

Scholar's Advanced Technological System

- Chapter 596 - Fusion Battery Project

Chapter 596: Fusion Battery Project

Twenty minutes later.

The car parked outside the Jinling Institute for Advanced Study entrance.

Sheng Xianfu arrived at the same time as Lu Zhou, who had just got down from the car.

When he saw Lu Zhou, he walked over to him.

“What a coincidence, I was about to give you a phone call.”

“Thank God you didn’t call me, I’ve been on the phone non-stop.” Lu Zhou smiled and said, “How have you been?”

“I’ve been alright, just a bit too bored. I don’t like being bored. I’ve been working hard my entire life.” Sheng Xianfu jokingly said, “What do you think? I’m pretty loyal, right? As soon as I heard that you wanted me to come, I left my director job and immediately came over to you. Since I’m so loyal to you, can you tell me what the project is?”

Lu Zhou paused for a second and looked at him with a surprised expression. He asked, “The State Administration for National Defense did not tell you what the project is?”

Sheng Xianfu shook his head.

“The person who talked to me told me it’s a secret, he didn’t tell me the specifics.”

“Is it that serious?” Lu Zhou smiled and cleared his throat. He said, “Oh well, it’s fine. The reason you came here today is so that we can talk about the project. Come with me.”

The two men passed through the main entrance of the Institute for Advanced Study and arrived at the Institute of Physics. They walked through the corridor and walked into a conference room.

There were already ten other people in the conference room.

Also, there was a whiteboard with a plastic cloth covering it, which would probably be used for the conference.

Sheng Xianfu briefly looked at the people sitting in the conference room.

He recognized some of them, like Professor Li Changxia from Yuhua University and Academician Li Jiangang from the Lu Yang Physics department. There were also people who he didn't know personally but had heard of.

For example, the white-haired old man who was wearing a wool vest, he was Academician Yu Jiannan, from the fluid physics department at the Institute of Physics of the Chinese Academy of Sciences.

His name was on the list of designers for the "Julong No.1" laser ignition device that the people from the Chinese Academy of Sciences had built.

Compared to the Sheng Guang fusion ignition device, the Julong No.1 was far superior in terms of performance and nuclear technology. It contained 1,440 pulse capacitors, 720 field-distortion switches, 24 laser-triggered gas switches, and 12 high-performance lasers. This was on the level of the United States' National Ignition Facility machine.

Nowadays, laser ignition and inertial confinement fusion had been heavily used by the military. Julong No.1, which was built by the Shengguang fusion ignition team, was well aware of this. They designed the machine for nuclear weapons testing. And whether it was the miniaturization of laser ignition or the integration of laser arrays, this machine was cutting-edge technology.

Sheng Xianfu had only heard of this old man's name, he never expected a chance to see him.

There were also some strangers who he didn't know or heard of before. However, since they were sitting here, they obviously weren't common people, they were probably just not in the field of plasma physics and controllable fusion engineering.

Sheng Xianfu couldn't help but feel emotional.

Being elected as an academician came with a certain amount of prestige in academia, and his status far exceeded that of normal scholars.

In any type of research institute, academicians were the leaders. Research groups were also led by academicians. The highest level of scholars were the people in the Changjiang Scholars Program, then came the top researchers, then came the middle-level researchers, the noob researchers, then the master's students, and even the undergraduate students.

This team, however, only consisted of academicians.

Other than Professor Lu, there weren't many people in China that had the power to form such a team...

When Sheng Xianfu remembered that he had actually hesitated to join this project, he was embarrassed of himself.

Even if no one would blame him for not joining the project, he would be the one to receive the losses.

After all, this kind of opportunity was once in a lifetime.

If he firmly grasped this opportunity, it would greatly benefit his career as well as increase his chances of becoming an academician.

Lu Zhou looked at the people sitting in the room and smiled, "Apologies for making everyone wait, I just came from campus."

Academician Li Jiangang smiled and said, "It's fine, we've only just arrived. Let's skip the small talk, we have no idea why we're suddenly being summoned here. We don't even know what the project is, let's start talking about the project first."

Lu Zhou smiled and said, "Okay then, I won't waste anyone's time with small talk."

Lu Zhou composed himself and walked toward the whiteboard in the conference room. He then reached out and took off the plastic cover.

The moment he took it off, at least half of the people in the conference room were stunned, while the other half were expressionless.

Sheng Xianfu, who didn't know anything about the project, was stunned.

However, he wasn't only just shocked.

He was amazed as well...

"This is..."

Sheng Xianfu's voice was trembling as he looked at the whiteboard with disbelief. He opened his mouth but words couldn't come out.

"The miniaturization of fusion reactors, or fusion batteries." Lu Zhou looked at him and smiled. He then said cheerfully, "They're the same thing anyway."

Lu Zhou didn't care about everyone's surprise. He cleared his throat and continued, "I have already calculated the technical feasibility of the miniaturization of controllable fusion technology. I will send you guys the relevant theses. Of course, in a few days, you will get to read it in the Journal of Nuclear Physics. So, I won't go into details here.

"The reason I invited everyone over is mainly to have a simple meeting and assign everyone their research tasks."

Lu Zhou pointed at the whiteboard with a laser pointer and continued, "This road map on the whiteboard is the general research plan of the entire project. The content might be slightly abstract, but I think it is quite comprehensive. If you can't understand it, feel free to ask me."

