Scholar 261

Chapter 261

This statement was not an exaggeration.

Right now, the technical bottleneck restricting lithium batteries was the problem of lithium dendrites. This was applicable in a portable bomb or a high-performance battery. The problem was who could solve the “silver fork” that pierced the diaphragm. Although it was only a small negative electrode material, its application was insanely broad.

Of course, the premise was that this thesis was true.

The two editors stared at this thesis for a long time, no one could make up their minds.

The format of the thesis didn’t have any problems, the writing also didn’t have any mistakes. This type of research experiment was definitely in-line with Nature submissions. But the problem was that this experiment was almost “too high tech”. Everyone was studying how to inhibit the growth of lithium dendrites, but this guy solved this problem completely?

Therefore, the two editors were hesitant.

Kerryman stood behind Kevin and asked, “What do you think about this?”

Kevin frowned and said, “I don’t know. The thesis itself doesn’t seem to have any problems. It’s definitely a breakthrough in the research of lithium batteries, but… I can’t make a definitive conclusion based on the thesis itself.”

Kerryman said, “The writer is from Princeton.”

Kevin sighed and said, “I know, he’s a mathematics professor. Not long ago he won the Crafoord Prize. However, I did some research and only found one material science thesis that he wrote.”

Kerryman paused for a second. He then said, “Professor Lu Zhou’s academic reputation is high, so I think he wouldn’t make any mistakes.”

Kevin asked, “Then your suggestion is?”

Kerryman said, “My suggestion is that if the thesis doesn’t have any problems, and it meets the requirements of our journal, then we should just throw it to the peer reviewers. If the experts think there’s no problem, then we should be fine.”

It was not like the journal was personally responsible.

Kevin said, “Then who do you think is appropriate?”

“MIT professor Moungi G Bawendi. He’s well versed in battery research. I think he’s a good choice,” said Kerryman. He paused for a second before he continued, “Since he reviewed Lu Zhou’s previous materials science thesis, I think his opinion is crucial.”

Kevin thought for a bit. He could not come up with a better idea.

“Then… We’ll just go with your suggestion.”

…

A week after the thesis submission, a piece of good news came from Nature. Lu Zhou’s thesis had passed the technical editor review and entered the peer review stage.

Lu Zhou was relieved to hear this news.

At least his thesis was not like 90% of people, where they were rejected for “not in line with reader’s interest”, or “not enough innovation”.

Although Nature was a good choice, there were many other organic chemistry journals that Lu Zhou could consider. However, Lu Zhou's objective was to promote his new technology, so in this regard, there was no other journal that had the same level of impact as Nature.

Now that the thesis was in the hands of professionals, it should be a lot easier. Lu Zhou believed that his peers would give his thesis a fair evaluation.

Time quickly passed.

The 15th of July had finally arrived.

As per Lu Zhou's request, his three master's students arrived on Princeton grounds.

The three students were Vera Pulyuy from Berkeley, Qin Yue from China, and Hardy Clive from Columbia University.

Lu Zhou already had an impression of Vera, and she did not change much from when he met her in Berkeley. She was still small, but a strong girl.

Qin Yue was the same. He had a pair of square glasses and was very polite, but not very extroverted. However, Lu Zhou recognized his mathematics ability and talent because he had already tested his mathematics ability during the interview.

As for the Brazilian guy named Hardy, his mathematics ability was inferior to Hardy and Vera, but he was still talented.

Lu Zhou developed different requirements and training plans for each of them.

There were not many supervisors who were as responsible as him.

Lu Zhou spent the entire afternoon helping the three students sort out their accommodation and enrollment. Then he brought them to his office and started planning their work for next month.

“Your talents and abilities are good, but you guys are a long way from my requirements.”

Lu Zhou paid careful attention to them when he said this. None of the students expressed dissent. Someone even looked at him with worship.

He cleared his throat and continued, “… Before September, I won’t let you guys touch my research project. Because at your level, the most you can do for my project is to make me coffee. I’ll arrange learning tasks for you guys. If some of you can pass the August test, then I’ll allow you to join my research project…”

“… This research project will accompany you throughout your master’s studies. I’m not asking you to complete it, but you must show results. At least, your results must be worthy of Annual Mathematics. Of course, I’ll help and research with you guys, but the main work has to be done by you. I’ll only provide guidance and ideas.”

Lu Zhou learned this speech from Professor Lu.

However, Princeton had Princeton standards.

During the interview, Lu Zhou reminded them that he would not let them cruise through their master’s. Every day would be fulfilling.

Qin Yue asked, “What if someone doesn’t pass the test?”

You had to pass the test if you wanted to join the project. If you did not pass, it meant that you could not graduate?

Studying abroad was a rare opportunity, so Qin Yue naturally was concerned about this problem.

Lu Zhou said, “Then you would have to study and make coffee for me until you pass the test, but I think you should be more confident. The reason I chose you guys, is because I think you guys can meet my requirements.”

Compared to Qin Yue, Hardy was a little cocky. He was not even worried about the test. Instead, he asked, “Professor, what is the project about?”

Of course, Lu Zhou did not reveal the project directly. He only smiled.

“It’s related to hail.”

Chapter 262

However, even though he might be far from commercialization, he had already owned four companies through said technology. Most professors were worried about their research funding, but he was already a CEO.

Suddenly, he received an email from Nature.

“Lithium dendrites?”

When Professor Bawendi opened the email, he raised his eyebrows with interest.

He rubbed his chin and said to his assistant, “Ladis, bring me a sandwich.”

“Okay, professor!”

The beautiful woman in a white coat got up and walked outside. She soon came back with a bacon sandwich.

Professor Bawendi sat in front of the computer and eat his breakfast while he continued to read the email.

Honestly speaking, he did not believe that someone solved the lithium dendrites problem.

Although he was not in lithium batteries research, the people in his research team had studied it, so he knew a little about it.

UK's Oxis energy and America's Sion Battery were at the forefront of battery research, and they had not made any special progress. Samsung had been registering patents as always, but they had not made any big announcements.

The only progress was last year when an MIT professor found that fixing sulfur in mesoporous carbon materials and combined with special electrolytes could inhibit the growth of lithium dendrites.

However, it turned out that it was only a misunderstanding. The lithium dendrites problem was not that easy to solve. Otherwise, IBM would not have cut their investment in supercomputers lithium dendrites research.

If this thesis was written by anyone else, Professor Bawendi would have thrown it away. The author was interesting. Although he was not famous in the field of materials science, he was a Princeton mathematics professor.

"Improving the 'breathability' of the negative electrode material through the PDMS material film, and inhibit the growth of lithium dendrites… This is not a novel idea. The performance on the SEM electron micrograph is surprising, and it doesn't look fake…"

"Computational materials science can do this? I've never heard of it before."

The image of the negative electrode material of the several charges and discharge cycles showed that the negative electrode material located under the PDMS film did not form the deadly white trees, but instead it formed a layer of mossy pleats layer by layer.

Then there was the discharge process. Since the surface of the entire negative electrode material was a layer of undulating moss-like folds, there was no so-called tip region, and after the discharge was finished, there was no large amount of dead lithium residue on the electrode.

If these results were accurate, then there was no doubt the results would be groundbreaking.

