A silicone toughening polyphenylene sulfide material and its preparation method	201310560625.9	November 13, 2013	Pending
101	Method for preparing porous polymer composite superhydrophobic films	201310559589.4	November 13, 2013	Pending
102	An alloy NiMoB modified talc enhanced Bumper material and its preparation method	201310559588.X	November 13, 2013	Pending
103	One kind of aramid fiber / polyimide composite material and preparation method	201310559294.7	November 13, 2013	Pending
104	A polypropylene foam material and preparation method	201310559024.6	November 13, 2013	Pending
105	A high-gloss, avoid spraying PTT / PMMA rearview mirror Compound and its production process	201310652729.2	December 6, 2013	Pending
106	A high toughness, wear-resistant rail fasteners with glass / nylon 6 Composites	201310646768.1	December 6, 2013	Pending
107	A keyboard and mouse with anti-bacterial perspiration modified plastics and its preparation method	201310676101.6	December 13, 2013	Pending
108	A high-strength lightweight hollow glass microspheres toughening PP material and preparation method	201310721731.0	December 25, 2013	Pending
109	a method for producing a heatproof polyimide composite used for aircraft engine periphery	201410144739.X	April 12, 2014	Pending
110	Preparation method of a special fiber reinforced skis	201410144740.2	April 12, 2014	Pending
111	The preparation method of a kind of special fiber cable oil and gas exploration	201410146070.8	April 29, 2014	Pending

112	Preparation method of a glass fiber reinforced polylactic acid base composite material	201410145388.4	May 6, 2014	Pending
113	A 2D carbon fiber heating cloth	201410144738.5	May 7, 2014	Pending
114	A kind of thermoplastic carbon fiber prepreg and its preparation method.	201410145300.9	May 7, 2014	Pending
115	A method for preparing super toughened polylactic acid base composite material	201410145345.6	May 9, 2014	Pending
116	A thermosetting carbon fiber prepreg and its preparation method	201410205668.X	May 16, 2014	Pending

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117	A high toughness flame retardant PLA/PC alloy	201410206092.9	May 16, 2014	Pending
118	Oil and gas exploration prepared by weaving method of special fiber cable	201410205870.2	May 16, 2014	Pending
119	A method for producing a heatproof polyimide composite	201410205669.4	May 16, 2014	Pending
120	Preparation method of PBO fiber reinforced skis	201410205670.7	May 16, 2014	Pending
121	The preparation method of a high-strength PEEK composites	201410262746.X	June 13, 2014	Pending
122	A high dimensional stability, excellent abrasion resistance PEEK valve composite	201410262638.2	June 13, 2014	Pending
123	An advantage of specially coupling treated carbon fibers reinforced PEEK	201410262651.8	June 13, 2014	Pending
124	High thermal conductivity high heat resistance carbon fiber heating cloth	201410262691.2	June 13, 2014	Pending
125	Preparation of low temperature resistance special fiber reinforced skis	201410262850.9	June 14, 2014	Pending
126	A method for preparing high performance PEEK/long glass fiber composites	201410263606.4	June 16, 2014	Pending
127	The preparation method of a kind of long glass fiber reinforced polypropylene	201410264159.4	June 16, 2014	Pending
128	A preparation method of jute fiber reinforced polypropylene	201410326831.8	July 10, 2014	Pending
129	Preparation of one kind of ultra light and thin fiber reinforced skids	201410326799.3	July 10, 2014	Pending
130	A kind of high thermal conductive composite fiber cloth	201410326610.0	July 10, 2014	Pending
131	Preparation of a high tensile strength of PEEK composites	201410326616.8	July 10, 2014	Pending
132	Preparation of Carbon Fiber Reinforced PI Composite Material	201410326641.6	July 10, 2014	Pending
133	A method for producing a polyimide composite	201410326840.7	July 10, 2014	Pending
134	A toughening polylactic and acid and its preparation method	201410362495.2	July 29, 2014	Pending
135	The preparation method of large tow carbon fiber cable	201410363355.7	July 29, 2014	Pending
136	The preparation method of glass fiber reinforced polypropylene	201410365812.6	July 29, 2014	Pending
137	A preparation method of PEAK modified epoxyresin system/carbon fiber cable	201410413361.9	August 21, 2014	Pending

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138	A preparation method of high transparent heat-proof polylactic acid based composite material	201410413616.1	August 21, 2014	Pending
139	A high-heat-resistant, excellent in abrasion resistance sheet composite PEEK valve	201410413379.9	August 21, 2014	Pending
140	The preparation of a high-strength ,high-temperature polyimide composites	201410413832.6	August 21, 2014	Pending
141	Toughened prepreg of carbon fiber and its preparation method	201410418312.4	August 25, 2014	Pending
142	A preparation method of polylactic acid/starch composite foams	201410489544.9	September 22, 2014	Pending
143	Preparation of PI composite material by coupling agent treated glass fiber	201410481809.0	September 22, 2014	Pending
144	New type of composite carbon fiber heating cloth	201410481306.3	September 24, 2014	Pending
145	A preparation of antibacterial polylactic acid fiber	201410691901.X	November 27, 2014	Pending
146	A preparation method of high toughness biodegradable polylactic acid foam plastics	201410691587.5	November 27, 2014	Pending

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