Sheng Xianfu, who had just recovered from his initial shock, raised his hand and said, "I have a question..."

Lu Zhou: "Please go ahead."

Sheng Xianfu carefully looked at the road map on the whiteboard and frowned. He asked, "Why is it inertial confinement fusion? We are more experienced in magnetic confinement."

"Good question." Lu Zhou smiled and said, "The reason why magnetic confinement isn't chosen, is because the magnetic field overflow will interfere with the operations of the precision components in the aircraft. The second reason is that magnetic confinement requires a much larger space.

“We can’t put a thousand square meter superconducting magnet on the plasma engine. It’s not realistic, and it’s not necessary.

“In terms of maintaining the fusion reaction, we will use fast ignition. We do not need to keep the fusion reaction stable for a long time. We only need the reaction to happen quickly.”

Li Jiangang frowned and said, “Fast ignition? Ignoring the advantages and disadvantages of magnetic confinement and inertial confinement fusion, if the liquid lithium neutron recovery system is removed, how do you plan on offsetting the neutron beam radiation damage?”

“I will talk about this later.”

Lu Zhou paused for a second before he continued, “The design of the nuclear battery can be roughly divided into three sections. The first section is the nuclear core and fuel component. I will be responsible for solving this section. The second section is the power generator connected to the core. I will hand this part over to the team at China National Nuclear Corporation.”

Academician Wang Zengguang: “Are we using a ferrofluid electric energy generator?”

Lu Zhou shook his head and said, “Uncertain. It depends on what the reactor is, and what it needs.”

He paused for a second before continuing, “As for the third section, this is the fusion ignition device for the reactor. Since we are planning on using inertial confinement fusion and fast ignition, I personally prefer using laser ignition as the heating device. Of course, we can’t rule out the possibility of microwave heating.

“The research in this section is very important. I hope this will be led by Academician Li Jiangang and Academician Yu Jiannan. You guys will research two technical paths, laser ignition, and microwave ignition.”

Yu Jiannan thought for a bit and said, “I’m okay with this, but the laser ignition device occupies quite a lot of space. If you want to put that thing on a spacecraft, it might be a little difficult.”

“I understand.” Lu Zhou nodded and said, “That’s precisely why we need to do experiments.

“The budget given by the State Administration for National Defense is plentiful. If anyone has any good ideas, feel free to share them. We have enough funds to research any problems we want.”

Chapter 597: Too Big of a Step?

The entire controllable fusion battery project was broken into thirteen sub-projects, and this covered everything from laser ignition to electric generators. A total of six research institutes participated in the project.

Due to the success of the Pangu fusion reactor, Lu Zhou felt quite confident regarding this project.

However, there had been disagreement during the discussion regarding the fusion battery nuclear fuel.

As Sheng Xianfu listened to Lu Zhou’s crazy plan, his mouth was wide open with amazement. After a while, he spoke in disbelief.

“Are you sure you want to use helium-3 as fuel? The reaction cross-section of helium-3 and deuterium is one-tenth of the deuterium-tritium reaction, but the difficulty of ignition is ten times more difficult than deuterium-tritium!”

He wasn’t the only one that held this viewpoint. The chief engineer from the China National Nuclear Corporation, Academician Wang Zengguang, also nodded.

“I also think helium-3 isn’t practical. Even though you are saving space and the cost of the nuclear core, the fact is that this cost will be passed onto laser ignition or the microwave ignition heating device.”

Academician Yu Jiannan, who didn’t know Lu Zhou very well, spoke with nuance and subtlety.

“It’s not a good thing to take too big of a step.”

Lu Zhou tapped his finger on the table as he thought for a long time.

This was a trade-off problem.

If he chose deuterium-tritium as the fuel, they would have to install a liquid lithium neutron recovery system on the fusion battery, and the volumetric energy density of the entire fusion battery would be reduced. If the He-3 deuterium was selected as the reactant, it could save at least 15% of the nuclear core volume, and the volumetric energy density of the entire battery would increase.

However, Academician Wang's words were correct. With the current domestic laser ignition technology, choosing this technical route might not result in the effect he had expected.

Lu Zhou went silent for around five minutes.

He had an idea in his mind.

"Then let's compromise."

Sheng Xianfu: "Compromise?"

Lu Zhou nodded and said, "Just like the fusion ignition device, we'll go with both the technical routes. One route will be a deuterium-tritium fuel fusion battery and the other will be a He-3 deuterium fuel fusion battery. We can agree on a standard battery interface connection. If the bottleneck of the He-3 deuterium fuel fusion battery technology can't be solved, we can immediately switch to deuterium-tritium. One day, when the helium-3 fusion problem is solved, we'll be able to upgrade our equipment faster."

Academician Wang Zengguang thought for a bit and said, "I think it's a good idea."

Academician Yu Jiannan didn't speak a lot. He merely nodded and said, "As long as the budget allows it, I'll allow it."

Lu Zhou looked at a few other people, and seeing how there were no more comments, he said, "Okay, then it's settled."

Jumping onto helium-3 immediately was a bit premature.

Lu Zhou was convinced by his elderly teammates' persuasion.

He admitted that when he discovered the technical route regarding the miniaturization of controllable fusion through the advanced civilization debris,

he got a little too excited and forgot about Earth's current technological capabilities.