The only downside was that these folds would also affect battery life and performance. However, compared to the lithium dendrites bottleneck, the downsides were negligible.

Professor Bawendi tapped his finger on the table and started to think.

The thesis was a good thesis, and he could not find any mistakes in the data and images. Still, this was too groundbreaking. Like the editors from Nature, he could not make a decision.

Professor Bawendi thought for a long time. Suddenly, he said, “Ladis, I will send an experiment report to your email. Ask Issac to do it according to the report. Remember to tell him that this is his experiment of the week.”

“Okay, professor.”

Done.

Professor Bawendi smirked.

Issac was his master’s student, who researched battery technology.

The experiment was not difficult. It would take Issac three days to complete.

Although generally, the reviewer was not responsible for doing the experiments, Bawendi was curious.

Anyway, since he had the equipment, the material would not cost much.

If Lu Zhou really solved the problem of lithium dendrites, then Bawendi would be witnessing history.

…

While Lu Zhou's Nature thesis was in peer review, it was not as if he did nothing.

Once again he called his three master's students to his office and gave everyone a book list.

The book list was not long, only six books.

He asked them to thoroughly understand the contents of the books within a month and a half.

By then, he would give them a test based on the contents of the six textbooks.

For a newly undergrad student, this was not an impossible task. A lot of the content was taught in undergrad, just at a shallow level.

And now Lu Zhou wanted them to dive deep into the topics.

They would have to pay a little blood, sweat, and tears to join Lu Zhou's project.

It was foreseeable that their summer would be very fulfilling.

Lu Zhou was sitting in his office writing an opening report when he suddenly received a phone call from China.

Xiao Tong excitedly screamed in the phone.

"Brother! I got it!"

When Lu Zhou heard Lu Xiaotong's excited voice, he smiled.

"Congratulations!"

Xiao Tong said, “Brother, can I ask for one thing?”

Lu Zhou said generously, “Say it, what gift do you want? I’ll mail it to you.”

Xiao Tong shook his head and said, “I don’t want a gift. I want to visit you in Princeton!”

Lu Zhou was stunned.

“There’s nothing to do in Princeton.”

In Lu Zhou’s mind, all there was to do was visit the Carnegie Lake.

The rich academic atmosphere was not something ordinary people could feel.

Xiao Tong said, “It’s too boring at home. I want to go outside.”

Lu Zhou thought about it. It made sense.

It was a pity to waste her summer vacation at home. It would be good for her to get out of the house.

Lu Zhou said, “Then… Do you know how to apply for a visa?”

Xiao Tong replied immediately, “Of course I know. I already applied for my passport! I’m going to Shanghai to apply for the visa tomorrow!”

I guess this girl already planned the whole thing.

Lu Zhou shook his head and smiled.

“Okay then, I’ll buy you the ticket. Just get on the flight and I’ll pick you up.”

Xiao Tong cheered.

“Wow! Brother, you’re the best!”

“Haha, you’re welcome.”

Lu Zhou hung up the phone and smiled.

Suddenly, he remembered something.

Speaking of which, he did not know how Han Mengqi was doing.

He had not tutored her in a long time, but she was still his student. Lu Zhou had helped her studies a lot, so he still cared about her.

After the college entrance examination, he never asked for her result. Now that the college offers were released, he wanted to know if she got into her ideal university.

Lu Zhou opened WeChat and sent a message.

[Did you get the offer?]

He waited for a long time, but he did not get a reply.

Lu Zhou guessed that she probably did not see the message, so he put his phone aside.

I hope she gets into her ideal university.

Lu Zhou placed this matter aside and continued his work.

Chapter 263

Since they began studying, Qin Yue had not stopped reading.

Hardy sighed and gave up. He then asked, “Qin, are your professors in China this scary?”

Qin Yue, “Scary?”

Hardy nodded his head and said, “Yeah. When I was in Brazil, I was always first in mathematics for my high school and everyone thought I was a genius. Once I got into Columbia, I met a lot of geniuses, but the content for the course was still easy for me. I did it easily without spending much effort.”

Hardy sighed and continued, “But now, I’m starting to have some doubts about my talents…”

Qin Yue did not know how to comfort this kid. Instead, he pushed his glasses and said, “Because this place is Princeton?”

Honestly, Qin Yue’s previous university, Kai University, did not have professors this strict.

However, since he had spent the last four years studying like this, he was used to it.

“Princeton professors can’t all be this strict. Yesterday I played football with a schoolmate. Professor Lu Zhou is definitely an exception,” said Hardy as he shook his head. He suddenly remembered something and he asked, “Speaking of which, Qin, I noticed that you’re already on your second textbook. Do you have any tips? Or did you already know this stuff?”

Qin Yue shook his head and said, “Nope, this is my first time learning this.”

At most, Qin Yue did some preparations before, but not much.

Hardy said with an unbelievable tone, “Impossible! Wait a minute, don’t tell me you study in your bedroom? God… How long do you spend to study in a day?”

Qin Yue said, “What else am I supposed to do besides sleeping and eating?”

Hardy: “…”

I can’t continue the conversation with this dude…

…

Six textbooks in six weeks were difficult, but Lu Zhou knew this when giving out this task.

Therefore, he set his expectations very low. As long as his students learned half of the textbooks, he would count them as a pass.

As for the rest of the knowledge, they could learn it while helping him with his research project.

After all, textbooks were always behind, and it was only to get one’s foot in the door. The textbooks often did not contain documents or thesis materials, which were needed for research.

However, Lu Zhou did not expect that within a week, one person had already completed his task.

When he heard the news, he was overly surprised.

Because…

It turned out that he found gold.

"… Your talents are amazing. I thought that it'd be impressive if you could solve four or five out of the ten questions. Looks like I underestimated you."

Lu Zhou looked up from the test paper and looked at Vera with surprise.

He came up with all of the questions himself, so there was no way for Vera to know the answers beforehand. Although the ten questions were not particularly difficult, getting them right meant that Vera completely absorbed all of the knowledge from the six textbooks.

Vera smiled and said humbly, "I already read four of the books back at Berkeley, so I guess I got lucky."

"This isn't luck," said Lu Zhou as he placed the test paper aside. He smiled and said, "Congratulations on passing my test. From now on, you are a research member in my project!"

Vera smiled. This was what she dreamed of.

Lu Zhou said, "I'll email you the contents of the project. Although the project will officially begin in September, you can use this time to think about the project. This is an interesting project."

Vera nodded her head politely while her golden hair swayed like a squirrel's tail.

"I understand, anything else?"

Lu Zhou shook his head and said, "Nope, you can go back now."

Vera packed her things and happily said goodbye to Lu Zhou. She then turned around and left Lu Zhou's office.

As Lu Zhou looked at her slim body, he suddenly remembered something.

"Oh wait, one more thing."

Vera stopped her footsteps and turned around to look at him.

“I might be a bit presumptuous here, so I hope you don’t mind,” said Lu Zhou as he pulled a document from his drawer and placed it on the table. He then added, “I know that your financial situation might not be the best right now, so I inquired about a scholarship from Princeton. Take this form and fill it out. I’ll apply the scholarship for you tomorrow.”

