

Scholar 91

Chapter 91

Lu Zhou coughed softly before he answered, "It's the same..."

There haven't been any significant improvements so far, but the update hasn't been released yet, so who knows?

What if the app fails...

"Professor Tang, why did you find me?"

Lu Zhou quickly opened the subject.

"I'm not the one finding you," said Professor Tang with a laugh. He then added, "It's Professor Li. He recently ran into a bottleneck in his scientific research and wanted me to find an expert to help him. I actually wanted to help him myself, but I'm too busy with my own projects. I thought about it for a bit. Most of the PhD students and master's students that I know aren't as well versed in functions analysis as you. But I don't know if Professor Li would be satisfied."

Professor Li immediately said with a smile, "Haha, why did you say that? You sent your number one student in the mathematical department to me. I'm going to welcome him with both arms open obviously!"

Ah, you're over-complimenting me!

Lu Zhou was still modest on the surface and so, he smiled and said, "Professor, you're too kind. I'm not the number one in the department."

The two master's students who were researching did not say anything but they rolled their eyes.

F*ck, why are you humble-bragging?

Piece of sh*t!

“Okay, stop being so humble,” said Professor Tang who could no longer stand it. He continued, “You solved a world-class mathematics problem. Be real with us. Are you doing this project? I can find someone else.”

“Yes! Of course,” said Lu Zhou as he immediately agreed. He then asked, “Can I ask what this project is about?”

There were not that many opportunities for undergraduate students to participate in research projects, especially for the mathematical department where the research funding was tight. Thus, research projects were in high demand. If a normal undergraduate student wanted to do work in a laboratory, they would have to beg the professor.

Of course, there were not that many scientific research projects in the mathematics department. However, because of the usefulness of mathematics, a lot of mathematics students had opportunities to join projects from other departments.

The most demanding projects were from the physics department.

Everyone knew that the physics department in the University of Jin Ling had the most research projects, and the most funding. From nuclear physics to semiconductor materials, from national level research projects to company collaboration projects. All of the projects produced valuable results!

Due to this, when the two masters student heard that Lu Zhou was invited to a physics research project with Professor Li Rongen, they were insanely jealous.

Everyone knew that Professor Li Rongen was part of the carbon nanomaterials research institute.

That institute was considered the most well funded in the University of Jin Ling!

However, this Lu Zhou kid was too charismatic and all they could do was to be jealous.

Receiving an offer from New York University as a first-year because of an SCI thesis and solving a world-class mathematics problem in his second year, Lu Zhou was way ahead of the two master's students.

Professor Li smiled and said, "The research is about carbon nanotube modified cement-based composite materials! It's mainly used in flood control, disaster prevention, land reclamation, bridge pedestal, etc. This project is backed by the Science and Technology Department of Jiangsu Province and the National Engineering and Materials Science Fund. Joining this project would be very helpful in your future development."

Carbon nanotube modified cement-based composites?

Sounds very nutty.

Lu Zhou, "Professor Li, I'm not familiar with materials science. Can you tell me exactly what I'm going to do?"

Professor Li smiled and said, "Don't worry, everyone starts from somewhere. As for what to do, I'll allocate a task to you when the time comes. Specifically, it's mainly to analyze the collected Fourier infrared spectrum data."

That's it?

Lu Zhou sighed in relief.

That was easy since he was an expert in functional analysis.

So, he smiled and said, "No problem! I got this. When do I report to you?"

"Let's just do it now," said Professor Li Rongen as he stood up from the sofa. He then smiled and said to Professor Tang, "Then I won't bother you, let me borrow your precious student!"

"Haha, you're welcome. Go ahead, just remember to return him!" said Professor Tang with a smile.

...

The Carbon Nanomaterials Research Institute of the University of Jin Ling was located at the northeast corner of the campus, next to a tree-lined path leading to the observatory.

Who would've thought that this laboratory containing hundreds of millions worth of equipment would be in this ugly building?

At least, Lu Zhou had not expected it.

He had never been to this part of the campus.

"This is our school's carbon nano research institute. It's pretty disappointing from the outside, right?" said Professor Li jokingly.

Lu Zhou smiled and said, "I'm not disappointed, but it does look quite ordinary from the outside."

"Extraordinary mysteries are often hidden in the ordinary things, just like what we are studying right now. A piece of graphite that can be seen everywhere, it can be softer than water, it can be harder than steel... This all depends on our research. It's up to us to reconcile the relationship between those microscopic particles."