In fact, creating fusion batteries was no piece of cake in and of itself.

As for the complete reverse engineering of the advance debris thruster technology, it wouldn't be possible for at least another century...

After leaving the conference room, Lu Zhou planned to return to his underground laboratory so that he could continue to tinker with the Hall propulsion unit. However, when he remembered that there was still one more thing he had to do, he returned to his office.

Some time ago, while the higher-ups were approving his project, they suggested that he should submit the thesis on the feasibility of a fusion battery technology to an appropriate academic journal.

Even though Lu Zhou knew that this was intended to be a political strategy, he didn't really care.

The thesis was his true academic viewpoint.

If the higher-ups didn't really have a problem with the thesis content, he obviously wouldn't refuse to submit the thesis.

He retrieved the paper he wrote some time ago and scrolled through the pages on his computer. He deleted some more "ambitious" content and only kept a few things like the "detachable core", "laser heating", and "microwave heating". He then translated the entire thing into English.

In fact, for this kind of technical feasibility thesis, it didn't matter if he didn't make any changes. After all, this kind of strongly subjective thesis didn't involve specific research ideas or experimental plans. It was only an argument of whether it was "feasible" or "not feasible".

As for actually inventing the so-called "feasible" technology, that would depend on one's abilities.

After Lu Zhou read the revised thesis from beginning to finish, he stared at the PDF file on his computer screen and began to think.

Which journal should I submit it to?

He thought for a bit and suddenly smirked. He had an idea in his mind.

He dug up his list of emails, which he hadn't used for a year, and found the email of the PRL editor. He then typed up a simple letter, attached the thesis, and sent the email.

When Lu Zhou clicked send, he couldn't help but feel mischievous.

I wonder if someone will praise me for my internationalism after they read this thesis?

I'm sure anyone outside of the controllable fusion field will compliment me...

...

After Lu Zhou submitted the thesis to PRL, he posted his thesis on arXiv and left this matter alone.

What he didn't know was that his thesis was transformed into a PPT the same afternoon after his thesis was posted on arXiv.

Los Angeles International Hotel.

Inside a conference room that was a couple of hundred square meters wide...

When the crowd heard Mr. Benderbauer, the president of Tri Alpha, announcing that the company's next step was to build a plasma engine equipped with nuclear fusion batteries for the US moon landing program, they were in an uproar.

Even though the investors sitting here didn't necessarily know what exactly controllable nuclear fusion was, it didn't mean that they were stupid.

The Pangu demonstration reactor was less than three months old. The United States had barely begun researching controllable fusion. Now he was talking about the miniaturization of controllable fusion. What the hell was going on?

A lot of people looked at their watches. It seemed that they had already made up their minds. If they didn't hear any worthy news in the next five minutes, they would get up and leave.

However, Benderbauer didn't panic in a situation like this.

He was wearing a plaid T-shirt, which was a classic Silicon Valley style. He cleared his throat and looked at the investors.

“Miniaturization of controllable fusion!

“I know this might sound unbelievable, but it’s not as difficult as we think.”

He turned the PowerPoint presentation to the next page.

An arXiv thesis appeared on the screen.

As for the author of the thesis, it was obviously the chief designer of the controllable fusion project, Lu Zhou.

The crowd was in an uproar again, and there was a commotion in the venue.

Even the people that didn’t care about this PowerPoint presentation couldn’t help but start paying attention.

After all, this was Lu Zhou, the father of controllable fusion!

If anyone else were to talk about the miniaturization of controllable fusion, they would be ignored. But the words from this big name was different.

The CEO of Exxon Mobil, Woods, was sitting in the back corner of the venue, and he stared at the name on the screen.

To be honest, he was not optimistic about the over-hyped Silicon Valley company Tri-alpha. In fact, he was more inclined to invest in the practical and stable General Atomics Company.

However, when he saw the name on the screen, he began thinking again.

Because Lu Zhou’s name made a lasting impression in his mind, and this made him anxious.

The lithium batteries market had multiplied more than a hundred times. This piece of the energy pie was getting bigger and bigger, and Wall Street was full of regrets.

From the lithium battery anode material to the positive electrode material, a part of this pie belonged to them. But now, they were paying other people in

the energy industry as they watched them make a fortune in front of their eyes.

Now that a breakthrough had been made in the nuclear power field, power generation costs would be further reduced, and the lithium battery market would only grow larger.

Precisely because of the mistake he made last time, he had to pay extra attention to the technological feasibility thesis that Lu Zhou wrote.

On the other hand, Benderbauer was on stage, holding Lu Zhou's thesis.

"The nuclear core inside the battery can be of a modular structure. This design allows us to ignore the damage to the material structure to a certain extent.

"Based on this design, this disposable controllable fusion battery is much less technically difficult than the fusion reactor! Even though the cost is a problem, it is minuscule compared to the money we spent on the space race."

When Benderbauer saw the investors' eyes lit up, he knew that the time was now. Therefore, he smiled brightly and threw another piece of bait.

"As for whether or not our products will have a place in the market, please rest assured.

"In fact, just yesterday, we reached a strategic cooperation agreement with Space-X, to prepare a fusion battery that can be applied to their spacecraft. The miniaturized controllable fusion device will be first applied in the aerospace field. The related research projects have already been approved by the Congressional Budget Office!