PhD scholarships were relatively easy to get, but a master’s scholarship, especially full scholarship, was insanely difficult.

Normally speaking, if a student did not have a recommendation letter from a nutty supervisor, all the student could get was a half scholarship.

Especially in a place like Princeton where there were tons of nutty people around, it was beyond competitive.

Lu Zhou looked at Vera’s eyes which were filled with surprise and continued, “I hope you won’t delay your studies because of your financial situation. Don’t go work part-time. I’m not saying there’s anything wrong with it, but remember, your knowledge is your power. If the full scholarship isn’t enough, I can apply for a part-time teaching job for you.”

Vera took the form from Lu Zhou and lowered her head. She did not speak for a long time.

She grabbed that document tightly and her face turned red as she bowed at Lu Zhou.

“Thank you!”

Lu Zhou did not know what just happened when the little girl just ran out of his office.

He felt a bit weird as he was sure that he did not say anything to offend her.

Honestly, because Chen Yushan would always call him “insensitive”, he had been practicing his words beforehand.

Lu Zhou wondered why the little girl almost cried.

I did something good.

Hopefully, no one thinks otherwise…

That would be a pain in the ass.

Lu Zhou shook his head and decided not to think about this stuff. He took out his phone and looked at the time.

It was lunchtime.

He stretched and stood up from his office chair. He then looked at the finished project goal outline and could not help but smile.

Hail, also known as the Collatz conjecture, the legendary mathematical black hole! It was like a black hole that contained all natural numbers.

The general view of the mathematics community was that they were far from solving this problem. However, since Goldbach’s conjecture which also created strong theoretical tools was solved, Lu Zhou felt like it was time to challenge it.

He thought about this challenging problem and felt full of energy.

As expected, mathematics is more interesting.

Chapter 264

In the same afternoon, Lu Zhou drove his Ford Explorer SUV to Philadelphia Airport.

He stopped his car and walked inside the airport. From far away, he saw a little girl wearing a hat while she dragged a suitcase behind her.

Lu Zhou instantly recognized Xiao Tong. He walked over and patted her shoulder from behind.

“Hey.”

“Ah!”

Xiao Tong was surprised by the sudden tap.

She turned around and when she saw Lu Zhou, she was relieved but she still gave him a dirty look.

“Did you know that I nearly got a heart attack!”

Lu Zhou only wanted to give her a surprise. He had not expected her reaction.

I see you still treat me like this.

Don’t know if you’re going to transition smoothly into university life…

After Lu Zhou picked up Xiao Tong, they did not stay at the airport for long. He took her to the parking lot and was about to introduce her to his favorite car when Xiao Tong wandered around.

Lu Zhou was curious about what she was looking for and he asked, “What are you looking at?”

When Xiao Tong did not see what she expected, she asked, “Brother, why are you the only one picking me up?”

Lu Zhou, "…?"

Do you want a security guard or what?

Lu Zhou never realized what Xiao Tong was talking about.

Xiao Tong got in the backseat and did not wear her seatbelt. She started to curiously touch the interior of the car.

She suddenly said to her brother who was in the driver's seat, "Brother, are we going directly to Princeton?"

"Princeton isn't fun. Let's go shopping in Philadelphia," said Lu Zhou. He started the car but did not drive yet. Instead, he took out his phone and sent Chen Yushan a message.

"Oh…" said Xiao Tong. She then added with a sad tone, "But I want to go to Princeton."

Lu Zhou said, "There's nothing fun about that place."

"It's not all about fun. Dad and mom told me to see if you're taking care of yourself," said Xiao Tong. She then poked her head to the front seat and said, "Oh, and I have to inspect if you have found yourself a pretty girlfriend."

What is this?

So my parents sent you to spy on me?

Lu Zhou smiled and shook his head. However, his heart was full of warmth.

Even though he was in a foreign country, every time he thought about his family who cared for him from thousands of miles away, it made him felt less lonely.

“I’m taking care of myself well, as for a girlfriend… Tell them not to worry about it.”

Xiao Tong said, “Hey, it’s not up to you, I’m the one inspecting.”

“Ok ok ok, Miss. Inspector. Please go ahead,” said Lu Zhou with a smile. He then put away his phone and stepped on the gas pedal.

He was not familiar with Philadelphia as he had only been there a handful of times.

Fortunately, he had a friend that went to school here, who could show them around town.

However, he would owe Chen Yushan one.

…

The University of Pennsylvania was not far from the airport. Lu Zhou stopped the car in a nearby cafe and quickly saw Chen Yushan who was waving her hand at them.

Surprisingly, Chen Yushan was not alone.

Next to her, in a red and black summer dress, was Han Mengqi. If it was not because of the contrast between Han Mengqi’s depressed look and Chen Yushan’s excited look, they would really look like sisters.

Speaking of which, Lu Zhou had not seen his student since he went to CERN to participate in the European Research Summit. He had not expected to see her on the other side of the Pacific Ocean.

Lu Zhou was not too sure, so he called her name.

“Han Mengqi?”

When Han Mengqi heard the familiar voice, she suddenly looked up.

Then, she was stunned.

“Teacher?!”

When Han Mengqi saw the familiar face, her eyes popped wide opened.

Her cousin said that they were going to see a friend, but she did not mention who.

She did not expect that the friend was Lu Zhou?!

Suddenly, she remembered that she did not dress up at all. Not only did she not have makeup on, but she did not even brush her hair. Her cheeks turned red.

Suddenly, she noticed that there was a girl standing next to Lu Zhou, who was looking at her curiously.

Han Mengqi, who was somewhat confused, calmed down and hid behind her cousin.

Xiao Tong: ???

Lu Zhou did not notice Han Mengqi’s change of emotion. He greeted Chen Yushan and said to Han Mengqi, “I haven’t seen you in forever… When did you come to Philadelphia? I didn’t even know.”

It had been a year since Lu Zhou last saw Han Mengqi, but she did not grow taller at all.

Obviously, Mengqi had not been eating well since Lu Zhou left.

Since Han Mengqi had her head down and did not speak, Lu Zhou felt a little awkward.

Chen Yushan, who was standing next to her, sighed and patted her cousin's shoulder.

"My lovely cousin was in a bad mood, so she came out of the house with me."

Han Mengqi whispered, "Master, sorry for disappointing you."

This was the second time that Lu Zhou nearly chocked today.

It was like Xiao Tong heard a big piece of news. She looked at her brother and asked, "Master? What is this situation?"

Lu Zhou knocked his dirty-minded sister on the head and said, "What do you mean what situation is this? Didn't I tell you that I did some tutoring during my second year?"

Xiao Tong gasped.

Han Mengqi looked at Lu Zhou and Xiao Tong with confusion. She felt the relationship dynamic between the two was not what she expected.

Lu Zhou looked at her. He paused for a moment before saying, "I know what you're feeling right now, but I hope you're not discouraged. You did really well. When I first started to teach you, you couldn't even do basic elliptic equations. By the end, you were getting 130 on your tests consistently. I'm sure you noticed the improvement. If you didn't get in…"

Han Mengqi smiled and said, "I passed the requirement, but there were too many people applying for mathematics major this year…"

The f*ck, the mathematics department of the University of Jin Ling is popular now?