While walking to the main entrance of the institute, Professor Li Rongen talked about some physics with Lu Zhou.

There was no difference between the interior of the institute and the normal school buildings. The only difference was that there were no classrooms; only rooms with various labels, and laboratories with different instruments.

Compared with the various cutting-edge experimental instruments displayed here, the experimental equipment that Lu Zhou had seen before were more like toys for children.

After Professor Li Rongen brought Lu Zhou to the entrance, he found a tall and skinny graduate student who was wearing a white science coat.

“Xiao Liu, take him on a walk around here and help him to familiarize with the environment. I still have some stuff, so I’ve to go back to the campus. When you get the data, send it to my mailbox.”

“Okay, Professor Liu,” said the graduate student named Xiao Liu as he smiled.

After Professor Li Rongen handed Lu Zhou over to Xiao Liu, he left.

Xiao Liu pushed his glasses and extended his hand as he said, “My surname is Liu, first name Bo, just call me Liu Bo!”

“Lu Zhou,” said Lu Zhou while shaking his hand. He added, “Liu Bo, nice to meet you!”

“Haha, Lu Zhou, right? Hello, hello. I’ve heard of you before,” said Liu Bo. He then let go of his hand and made a welcoming gesture, “This way please.”

While they were walking in the corridor, Liu Bo started to tell Lu Zhou about the situation of the institute.

Like the name implied, the main research topic of this research institute was aimed at carbon nanomaterials. Research on sub-projects such as carbon nanotubes, fullerenes, and graphene materials was also included.

According to Liu Bo, the optoelectronic devices were the latest generation of photoelectric sighting devices that 99 tanks produced. They were mainly for the interference caused by electromagnetic pulses and component damage. As for the specifics, it was confidential, even Liu Bo did not know.

In addition, there were many public research results. For example, the research on the inhibition of tumors by perfluorocarbon nanoparticles would soon produce results that could provide new ideas for the treatment of cancer.

These were all cutting edge research projects.

Liu Bo casually talked about his own project.

“The project that we’re doing isn’t as earth-shattering as the others. It is related to the country’s infrastructure. So, it’s also very important! Of course, you won’t be under too much pressure. You’ve to do research with a calm mind, you cannot be urgent.”

When they were at the entrance of the laboratory, Liu Bo looked back at Lu Zhou. He then smiled and said, “It’s here, this is where we work!”

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“Yes,” answered Lu Zhou with a smile.

Qian Zhongming nodded and said, “Do you know how to use Matlab?”

“A bit.”

“A bit is enough,” said Qian Zhongming as he nodded. He took a USB from the table before handing it to Lu Zhou and said, “Some introductory tutorial and literature are in here, including the application for our research grant. Once you have finished reading them, you’ll have a general idea of our research... Oh yeah, don’t upload it online.”

Although domestic universities were mostly cooperative in the field of scientific research, they were still competitive against each other. Similar research projects were also being done in other universities. After all, the first person who discovered the scientific finding would get all the credit.

The competition between the laboratories was also fierce as whoever discovered it first would get all of the credit.

Due to this, many project leader’s daily rituals were to research similar projects, to find any copycats.

“That’s it?” asked Lu Zhou while he held the USB.

“That’s it for now. The new samples had just arrived, and no data collection has been done. It’s pretty late, so we’ll pick it up tomorrow,” said Qian Zhongming while touching his nose.

“Where is the Fourier infrared spectral data collected? In the old campus?”

Brother Qian pointed to his feet and said, “Right here.”

“Right here?”

Lu Zhou looked around and did not see any powerful experimental equipment.

At least, it was a lot less impressive than the labs next door.

“That’s right,” said Qian Zhongming as he nodded. He then pointed to the old-fashioned printer looking thing and said, “It’s this thing.”

“This?!” gasped Lu Zhou as he looked at the instrument in disbelief. He could not believe that this was the cutting-edge instrument.

“That’s right,” said Qian Zhongming as he nodded. It was almost like he had guessed what Lu Zhou was thinking when he said, “TENSOR-II research-grade Fourier transform infrared spectrometer, which was made by German company Bruker. The built-in gold mirror has a reflectivity that is 6.5% higher than that of an aluminum mirror. It has strong anti-oxidation and stable optical performance. Dual-channel digital acquisition, four external output optical path expansion...”

Lu Zhou listened to him with a confused expression.

Although he had read some related textbooks during his summer vacation, he did not touch on such specific things.