"I believe that in the near future, our rockets will be able to use clean and endless nuclear energy. Our footprint will be all over space. I am certain that day will come sooner than the controllable fusion device in California!"

His passionate voice seemed to have ignited everyone's emotions.

Woods looked at his secretary and lowered his voice.

"I need a briefing on Tri Alpha's earnings and business operations!"

The secretary immediately knew what the CEO was thinking about.

“Okay, sir, the documents will be on your desk by tonight.”

Woods said, “Go do it now, I need it before the six o’clock dinner.”

The secretary nodded upon hearing this difficult demand.

“Ok.”

Chapter 598: A Market Created by a Thesis

For a Nobel Prize laureate, making money was a very easy task.

Even though most investors had rich investment experience and financial knowledge, they didn’t know much about science. Therefore, this kind of investors usually either avoid investing in esoteric science fields, or they would just consult experts.

When it came to experts, it seemed that in the eyes of ordinary people, there was no better proof than a Nobel Prize winner.

In a situation like this, even if a concept looked quite unreliable, as long as there was a Nobel Prize big-name vouching for it, a ton of investors would be eager to invest... even if they didn’t know what exactly they were investing in.

This didn’t only happen in the controllable fusion field. This type of thing was very common.

For example, blockchain...

Lu Zhou didn’t know that within a day, his thesis caused a lot of people to jump from the small controllable fusion train onto the large miniaturization of controllable fusion train. There were also a lot of smart people that seized this opportunity and doubled their net worths.

In a single day, the concept of controllable fusion batteries had exploded in America, and a multi-billion market had been created.

On the other hand, China didn’t seem to have a lot of movements. After all, controllable fusion was still a sensitive technology. Most private companies

and venture capital firms could only look through a window. They couldn't get the tickets for the show admission, let alone playing on stage.

However, even though there was a lot of noise in the fusion battery field, there was also a lot of action.

Various cooperative research institutes had begun research on the fusion battery project.

Compared to the demonstration reactor project, the miniaturization of controllable fusion wasn't as urgent. Both the government and Lu Zhou weren't in a hurry. They had plenty of time to research.

Compared to others, Lu Zhou was mainly responsible for a leadership role.

As for the focus of his current work, it was still on the system reward mission.

Lu Zhou woke up early the next morning.

After he took a shower, he put on his sportswear and ran along the asphalt road outside his mansion toward the golf course.

Springtime came along with March, and winter had already passed. Even though it was six o'clock in the morning, the sky was already bright and the thin morning mist was fading. The Purple Mountain was glowing from the sunshine.

If Lu Zhou wasn't particularly busy, he would run around his neighborhood either at night or in the morning. He wasn't interested in the slow-paced game of golf, but he quite enjoyed the greenery here.

Lu Zhou sprinted for a short distance and stopped near a bench. He wiped his sweat with a towel that was draped over his shoulder.

Coincidentally, a man in his fifties was also exercising in the morning. When he saw Lu Zhou sitting here, he smiled and greeted him.

"Oh, Professor Lu is exercising in the morning today?"

In a sense, he was kind of a celebrity in this neighborhood.

When the controllable fusion project was still going on, the army stationed a team that was responsible for his security near the suburbs. Hence, a lot of people had been gossiping about Lu Zhou.

Lu Zhou put the towel back on his shoulder and stood up straight. He said, "Yeah, I have to exercise. Scientific research is hard work. If I don't exercise, I won't be able to keep up with the young people."

The old man laughed and said, "You're not even in your thirties yet, and you're already comparing yourself with young people."

"I'm twenty-six now, nearly in my thirties."

Zhongshan International was considered to be the wealthiest area in Jinling. Most of the people living here were filthy rich. For example, Zhang Anqiang, who was talking to him, was the CEO of a listed company.

Because Lu Zhou often ran into him, he knew this old man's name. However, even though this man was worth millions, Lu Zhou was used to working with giant companies that were worth billions.

At least in Lu Zhou's eyes, this old man was just a normal person who was exercising in the morning.

After some small talk, Lu Zhou stood up and continued his morning run.

The sun on the horizon completely eliminated the morning fog. Lu Zhou ran home and took a bath upstairs.

He was putting on his usual windbreaker when he heard the doorbell. After Xiao Ai confirmed the identity of the visitor, Lu Zhou told it to open the door. He then walked downstairs.

"I brought you breakfast." Wang Peng placed the soy milk and soup buns on the table. He looked at Lu Zhou and asked, "Are you going to the research institute or the university?"

"University."

Lu Zhou shook his head to dry off his hair and sat down at the table. As he was eating his soup buns, he took out his phone and began to scroll through the arXiv website.

Seeing how Lu Zhou was occupied, Wang Peng sat on the sofa and picked up a magazine on the coffee table.

When he flipped through some of the magazines, he realized that he couldn't understand any of them, and so, he gave up on reading them.

"If you're interested, you can try reading Scientific Reports. It's more of a scientific mega journal. It's not as esoteric and most people are able to read the articles."

Seeing how Lu Zhou suddenly spoke, Wang Peng paused for a second and smiled before he said, "I thought you only read Science or Nature."

Lu Zhou sipped the remaining soy milk before wiping his hands with a napkin.