Lu Zhou was surprised that Han Mengqi did not get into mathematics.

The mathematics department of the University of Jin Ling rejects people?

When Dean Qin mentioned about the sudden influx in popularity, Lu Zhou thought that he was joking. It turned out that Dean Qin was not joking after all.

It seemed that he underestimated the influence of his “Mini Nobel Prize” and Goldbach’s conjecture.

Honestly speaking, Kai University, Shuimu University, Yan University, and Shan University, all had better mathematics departments than the University of Jin Ling. The strength of the University of Jin Ling was physics. However, most undergraduate students did not know this fact.

I feel like I screwed over a lot of people…

But now is obviously not the time to point that out.

Lu Zhou immediately asked, “Then which course did you transfer to?”

Han Mengqi nearly cried, “Applied chemistry…”

Chapter 265

Still, the happiest was Xiao Tong. She had infinite energy, and she never stopped talking.

Due to Xiao Tong’s extroverted personality, she made friends with Chen Yushan and Meng Qi easily. They exchanged Wechat and QQ details in the fast food restaurant.

After Xiao Tong heard that Meng Qi also played Honor of Kings, she stopped eating her hamburger and opened the game on her phone.

Han Mengqi looked at Xiao Tong's phone and said, "You also play Honor of Kings?"

Xiao Tong said proudly, "I do, I do. I'm great."

Interested, Han Mengqi asked, "What rank are you?"

"Diamond!" said Xiao Tong. She added confidently, "But right now I'm still at the bronze rank, but I know that I deserve to be at the diamond. It's only a matter of time."

Han Mengqi: "…"

Chen Yushan bit her straw and smiled at the two's conversation, whereas Lu Zhou rolled his eyes.

Lu Zhou thought, "Without doubt, Xiao Tong is definitely diamond in "stubbornness".

As for other areas, she's a bit behind…

…

After Xiao Tong came, Lu Zhou's life did not undergo drastic changes. The only difference was that he had one more person to take care of, and he started to sleep on the sofa instead of the bed.

His original plan after returning to Princeton was to move out of his student apartment, but he still had not found a new place yet.

He had two choices. One was the teachers' apartment of the Princeton Institute for Advanced Study. The other was a two-story mansion with a front yard and garage located between Princeton Institute for Advanced Study and the main campus.

Although it said it was a mansion, it was only to sound more elegant. This kind of small cottage was very common in America. Lu Zhou had even seen them in American TV shows before. The average price was between $200,000 and $300,000 USD, and the rest was not expensive.

Lu Zhou wanted to choose the latter because of the convenient parking spot, but the owner was a stubborn New Yorker who only wanted to sell and not rent. Lu Zhou only had $500,000 USD right now, and even though he had the money, he did not want to buy a house just for a few years.

After all, after a few years, he would return to China.

Although Lu Zhou wanted to consider other houses, they were either a bad fit or rented out already, so he put the situation of him moving on hold.

Fortunately, Xiao Tong was not picky about where she lived. She would ask Lu Zhou to drive her to Philadelphia and she would hang out with Chen Yushan. Other than that, she did not bother Lu Zhou much.

Lu Zhou's relaxed lifestyle would continue until the end of August when the new issue of Nature Chemistry would be released.

…

At the end of August, the Rio Olympics had just ended. The Olympics was still in the news when a piece of technology-related news quietly went on the newspapers.

The reason for this was because it was a thesis published in Nature.

The title was simple, but it grabbed the attention of the entire world.

It was not because of Lu Zhou.

Most people would not bat an eye if someone claimed to have come up with a new PDMS material that could solve the lithium dendrites problem.

The reason was that this was a Nature thesis!

The quiet and calm materials science field was suddenly attacked by a storm.

Although this was not the first time the materials science community was shocked by a lithium battery "breakthrough", this time was different. The reason was that the reviewer was Professor Bawendi, and according to Bawendi, he had repeated the experiment and received amazing results.

This was obviously breaking news.

Within a few days of the thesis publication, the thesis went into Science highlights.

The highlights were similar to re-tweeting.

For example, when a person published a thesis in journal A and made a major breakthrough, journal B would then find an expert in the field of the thesis to summarize the thesis and then post it in their journal.

This type of occurrence was common in the fields of biology and chemistry. It was nothing rare. However, a Nature thesis highlighted by Science was quite rare.

The academic community was almost fanatic.

If this thesis was real, then most of them would not suffer loses. Rather, they would receive gains.

The reason was simple. The battery industry was mainly focused on the problem of lithium dendrites. If the problem of lithium dendrites was solved, then there would be a large amount of research and development funds flooding into this field.

Even though some laboratories and experiments researching negative electrode materials would die off, more funds and grants would come in.

Therefore, within a week, almost 80% of lithium battery laboratories had ran repeated experiments on this thesis.

This grand occasion caught the attention of the press.

A reporter from the Columbia Radio and Television Science Technology section gave an interview to Professor Kerr from Cornell University.

Coincidentally, when the Colombian reporter arrived, Professor Kerr's laboratory was doing the final stages of the experiment.

Professor Kerr answered the questions seriously.

"… Our research team is repeating the experiment. If this isn't an accident, then this technology will undoubtedly change the face of the entire industry… "

"… Because neither the lithium-sulfur battery nor the lithium-air battery can solve the problem of dendrites. If the problem of lithium dendrite can be solved on the negative electrode material, we don't even have to make drastic changes to the battery design. We just have to change the negative electrode material."

The reporter's eyes sparkled with excitement when he heard Professor Kerr's answer.

There was no doubt that he was interviewing a piece of breaking news.

"But Professor Kerr, the feedback we received from the IBM lithium battery project group was pessimistic about this technology. What do you think about this?"

Professor Kerr thought and said, “This situation is normal. Every once in a while, a laboratory would claim to have solved the problem of lithium dendrites. It is necessary to be cautious. Honestly speaking, I’m still suspicious, because the ideas and solutions presented by the author aren’t new.”

The reporter immediately asked, “Why do you say this?”

Professor Kerr, “Because our current practice is to increase the viscosity of the electrolyte, or even use solid materials. To make a carbon material structure on the lithium negative electrode, the lithium metal has to be limited in shape after discharge. Therefore, when charging it, it can ensure that the negative electrode structure does not collapse after all the lithium enters the positive electrode. The design of the coating film used by Professor Lu on the negative electrode material has actually been tried many times in many laboratories 20 years ago. And…”

Reporter, “And?”

Professor Kerr shrugged and said, “And he’s a mathematics professor. I don’t know about this new computational materials field, but I also know that building models often isn’t enough.”

Suddenly, a cheering sound came from the laboratory.

Professor Kerr and the reporter were stunned.

Reporter, “What happened?”

Professor Kerr looked at his assistant before he turned to look at the reporter with a strange look.

“I don’t know… I think the experiment is successful?”

Chapter 266

“Incredible…”

Professor Kerr stood next to the computer and looked at the images generated. He could not believe what he was seeing.

Although he saw similar images in Nature Chemistry, it was different seeing the images in person.

The Colombian reporter standing behind him was confused. He did not know what the researchers were happy about.