"Occasionally I'll read some layman articles."

Wang Peng said, "Trying to leave no stone unturned?"

Lu Zhou: "No, there are some mind-blowing articles that I find interesting."

Wang Peng: "..."

Lu Zhou looked at his watch and saw that it was about time. "I'm done eating, let's go."

"I'll get the car." Wang Peng got up from the sofa. He suddenly remembered something, and he said, "Oh yeah, Doctor Yan told me to tell you something."

"What?"

"Don't forget the medical check-up tomorrow."

Lu Zhou nodded and said, "Okay, got it."

...

The car ride took around twenty minutes.

A black car with a mounted national flag was parked near the mathematics building.

Lu Zhou greeted Old Tang, who was on his way to give a lecture. He then went straight to his office.

Lin Yuxiang, who was sitting at her table, yawned while studying for the National Public Servant Exam. When she saw Lu Zhou appear at the door, her eyes immediately lit up, and she walked toward the coffee machine. After a while, she held a warm cup of coffee and gently placed it on Lu Zhou's desk.

"I put some milk in your coffee. Apparently, it helps with fatigue."

"Thanks."

Lu Zhou took a sip and put down the cup.

"Is it good?"

"Is it freshly brewed?"

Lin Yuxiang stared at Lu Zhou with her fingers behind her back as she said, "Yeah, my boyfriend got it from Brazil. If you like it, I can tell him to bring more next time."

Lu Zhou: "No, thanks, I prefer instant coffee."

Lin Yuxiang: "...?"

Kong Jie was sitting at her desk nearby. She wanted to laugh but decided not to.

The office door was opened.

A girl with a ponytail walked through the door.

Han Mengqi looked at the lady standing near Lu Zhou's desk and walked toward Lu Zhou. She then asked quietly, "Teacher, can I steal some of your time?"

"Call me professor." Lu Zhou coughed and looked at Lin Yuxiang as he said, "You can head off."

"Oh... Okay."

Lin Yuxiang nodded and walked away.

Han Mengqi looked at her and couldn't help but frown. When she noticed Lu Zhou looking at her, she remembered why she came here.

She blushed, and she quickly took out the thesis she was holding. She then pointed toward some highlighted areas as she said softly, "I finished the tasks you gave me... There are just a few parts that I haven't been able to figure out."

Lu Zhou glanced at the highlighted parts.

"They're all calculation-based?"

"Yeah." Han Mengqi nodded awkwardly and looked down as she murmured, "Is it because I'm too stupid?"

"No way, you're quite talented. No one is born with knowledge, learning is everything."

Lu Zhou took out a piece of draft paper from his drawer and picked up the pen. He did some calculations on the paper and began to tutor his little student.

After Lu Zhou explained the calculation process, he paused for a second before he continued, "In short, you did a good job, but you have to get better at calculations."

"If you plan to innovate on top of my theory, I suggest you choose the semiconductor-electrolyte solution interface as your starting point."

Han Mengqi: "Semiconductor-electrolyte solution interface?"

Lu Zhou nodded and said, "As far as the phenomenological model is concerned, the physical image of the semiconductor-electrolyte solution interface is more complicated than the metal-electrolyte solution interface. The existing theory of this interface mainly focuses on the analysis of the potential distribution of the space charge layer. However, when it comes to the surface interface, the impact of interface energy level, etc, those haven't been deeply investigated."

Han Mengqi tilted her head and asked, "Does your Theoretical Model of Electrochemical Interface Structure not explain this?"

Lu Zhou: "It explains it to a certain extent, but it isn't perfect. My theoretical model mainly applies to the electronic-conductor-electrolyte-solution interface, it's not involved in the semiconductor interface.

"I'm working on a project for carbon-based computer chips. If you are interested, you can try to research in this area."

Carbon-based chips had always been one of the key projects of the Jinling Institute for Advanced Study. Some progress had been made, but a few key technical bottlenecks had not yet been solved.

If everything went well, it should be solved within a couple of years.

Han Mengqi took note of Lu Zhou's words as she nodded and said, "Ok!"

Liu Siyuan, who was studying, heard Han Mengqi and Lu Zhou's conversation, and he felt anxious.

Is this the world of geniuses?

He finally understood why Han Mengqi was so eager to talk with Lu Zhou...

Suddenly, the office door was pushed open again.

Lu Zhou thought that another one of his students had come. When he looked up and saw a familiar face, he was stunned.

Han Mengqi was also stunned.

She looked at the person. "Sis?!"

Chapter 599: Someone Is Investigating You

"Meng Qi?"

When Chen Yushan saw that her cousin was here, her eyes lit up. She immediately walked over. "What a coincidence, you're here as well?"

Han Mengqi nodded. "Yeah... I'm studying for a master's degree under Lu Zhou, of course I'm here."

Chen Yushan held her cousin's hand and looked at her as she said with emotion, "Time really flies by quickly. It feels like you're still in high school yesterday, but now you're already a graduate student. Also, didn't you like putting your hair in a double ponytail? Why did you change to a single ponytail?"

Han Mengqi touched her hair and said, "It looks more mature this way..."

Lu Zhou looked at the two sisters and coughed. "Why did you suddenly come here? You didn't even tell me you were coming."