Even though he was witnessing a great moment, he could not understand what the SEM images meant.

Out of confusion, he spoke out loud, “Professor?”

Professor Kerr looked at the reporter with a fascinated expression.

“What?”

He was very happy, very very happy.

If the lithium dendrites problem were solved, his laboratory would directly benefit from it. He believed that with one more MRS meeting, his laboratory would receive tens or even hundreds of millions of USD in investment.

The industry would reinvest into lithium batteries.

The reporter gulped and asked, “What is the situation?”

Professor Kerr looked at him with a positive look and said, “I can now responsibly tell you that it was successful.”

Perhaps he thought his statement was not shocking enough, so he paused for a second before he continued, “In half a year, maybe a year, you’ll be able to use your phone for a week straight. In a few years, you’ll be able to drive a Tesla car for thousands of miles… Trust me, I’m definitely a lot more reliable than the media.”

Although he was slightly exaggerating, he was not far from reality.

Lithium-ion batteries were mainly based on graphite anodes. The theoretical specific capacity of graphite could be calculated by the product LiC6, which was 372 mAh/g. This figure could be increased in the lab to 747 mAh/g with graphene technology.

As for the theoretical specific energy capacity of lithium?

It was 3860mAh/g.

Although these were all theoretical figures, it was still a good ballpark.

The lithium metal and polydimethylsiloxane were also affordable.

…

[Congratulations, User, for completing the reward mission!]

[Mission completion details are as follows: Solve the problem of lithium dendrites]

[Final mission evaluation: None (Reward missions have no evaluation)]

[Mission reward: 70,000 materials science experience points, 10,000 biochemistry experience points, debris.]

In a pure white system space…

Lu Zhou looked at the experience points on the holographic panel and could not help but smirk.

No wonder this thing was high tech. Even a small battery brought him a considerable amount of experience points.

The amount would not be much for mathematics, but since it was on biochemistry and materials science, Lu Zhou felt like he was sitting on a rocket.

This was probably the most enjoyable reward mission he had ever done.

“System, open my characteristic panel!”

A white light flashed and Lu Zhou’s personal data appeared.

[

A. Mathematics: Level 5 (54,000/300,000)

B. Physics: Level 3 (53,100/100,000)

C. Biochemistry: Level 2 (4,000/50,000)

D. Engineering: Level 1 (0/10,000)

E. Materials science: Level 3 (13,000/100,000)

F. Energy science: Level 1 (0/10,000)

G. Information science: Level 1 (3,000/10,000)

General points: 2,475

]

Materials science was now Level 3, same as physics. Biochemistry also leveled up, now Level 2.

However, even though Lu Zhou read a lot of materials science textbooks, he was not an expert in this field. Therefore, he did not feel that his knowledge had increased from the effects of leveling up.

At least, it did not feel like when he leveled up in mathematics.

Maybe, biochem and material sci were not as dependent on “inspiration”.

After Lu Zhou closed his characteristic panel, he looked over to his inventory.

Debris No. 2 was in the inventory. It looked like a black cube, similar to a Rubik’s cube. It had a very fascinating appearance.

Lu Zhou could tell that this was different than the battery debris. Lu Zhou took it out from the inventory and looked at it for a long time. He had no idea what it was.

High tech toy?

It doesn’t look like it.

There’s no way it is a weapon.

The most fascinating thing was that there were no markings at all on this cube. Lu Zhou almost thought that there was something wrong with it.

Lu Zhou put this thing aside and looked at his mission panel.

The reward mission was completed.

Now it was his “multiple choice question” time.

I hope that the system will give me some interesting missions.

Lu Zhou took a deep breath and pressed the mission button.

[

Mission 1: Keep improving

Description: The technology of lithium anode materials is not only modified by the polydimethylsiloxane film, but also the carbon nanospheres with flat cross-section folds.

Requirements: Successfully prepare the product in a laboratory, and write a thesis.

Reward: 50,000 materials science experience points. 500 general points. 1 chance of lucky draw (85% garbage, 9% sample, 6% blueprints)

]

[

Mission 2: Even a great job needs economic support

Description: The laboratory is like a black hole. Before the project is completed, it sucks in money endlessly. Maybe you are confident in your work, but your partners might not be. Instead of being a liability, try to raise money.

Requirements: From the beginning of the mission until the end of the year (December 31, 2016), calculate the user's gain in assets.

Reward: 1-??? free experience points ($1000 USD = 1 experience point). 500 General points. One lucky draw ticket (80% garbage, 10% special, 7% samples, 3% blueprints).

]

[

Mission 3: Research isn't done by one person

Description: The value of a top researcher is not only how much research he has done, but also how much talents he has cultivated. Although many scholars have passed away, they have left their influence and changed the future.

Requirements: Help at least one student complete their master's thesis.

Reward: 1-??? experience points (experience point subject depends on the academic value of thesis and student participation). 500 general points. One lucky draw ticket (50% garbage, 30% samples, 20% blueprints)

]

Lu Zhou stared at these three missions for a long time.

The carbon nanospheres with cross sections were important, but it was not crucial.

For the advanced civilizations that created this defect, the folds were unacceptable. Still, for any battery manufacturer on earth, the folds were negligible.

After all, the modified polydimethylsiloxane film determined the vitality of the product while the former only determined the market competitiveness of the product.

The superiority of the lithium anode material would completely destroy the graphite anodes.

The most important thing was that, even if Lu Zhou knew the molecular structure and three-dimensional conceptual image, those hollow carbon nanospheres could not be created.

For these two reasons, Mission 1 could be eliminated.

As for Mission 3, it was attractive, but it was very difficult to accomplish in the short term.

Even though the Group Structure Method paved the way for many propositions in additive number theory, the Collatz conjecture was beyond the scopes of the ability of Lu Zhou's students. Even for Vera…

Although Lu Zhou could do it himself, he remembered that the experience points were determined by the student's participation. He could solve a major conjecture, but the experience points would be too low.

After some consideration, Lu Zhou chose Mission 2.

It was the end of August, not far from the end of the year. Although the 1000:1 conversion ratio was a bit low, Lu Zhou thought about his patents and how he could still earn a lot of experience points.

The only thing that he was curious about was what the 10% special was.

He had such a small probability of winning it…

Chapter 267

Professor Kerr, who was interviewed by a Colombian reporter, spoke in an excited tone.

“In half a year, maybe a year, you’ll be able to use your phone for a week straight. In a few years, you’ll be able to drive a Tesla car thousands of miles… Trust me, I’m definitely a lot more reliable than the media.”

The interview continued.

Two minutes passed before the channel went onto the next piece of news.

When Lu Zhou turned around, he saw his sister staring at him with shining eyes.

“What?”

Xiao Tong asked excitedly, “Bro! What is the patent about?”

Oh, you’re pretty smart.

So you know what a patent is?

Lu Zhou looked at his sister and said, “It’s related to lithium batteries, materials science. You won’t understand the specifics.”

“Patent?” Xiao Tong’s eyes lit up as she said, “Is it worth a lot?”

Greedy girl!

All you think about is money when knowledge is real wealth!

Lu Zhou shook his head and smiled.

Honestly speaking, he did not know how much the patent was worth.

However, since the patent was the key to the technology, it should be worth a lot.

“Do you want to know?”

Xiao Tong nodded and said, “Yes!”

“Go read some books if you want to know. In the future, you can manage my finances and you’ll know how much it’s worth.”

“I’ll give you a nice salary.”

Lu Zhou laughed as Xiao Tong protested. He then turned around and walked to his computer desk.

Humblebragging is addictive.

…

Originally Lu Zhou thought that one thesis would not change his life that much.

When he proved Goldbach’s conjecture and won the Crafoord Prize, even though the media continuously reported his name, his personal life did not experience much change. At least there was no one shaking his hand in public.

This was also why Lu Zhou did not reject media interviews.

However, this thesis in Nature was different.

The general public did not even know the difference between lithium batteries and lithium ion batteries. Therefore, this thesis was not as sensational as the Goldbach's conjecture. Still, for the entire battery industry, this thesis had produced a crazy sensational effect…

Although no one asked for his signature on the street, his phone was ringing non-stop.

"Hello, Professor Lu Zhou. We are Jermason Nano Materials Co from Silicon Valley. We're very interested in the modified PDMS film technology you published in Nature Chemistry. Are you interested in collaborating with our laboratory?"

Another collaboration offer…

Lu Zhou was annoyed.

"Sorry, I'm busy. I still have to give tasks to my students. If it's something important, try to say it a little more clearly. If not, I'll hang up."

When the other side heard that Lu Zhou was being impatient, they started to talk quickly.

"The thing is that we have an R&D agreement with Umicore on electrode materials. If you want to sell your parents, you can get a higher price through our R&D agreement."

Lu Zhou hung up the phone and threw it on the sofa. He then walked to his kitchen and took out two eggs.

Since Nature and Science placed highlights on his thesis, this was the 16th call he received.

Honestly, if the industry recognized this technology, Lu Zhou was willing to license it to a reliable company for production and to receive a certain return from it.

After all, he could not do the production himself. Laboratory experiments and industrial production were two completely different things. Even if the patent could give him a certain cost advantage, Lu

Zhou knew that his inexperience in raw material channels, product development, product marketing, and etc was unsolvable.

He would rather spend his time doing something else.

The best choice was to license the patent to a reputable company and then charge them a patent fee.

However, he could consider registering an offshore company in a place like the Caymans and hired some experts to manage his patent.

He should forget about factory production.

What bothered Lu Zhou the most was that most of the phone calls were from “MIT XX Materials Science Lab”, or “Silicon Valley Materials Science Research”, and most of them wanted to discuss patent cooperation.

Yet, when he asked about the contents of the cooperation, most of them wanted to be a middle man on his patent.

Lu Zhou was not dumb. He knew that the patent rights was in his hands.

He knew the value of his patent. When the time arrived, he would negotiate with an enterprise directly. He did not have to bother dealing with a laboratory.

Xiao Tong rubbed her eyes and walked out of the bedroom in her pajamas. She asked while yawning, “Bro, who were you calling?”

“Nothing, insurance seller.”

Lu Zhou made two bacon and egg sandwiches. He placed them on the table and poured Xiao Tong a glass of milk.

Xiao Tong sat down on the dining table, She tilted her head and said, “But I heard the word ‘patent’.”

This kid, you’re not even fully awake yet, how did you hear that?

Lu Zhou: “…”

Xiao Tong proposed, “If you can’t decide, why don’t you ask Sister Shan Shan? She’s an MBA student at the University of Pennsylvania, this thing should be easy for her.”

Lu Zhou looked at Xiao Tong and asked, “How do you know about her major?”

He remembered that he had never told Xiao Tong what Chen Yushan studied.

Xiao Tong rolled her eyes and said, “I talk to her on WeChat. Didn’t I tell you I’m applying for a finance major? Sister Shan Shan even gave me some useful advice.”

Lu Zhou, “I’ll ask her if it’s necessary.”

Xiao Tong ate her delicious sandwich and sighed. She chewed and said, “That’s why, a real man has to take lead, otherwise when the time comes… Hey! What are you doing, it hurts!”

Xiao Tong was knocked on the head. She looked up at Lu Zhou.

Lu Zhou did not use any force at all, so he knew Xiao Tong was pretending.

“What kind of pervert mind do you have?”

Lu Zhou, who just made breakfast for Xiao Tong, left her alone and walked into the kitchen.

He took his sandwich and sat down at his computer desk. He would then routinely checked his email.

Coincidentally, there was one unread email in his inbox.

Lu Zhou guessed that it was probably from some random laboratory. He nearly deleted the email.

MRS meeting invitation

His eyebrows jumped, a look of interest appeared on his face.

Interesting…

Chapter 268

This type of situation would not be seen at mathematics conferences.

In some sense, the style of mathematics was different than other disciplines.

As a mathematics professor, Lu Zhou was not interested in catfighting.

However, this conference was still an opportunity for him.

Also, since MRS sent him an invitation, there must have been a lot of people interested in his research.

Of course, Lu Zhou did not forget who he was.

He was a mathematics professor.

No matter what, he was still a mathematician. He could not let his mathematics level fall behind because that level determined the upper limit level of his other subjects.

On the last day of August, Lu Zhou sat in his office at the Institute of Advanced Studies. He was testing his two other students.

10 questions, two-hour limit.

After handing them the test, Lu Zhou sat in his chair and picked up a book.

Time slowly passed by…

When Lu Zhou's phone rang, he closed the book and looked at the two people who were struggling with the test.

"Time's up, let me see the results of your studies for the past six weeks."

Hardy put down his pen reluctantly. Qin Yue did the same. They were both nervous.

"Professor, the time frame you gave was way too short," said Hardy. He got up and handed Lu Zhou the paper as he said, "I can definitely solve another question in 10 minutes."

"The time frame isn't important. I'm not asking you guys to solve every question. I want to test what you know."

Lu Zhou took the two test papers and looked at the questions.

For him, these were all very simple questions. He could ballpark the answer in his head.

Qin Yue was up to question six, and he was halfway through question seven. His thought process was correct.

In general, not bad. This was what Lu Zhou expected.

Hardy did five. He had barely completed the requirement. This was somewhat unexpected.

Lu Zhou thought that there would at least be one person failing the test and it would most likely be Hardy because he was the most impetuous student out of the three.

However, it seemed that all three of them were qualified to participate in his research project.

Lu Zhou placed the test papers aside. He then cleared his throat and said, “First of all, congratulations on joining my research project.”

When Hardy heard this, his eyes widened in surprise. Qin Yue also had a strange expression.

Lu Zhou said in a relaxed tone, “My passing requirement is five questions. If you could complete five questions, that means you followed my task and didn’t waste the past month and a half… ”

“… As for the details of our research project, I’ll explain it shortly.”

Lu Zhou took a sip of his coffee before he stood up. He then walked over to his whiteboard and picked up a marker.

Vera was sitting in the corner of the office, quietly reading documents. She stopped and as the other students, she looked at the whiteboard.

“Six weeks ago, I told you guys that the research project is related to hail.”

“If you know your additive number theory, then you guys have probably already guessed what the research project is.”

Qin Yue and Hardy nodded.

As per what Lu Zhou said, they already guessed what the research project was.