"You're too busy." Chen Yushan rolled her eyes and said, "I've some business in Jiangsu for a few days, so I came here to visit you. Also, it's so that I can report to you about the work I've been doing."

Lu Zhou: "Report?"

Chen Yushan blinked and asked, "Did you forget?"

Lu Zhou said, "Forget about what?"

"It's not appropriate to talk about it here. Since it's such a rare occasion, let me buy you a drink?" Chen Yushan looked at her cousin and said, "Meng Qi, do you want to come?"

Han Mengqi immediately nodded. A moment later, she asked quietly, "You guys are going to talk about business, right? Won't I bother you?"

Chen Yushan smiled and said, "It's just not appropriate to talk about it in public, but there are no secrets... Of course, it depends if Professor Lu minds."

"Of course I don't mind." Lu Zhou smiled and said nonchalantly, "You guys haven't seen each other for a long time, right? Let's all go together."

...

At a commercial district near campus, inside a cafe.

It was still quite early in the day, plus it was a workday, so there weren't a lot of people here.

Lu Zhou found a seat near a window to sit at. He then ordered a cup of hot mocha and leaned back against his chair. He looked at the decor inside the cafe.

He felt quite nostalgic since he accepted his first tutor job here. It had already been six years since then, and he went from being a student to a famous scholar. And yet, this place hadn't changed a bit.

"An iced cappuccino and an iced americano."

Chen Yushan helped order for her cousin and politely returned the menu to the waiter.

Lu Zhou watched the waiter bring their drinks over. He then took a sip of his mocha before looking at Chen Yushan and asked, "Can you tell me now?"

"It's regarding the shares from East Asia Energy."

When Lu Zhou heard the name "East Asia Energy", he immediately remembered what the matter was.

"Oh, you already bought it?"

"Yeah, I've been busy with this over the past couple of days."

Lu Zhou nodded and asked.

"How much did you buy?"

Chen Yushan said, "Just like you said, a billion USD."

"Ptui!"

When Lu Zhou heard USD, he nearly spat his coffee out.

Chen Yushan looked at him choking and smirked as she continued to speak, "I have carefully studied the prospectus of East Asia Energy. The main purpose of this fundraising is for the construction of the cross-regional power grid in the southwest and the new fusion reactor project in Daya Bay. The expected capacity of the project will reach 100,000 MW. Within a year, the old

fission reactors and other electric generators will gradually be replaced. East Asia Energy will supply power to Hong Kong, Macao, Guangdong, and other places.

“According to my experience, this kind of investment is high profit, low risk. You can rest assured! If that guy named Feng wasn’t so persistent, I would have found a bank to borrow hundreds of millions just to buy more shares.”

No shit, they have a monopoly, of course this is high profit, low risk!

Lu Zhou wiped the coffee off his chin and said, “A billion USD... That’s almost 7 billion yuan, isn’t it a bit too much?”

7 billion...

The total amount of public shares is only 20 billion yuan!

Lu Zhou ate a third of a pie just by himself. He was worried there might be a problem.

Chen Yushan blinked and asked, “Is it a lot?”

Lu Zhou: “...”

Seeing how Lu Zhou was speechless, Chen Yushan smiled and said, “Calm down, calm down. I know what you’re worried about. Before contacting East Asia Energy, I discussed it with my dad. He said that as long as the money is clean, there is no problem investing normally just like everyone else. Think about it, if there is a problem, Feng Shuqing wouldn’t approve of it.”

Lu Zhou couldn’t help but say, “Who knows what Feng Shuqing will do...”

Chen Yushan said, “Technically, he’s your subordinate. Do you know anything about your subordinates?”

Lu Zhou: “I’m not interested.”

Even though Feng Shuqing was technically the second-in-command of the project team, he reported directly to the government officials. Therefore, he wasn’t technically Lu Zhou’s subordinate.

Lu Zhou did not care for administrative work.

Rather than delegating work to other people, he preferred to do experiments in his laboratory.

Seeing how Lu Zhou was disinterested, Chen Yushan sighed and said, "Being able to take on this role in his thirties and reorganize the demonstration reactor project team, this isn't something that normal genius students from Shuimu University can do. This person has a bright career in front of him. He's not going to put himself in a risky situation just to be friends with you. His approval is definitely backed by the higher-ups."

"You really know a lot."

"I don't know that much. It's mainly because my dad always talks about this kind of stuff at home, so I inevitably learn some of it." Chen Yushan held the straw and stirred the ice cubes in her cup as she sighed and said, "That's why I don't want to work in the government, I can't fully showcase my financial ability."

Lu Zhou drank his coffee and pretended like he didn't hear the second part.

A billion USD case isn't enough to showcase your financial ability?

Lu Zhou didn't know what to do with this chick.

Suddenly, Chen Yushan remembered something.

"Oh yeah, there's one more thing you should pay attention to."

Lu Zhou asked, "What thing?"

Chen Yushan: "Star Sky Technology has a laboratory in California?"

Lu Zhou nodded and said, "Yeah, but it's mainly responsible for ordering me some more obscure reagents and to take on some projects from the Institute of Computational Materials... Is there a problem?"

Chen Yushan said, "If you transfer anyone here, try to transfer them now. If you can't transfer them, it'd be better to find a way to get rid of them. When I was investigating the company's business a few days ago, I noticed someone investigating your assets in North America... I talked to your CEO from the North American branch, and we agreed that there might be someone who's trying to collect evidence."