As for Vera, she obviously knew about it since she joined the research project two weeks ago.

Lu Zhou paused for a second before he continued, “The so-called Hail conjecture, also known as the Collatz conjecture, or 3n+1 problem, describes that for any positive integer N, after continuous iteration of fokn(n) = 1, it would fall into the trap of {4,2,1}…”

“… Simply speaking, start with any positive integer n. Then each term is obtained from the previous term as follows: If the previous term is even, the next term is one half the previous term. If the previous term is odd, the next term is 3 times the previous term plus 1. The conjecture is that no matter what value of n, the sequence will always reach 1.”

Lu Zhou paused for a second. He then smiled and added, “It’s like a black hole.”

Hail’s conjecture was no doubt more popular than Goldbach’s conjecture.

In the 1970s, almost all of the America Universities were delving into this magical “number game”. This phenomenon was even reported in the “Washington Post”.

Of course, for most people, this was just a game of numbers, but for mathematicians, this was something deeper.

“This is a number theory problem, and one of the classics in additive number theory. But, the essence is actually a complex analysis problem!”

“… The Collatz conjecture will be your mission for the next three years. I’m not asking you guys to fully prove this conjecture, but you should all at least complete one thesis worthy of publication…”

Lu Zhou picked up the pen and wrote down an equation on the whiteboard.

[h(z^3)=h(z^6)+{h(z^2)+λh(λz^2)+λ^2h(λ^2z^2)}/3z] (where λ=e^ {2πi/3}]

When Qin Yue saw this line of equations, he took out his notebook. Even Hardy also started to pay attention.

As for Vera, she was as focused as ever.

“The community is pessimistic about this problem. In fact, the number theory community has made no progress on this problem.”

“In 1994, Professor L. Berg and G. Meindardus proved that the conjecture is equivalent to the function h(z^3), which is what I wrote on the whiteboard… ”

“… This equation placed down the first brick to solving this problem…”

Some things could not be described in words.

Lu Zhou turned around and continued to write on the whiteboard.

[$g(z)=z/2+(1-\cos\pi z)(z+1/2)/2+1/\pi(1/2-\cos\pi z)\sin\pi z+h(z)\sin 2\pi z$ satisfies: $N\subset\Phi(g)$]

[…]

Vera looked at the lines of equations and her eyes lit up.

Hardy and Qin Yue also have a thoughtful expression.

Lu Zhou finally stopped writing and placed the marker on the table. He smiled at his three students.

“This step is crucial… ”

“… If you can prove that there is an integer function h(z), for each g(z) above, each branch of Φ(g) containing a positive integer has z0∈D, so that [gok(z0)] converges. To 1…”

Lu Zhou paused for a second and looked at the three faces of anticipation. He then smiled and said in a positive tone, “Therefore, we can prove that…”

“3n+1 is true!”

Chapter 269

After some consideration, Lu Zhou decided to put her into Group B and to work on a parallel level with Hardy and Qin Yue, who were in Group A.

The groups would work independently and each of them would research on different issues involved in the proposition. Then, an exchange of ideas meeting would go on every two weeks, and a report presentation of the progress will go on every month.

This type of model was common on some large research teams. Some nutty boss would often take on many students, but putting those students into one giant group would actually decrease the efficiency of the research team.

Lu Zhou learned this from the other professors at the Princeton Institute for Advanced Study.

While Lu Zhou was assigning everyone their tasks, he heard a knocking sound from his office door.

Lu Zhou was about to open the door but Hardy stood up and walked over to the door.

The door opened, Professor Chirik stood outside.

Professor Chirik walked in with a Brazilian guy next to him. He then talked to Lu Zhou with an excited tone.

“That thesis was yours?! The one on Nature? No I mean, ‘Lu Zhou’, that’s you?”

He was too excited, so his sentences were a little incoherent. He even pronounced Lu Zhou incorrectly.

Lu Zhou was scared that this guy was going to hug him, so he took a step back and said, “Yeah, why?”

Is there another Professor Lu Zhou at Princeton?

Professor Chirik did not hug him, but he took a deep breath and calmed down.

Then, he spoke with disbelief.

“God… You’re an absolute genius!”

This flattery caught Lu Zhou off guard.

Lu Zhou smiled embarrassedly as he said, “I’m not god…”

Professor Chirik, who was out of breath, nearly choked on Lu Zhou’s words.

He said, “It’s just a figure of speech, I’m not really saying you are god… Anyway, how did you do it? Analytically calculate the materials? Estimate a range?”

What surprised Professor Chirik was not how the modified PDMS produced such a magical effect, but how Professor Lu Zhou was the one to discover this material.

Although computational materials science had made significant progress as a field, major research results were unheard of. The mainstream practice was to repeatedly do experiments, then analyze the material, then do more experiments.

It was not just Chirik. Many people were curious about how Lu Zhou discovered this product.

Lu Zhou knew exactly what he was curious about, so he was not surprised.

In fact, he did learn some useful techniques when making mathematical models.

However, his material was discovered with a scanner gun…

Lu Zhou thought for a second before he said, “I can’t explain it to you easily, plus I’m arranging tasks for my students. MRS has already sent me an invitation letter, asking me to report on this issue. If you’re interested, come to my report.”

“MRS? Rest assured, I won’t miss it! Honestly, if I wasn’t so busy these days, I’d come and study under you,” said Professor Chirik said with a half-joking tone.

Lu Zhou obviously did not take this seriously. Instead, he smiled and said, “If you’re interested in number theory, I don’t mind accepting a professor as a PhD student, but I haven’t planned the materials science course yet. Honestly, I don’t know how to appropriately develop this course.”

“In any case, Princeton ‘birthed’ another billionaire,” said Princeton Chirik as he patted Lu Zhou’s arm. He then said, “I know you mathematics professors aren’t interested in money, but regardless, let me buy you a drink. Don’t forget, I was the one that lent you the laboratory!”

Billionaire was a bit exaggerating, but multi-millionaire was no problem.

Lu Zhou smiled and said, “For sure.”

Professor Chirik then left.

The three students stared at Lu Zhou’s back.

When Lu Zhou turned around, he was stunned and he waved his hand.

“Why are you guys looking at me, go do your stuff.”

Qin Yue and Hardy exchanged glances.

Although they did not know what their boss was talking about, they knew what a billionaire was.

They felt like…

They had chosen an incredible boss.

…

The other side of the Pacific Ocean.

At the carbon nanomaterials laboratory in the University of Jin Ling, the experiment had entered the second half stage.

Under Professor Li Rongen’s direction, Qian Zhongming placed the battery sample under an electron microscope and connected it to the Bk-6808 battery tester.

As the image data came through, Professor Li Rongen’s expression became more and more serious.

A long time passed by…

He stared at the computer screen and suddenly, he broke into a smile.

“Impressive…”

Professor Li Rongen shook his head and took off his glasses. He had only said two words but his heart was beating non-stop.

If it was a normal lithium battery, even with a tough film, the charging process would cause the battery to start generating dead lithium, due to the tip nucleation effect.

However, this unremarkable modified PDMS material was able to inhibit the growing of lithium dendrites by several uncomplicated processes, like the hydrofluoric acid treatment of polydimethylsiloxane and the final spin coating method.