Lu Zhou frowned and said, "Investigating me? What is there to investigate?"

He had always been very careful.

When he returned to China, he donated all of his mathematics notes, and he didn't bring a single piece of paper back.

If anyone was to investigate him, he didn't think they would find anything.

"Please, you're Chief Designer Lu. Because you went to the Germans to buy the WEGA stellarator, our country was kicked out of ITER. Now that the Pangu fusion reactor is in everyone's face, of course they're going to investigate you."

"Who do you think it is?"

Chen Yushan rolled her eyes and said, "They're obviously not going to announce their investigation, but surely you know who it is."

Lu Zhou looked at his cup of coffee and went silent for a while. He suddenly smiled and shook his head.

"I didn't think that a mathematician would be on the CIA's list."

Actually, he wasn't completely surprised.

When he was doing the He-3 atom probe experiment at Princeton, he vaguely felt that someone might have noticed him. If he continued to conduct research, there was bound to be a problem.

However, at that time, controllable fusion was a futuristic field, and it did not receive a lot of attention. Countries never put their hopes of addressing climate warming and the energy crisis on fusion energy. It was not until the success of the STAR-1 device that everything was completely changed...

Chen Yushan's slender chin rested on her fist as her delicate lips bit the straw. She smiled and said, "Don't worry, I'll protect you."

Lu Zhou looked at her slim shoulders and couldn't feel any sense of security from her.

"Oh, thanks."

Chen Yushan snorted and said, "What is that kind of reaction? Are you bored?"

Lu Zhou thought for a bit.

"Um... I'll buy you dinner next time?"

Chen Yushan smiled and felt nostalgic. "You didn't change at all."

Lu Zhou paused for a second.

"I haven't?"

He thought that compared to his twenty-year-old self, he had actually changed quite a bit.

As Han Mengqi watched these two talk, she kept her head down while using a spoon to mix the cream in her cappuccino.

She hadn't said anything yet.

This wasn't a big deal. After all, she didn't have anything special to say.

She just felt like...

Sitting next to these two made her feel like a little kid.

She sighed and sat there feeling gloomy.

However, she didn't know why she was feeling this way...

Chapter 600: Stock Market Is Risky

There was only a certain amount of business stuff to talk about.

Later on, the three people began to talk about some interesting things in their life and work.

After Chen Yushan polished off the desserts and her drink, she looked at her watch and saw that it was getting late. She smiled and said, "I have a meeting

soon, so I have to go. Oh yeah, Meng Qi, remember to tell your mom I said hi. I'll visit you guys in a few days."

Han Mengqi nodded and said, "Ok!"

Lu Zhou looked at the time and also got up from his chair.

"Yeah, I have to go back as well. Your car is still at the campus entrance, right? Let's go together."

After he returned to his office, he planned on sending an email to Sarrot.

If Sarrot wanted to come work in China, Lu Zhou would provide him with a laboratory.

If he didn't want to come, then Lu Zhou would respect his decisions and help him find a new laboratory. Everything would end on good terms. Even though this political situation had affected his research, he didn't want it to continue affecting his life.

Even though Sarrot had always been a cocky person, he was actually quite academically able.

After working together for so long, Lu Zhou appreciated him.

After they walked to the campus entrance, Chen Yushan waved goodbye to Lu Zhou and her cousin. She then got into a silver sedan.

Lu Zhou smiled and waved goodbye.

Ever since Chen Yushan moved from Beijing to Shanghai, Lu Zhou felt like she had gained a lot more energy.

Lu Zhou felt this indescribable aura coming from her body.

It seemed like she had discovered her life purpose.

She had been searching for this kind of thing for a long time, surely she had found it already.

Han Mengqi walked next to Lu Zhou and glanced at his face.

She hesitated for a bit before saying, "Teacher..."

“What?”

“Um... What do you think about my sister?”

Lu Zhou looked at her strangely.

“What do you mean what do I think?”

Han Mengqi’s cheeks turned red as she said awkwardly, “Like... in terms of feelings...”

Lu Zhou went silent for a while. He seemed to be thinking.

Han Mengqi saw him and felt worried.

Suddenly, she regretted asking this question.

When she was just about to change the conversation, Lu Zhou suddenly spoke.

“She’s one of the few friends I can talk with.”

When Han Mengqi heard this unexpected answer, she paused for a second.

One of the few friends he can talk with?

She didn’t know why, but when she looked at him, she felt heartbroken...

...

Haizhou, demonstration reactor base.

The demonstration reactor project had been completed. After the commendation conference, everyone basically had nothing to do. In some sense, they were being compensated for having no holiday last year.

Other than the busy experts who were responsible for the grid-connected technology of electricity generators, most researchers and engineers were sitting in their offices. They held pointless meetings, filled in documents, and did their own things most of the time.

For example, Su Yiwen from the technical department had recently become fascinated with the futures market. Whenever he was at work, he would look

at the market charts and graphs. Other than going to the toilet or eating, he stayed at his desk all day.

Su Yiwen, who was short-selling, looked at the bleak futures market and clicked his mouse. He sighed and spoke emotionally.

“The price of Brent crude oil futures was 60 something just a while ago, but now it’s fallen below 45 barrel. Why aren’t the Chinese oil companies dropping as well?”