This caused him to think back to 2013 when the ABX3 crystalline perovskite photovoltaic material was rated as one of the world's top ten scientific breakthroughs. Back then, it had greatly progressed the solar panel industry.

At that time, people were surprised. The steps to prepare the material was too simple. It was basically to mix the two salts, stir it, spin it, then dry it off.

This type of PDMS material was the same.

The production process was not complicated, and the raw materials that were needed were inexpensive.

This was exactly what the industry needed.

Liu Bo, who stood next to Qian Zhongming, could not help but speak emotionally.

"That guy really is a genius…"

"Yeah," Qian Zhongming pushed his glasses and nodded with approval, "Really is a genius."

Qian Zhongming remembered how he was the one to teach Lu Zhou how to use the equipment, yet he could not help but wonder.

Is computational materials science really so magical?

Maybe the next time I see him, I'll have to ask him to teach me mathematics.

Professor Li Rongen looked at the images produced by the electron microscope. He suddenly said, "This year I plan on going to the MRS Conference at America, who wants to come?"

Liu Bo and Qian Zhongming both put their hand up.

Neither of them wanted to miss the conference.

Professor Li shook his head. With a smile, he said, "Okay then, we're all going."

Chapter 270

"Yeah, you're right, you're old now. Oh yeah, about mom… "

Xiao Tong said, "Don't worry about it, I'll tell mom not to worry!"

Lu Zhou nodded and joked, "Then thank you, Miss Inspector!"

After he bade farewell to Xiao Tong, Lu Zhou stood on the sidewalk and watched her walked into the airport.

Xiao Tong stopped at the entrance of the airport. She then looked back and waved her hands.

Lu Zhou smiled at his sister and waved back.

Coincidentally, while he was waving, an acquaintance approached him.

Molina was dragging her suitcase out of the airport when she noticed Lu Zhou waving. She was stunned.

Obviously, she had not expected to see Lu Zhou because she did not tell anyone which flight she was taking.

She clearly misunderstood the situation.

Molina had a smirk on her lips as she walked toward Lu Zhou.

Lu Zhou noticed her as well.

He was about to say hello, but she spoke first.

“Thanks, I really didn’t expect you to come to pick me up.”

Molina walked past Lu Zhou and put her suitcase into Lu Zhou’s car trunk.

She then looked at him and with her blonde hair gently swaying, she said, “Since you gave me such a nice surprise, I won’t ask where you got my flight information.”

She opened the car seat and sat on the passenger seat.

Lu Zhou looked at her and did not react. Molina was stunned. She frowned and asked, “Is there a problem?”

Lu Zhou shook his head and said, “No problem, I’m going back to Princeton anyway…”

Although Lu Zhou sounded a bit weird, Molina was in a good mood so she did not care.

Lu Zhou opened the door and sat in the driver’s seat. He was about to start the car but he hesitated.

Although it was not a big deal to pick someone up, and Molina had picked him up before, Lu Zhou did not want to have any misunderstandings so he felt it was necessary to clarify.

Therefore, before he started the car, he said, “By the way, I was actually here to send my sister back to China.”

Molina, “…?”

…

After Xiao Tong returned to China, Lu Zhou’s life returned to normal again.

Over the next few days, he would either be at the Institute for Advanced Study, Frick Chemistry Laboratory, or his apartment.

In order to build a logically self-consistent mathematical model, and to complete his PowerPoint, he needed to do more experiments.

Although this sounded cumbersome, it was not that bad.

For a mathematician, especially one who was involved in mathematical physics, building the model after obtaining the results from the experiments was a piece of cake.

Of course, this was not only for those materials scientists that did not understand mathematics.

A rigor mathematical model could accurately predict the physical properties of an untested material. It could also provide a reference to the experimenter.

For example, it could narrow down the scope of the experiment.

Also, Lu Zhou needed to perform multiple Coulomb cycles on this sample in order to promote the technology. He had to compare the performance of the two materials by using a graphite negative electrode as the control group.

The academic community was concerned with breakthroughs. The market was concerned with a series of production issues such as safety and costs. More results meant a higher bargaining power for Lu Zhou.

The only thing that annoyed him was that the experiments took a long time. As for the experiment that required expensive types of equipment, he had to personally keep an eye on the progress.

Normally a boss would not personally do this stuff. Instead, they would delegate it to someone down under. However, Lu Zhou was a mathematics professor. Since all of his students were in the field of mathematics, they could not help him at all.

Thankfully, Professor Chirik solved this problem for him.

He had a lot of students and except for a few who often did experiments and attended conferences, most of them were free.

When Lu Zhou heard that he had more than a dozen master's students, he nearly choked.

"A dozen? How can you manage so many at once?"

Professor Chirik said nonchalantly, "Find a few talented ones and train them. For the rest, don't bother with them."

Lu Zhou: "…"

Sure enough, a good scholar doesn't mean you are a good supervisor.

This guy must've sent offers out like candies, and ruined the academic careers of some students.

Lu Zhou suddenly wondered if as a boss, he was a bit too responsible…

…

In any case, he had found his helper.

The next day, Professor Chirik brought his student over to Lu Zhou.

This young student was tall and well-built. It did not look like he did research. Instead, he looked like he was a rugby player.

However, Lu Zhou was not too weirded out.

Professor Chirik walked in and said, “This is Connie, the one I told you about. He’s well versed in computer science, organic chemistry, and applied mathematics, he should be able to help you.”

That Connie guy warmly reached out his hand and looked at Lu Zhou with worship reflected in his eyes.

“Hello, Professor Lu, very nice to meet you!”

Lu Zhou shook his hand and smiled.

“Hello.”

Professor Chirik patted Connie’s shoulder and said, “Okay, Connie, I already explained what you need to do. You’re facing the top computational materials science professor at Princeton, so study hard, and don’t humiliate me.”

Connie smiled and said, “Rest assured professor, I won’t let you down.”

Lu Zhou coughed and said, “I’m not exactly the top, I just did a little work.”

“No no no, don’t need to be humble,” said Professor Chirik as he waved his hand. He then said with a serious tone, “There have been many theses published in Nature over the past decade, but not many have caused such a sensation. It’s no exaggeration to say that you have changed the industry personally. The work you did was undoubtedly great.”

Lu Zhou smiled and did not respond.

It would be up to the world to decide if it was great.

With the addition of Connie, Lu Zhou was finally freed from the tedious and boring repetitive work.

Maybe it was because this guy had been benched by Professor Chirik for too long, he worked quite hard for Lu Zhou.

No matter how late he worked, he would still arrive at the laboratory at six o’clock the next morning.

Two and a half busy months passed by quickly.

Finally, before Black Friday in November, Lu Zhou made six samples of lithium batteries after completing the Coulomb cycle 1000-2000 times.

The results were gratifying. Other than a small dent in the negative electrode material, there were no lithium dendrites forming.

The No. 7 control group sample did not use the PDMS material. The copper foil was already filled with lithium dendrites, and the battery was completely destroyed. It was obvious how amazing Lu Zhou’s research results were.

At last, he finished all of the preparations. As for now, he just had to wait for the conference to begin…