Looking at this trend, the price of oil was going to fall below US\$40 per barrel.

When that time comes, surely China’s oil production will stop, right?

Zhang Xueqian was reading a newspaper when he looked at his colleague and smiled.

“Forget about it, once Pangu connects to the grid, it would be impossible for the oil price to fall. Forget about the price falling. Once electric vehicle technology has matured and their charging stations are extended to fourth and fifth-tier cities, the tax on oil will increase.”

Su Yiwen paused for a second and asked, “Why is that?”

Old Zhang looked at him and smiled as he said, “Do you know what macroeconomic regulation and control is?”

“I do... but what does this have to do with macroeconomic regulation and control?”

“Think about it, our nation’s energy is heavily dependent on imports and the channel for transporting energy is in other people’s hands. After the fusion reactors are connected to the grid and generate electricity, the cost of electricity will go down. The country will have to adjust our energy structure, like pushing for electric cars. Now, if the oil price goes down, will you switch to an electric car?”

Su Yiwen thought for a bit and felt that it made sense. However, if someone suddenly made him change cars, he would feel a little reluctant.

Seeing how Su Yiwen wasn’t speaking, Zhang Xueqian began to talk about the things he read in the newspapers.

“Now that lithium-sulfur batteries have been invented, the electric car ranges aren’t that much lower than gasoline cars. Charging time might be a problem, but it’s a lot better than a few years ago. I also heard that the Power Industry Association is going to combine a number of car companies and standardize the battery interface. Then no one would have to charge their batteries since they could just switch out the batteries. Of course, no one knows when that technology would come. We’ll have to see what happens next.”

The state had invested trillions of dollars into new energy vehicles. This money had to come from somewhere.

Where did it come from?

It obviously came from those people who were unwilling to keep up with the changing times.

Even though Su Yiwen knew this was a good thing, he couldn’t help but complain, “So they’re forcing us to switch cars?”

Zhang Xueqian said, “You can interpret it that way... But you have to admit, this is the right thing to do in the long term.”

Whether it was for environmental protection or being able to escape from being dependent on energy imports, ever since East Asia Energy was established, gasoline cars were slowly being eliminated.

The government officials were quite smart.

They spent less than 100 billion yuan to build the fusion reactor.

Not only did it save trillions in energy costs, but it also created a trillion-dollar market.

With the advancement of electrical energy, industrial production and social vitality would undoubtedly improve.

What could the future look like?

It seemed like only time could tell.

Suddenly, the office door was pushed open, and Chief Wang from the finance department walked in.

He was holding a list of names and contracts in his hand. He avoided any small talk and went straight to the point.

“East Asia Energy is raising funds from the public, are you guys interested? If not, I’ll ask someone else.”

Su Yiwen was just about to ask some questions. He was surprised to see Old Zhang, who wasn’t interested in stocks, suddenly stood up.

“How much are they raising?”

Chief Wang said, “A total of two billion shares were issued, ten dollars per share.”

Su Yiwen froze.

The f*ck?

They’re raising 20 billion?

However, he was even more surprised by Old Zhang’s words.

“I’ll buy 100,000 shares!”

Su Yiwen: “???”

A hundred thousand!

That’s a million!

This guy always talks about how broke he is, when did he get so rich?

Chief Wang didn’t accept his demands. He shook his head and said, “Every employee can only buy 3,000 shares.”

When Zhang Xueqian heard this number, he felt a bit uneasy.

“Only 3,000?”

“Yes.” Chief Wang was expressionless. He didn’t plan on negotiating at all. He said, “Technical employees are limited to 3,000, administrative employees are limited to 2,000, the rest is at 1,000. Secretary Feng wrote the rules. If you are unhappy, you can go talk to him.”

Seeing how Secretary Feng made the rules, Zhang Xueqian sighed and didn't say anything else.

3,000 is quite a lot anyway.

Including the army members, as well as the research units around the country, the entire demonstration reactor project team had tens of thousands of people. Only 2 billion shares were issued to the public. 3,000 shares each person was quite good. If the general public wanted to buy the shares, they might even have to go through a lucky draw.

Zhang Xueqian comforted himself in his head and took over the contract from Chief Wang's hands. He signed his name on the contract and wrote down the number of shares.

"Remember to make the payment before Wednesday. Otherwise, your order will expire."

Chief Wang then looked at the other person sitting in the office. That person was Su Yiwen, who was sitting in front of a computer.

Before he could open his mouth, Su Yiwen spoke.

"I want in."

After Su Yiwen signed the order, Chief Wang left the office.

Su Yiwen looked at the contract in his hand and asked emotionally, "Old Zhang, the stock market is risky, did we buy too much?"

Zhang Xueqian immediately rolled his eyes and reached out his hand as he said, "If you don't want it, give it to me, I'll take on your risk."

"I was just saying..."

Su Yiwen smiled and tightly held onto the document in his hand.

He was just joking, he wasn't dumb.

This type of free money opportunity was once in a lifetime. There was no way he was going to give it away.

While the East Asia Energy shares were issued to the demonstration reactor project team, the online orders had also begun.

However, the people who had heard about this news in advance through various channels, as well as the professional investors, such as the private equity funds and investment companies, who were refreshing the purchase page, were surprised to see that the 20 billion of market cap was gone in an instant.