“Fine, fine. Stop scaring the kid,” said Liu Bo as he patted the guy’s shoulder and laughed at Lu Zhou. He said, “This guy talked a little too much sometimes. Don’t worry about it. Tomorrow we’re going to do the collection of Fourier infrared spectroscopy data for the new sample. If you’re interested, come, but get up early. We’ll start at exactly eight o’clock.”

“Why is it so early? Any reason why?” asked Lu Zhou curiously.

Liu Bo said, “We claim that the temperature in the morning is perfect, but then we adjusted the air condition and found that it doesn’t make a difference... Well, we don’t know either. In short, we believe that having the experiment at eight o’clock will give us a higher success rate.”

What is this metaphysics?

Lu Zhou was stunned.

Why is metaphysics important in a scientific experiment?

What?...

...

Lu Zhou already finished the bug check, plus with Yuan Liwei and Rong Hai overlooking the tasks in Campus Assistant, he did not have much to do.

When Lu Zhou returned to the dorm with the USB that Brother Qian gave him, he copied the documents onto his computer and began to read it carefully.

Three months ago, during the summer vacation, because of the mission, Lu Zhou read some textbooks related to the research project. However, those books mainly contained basic knowledge, it did not go in depth.

Carbon nanotubes was a relatively advanced field. This field was always updating. If one wanted to understand this field in depth, one had to read a lot of theses.

Professor Li Rongen's research project was about discovering a wide range of carbon nanotube applications.

The tailored single-walled carbon nanotubes were easily dispersed in polar solvents such as water, alcohol, and DMF to form colloids. Due to these properties, carbon nanotubes were being studied by many researchers as the next generation of electronic materials. Its application in composite materials was also becoming more and more extensive.

Particularly, nanotube applications in the cement and steelmaking industry were also trending...

At least, domestically.

After reading the funding application, Lu Zhou opened the folder where the papers were stored.

Since Brother Qian already prepared the essential thesis for him to read, it saved him a lot of time.

As he scanned the theses, he found out that around 30% of them were from the University of Jin Ling.

Lu Zhou thought that the University of Jin Ling was still pretty powerful.

The only universities better than the University of Jin Ling in the field of the carbon cluster material research was the University of Yan and maybe the University of Shuimu.

Of course, although the research of the predecessors had been prepared, there were still many technical problems to be solved. The most specific one was that carbon nanotubes, as nano-scale fillers, could not be uniformly dispersed in the interior of the matrix or agglomerated inside the matrix. Then, after doping, the strength of the matrix material could not be enhanced. Instead, the inherent properties of the matrix material were damaged.

The bottleneck encountered by the research team led by Professor Li Rongen seemed to be this.

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"The problem is the data we calculated using the Fourier infrared analyzer. Look here," said Brother Qian as he pointed to the FTIR image that was just pointed out. He then asked, "What do you see?"

Lu Zhou resisted the urge to consume general points as he stared at the still warm A4 paper for a long time. He suddenly recalled what he learned from the theses that he read yesterday. He felt something and saw something was wrong with the image.

"Is the characteristic peak of the No. 2 cement sample abnormal?" asked Lu Zhou in an uncertain tone.

"Right, but not accurate," said Brother Qian as he nodded. He pointed out several places on the FTIR image and continued, "No. 2 sample is a cement sample incorporating CNTs 1 and is tested according to mechanical properties. As a result, our 2 samples performed quite well in the compressive capacity test, but the performance in the tensile test was unsatisfactory. According to the characteristic peak data at 6-10h time period on the FTIR image, we initially thought that the CNTs material hindered the polymerization process of the silicon tetrahedron in the Calcium-Silicate-Hydrate gel, which leads to the formation of pores inside the cement material in the later stage of the hydration reaction."

"Where is the problem then?" asked Lu Zhou as he wondered. He then continued, "I mean... Since we know the reason why the tensile strength of the No. 2 sample is not satisfactory, can we solve it?"

"It's not that simple," answered Brother Qian with a blank expression. He continued, "We've tried many methods, including the use of melamine as a nitrogen precursor, and the ball-milling of carbon nanotubes under vacuum. The surface of the carbon nanotubes was functionally modified... But from the tensile test data for samples No. 27 and No. 28, the results were equally as bad."

Lu Zhou mostly understood what was going on, but he did not have a solution.

He nodded and asked, "What do you want me to do?"

Brother Qian, "In order to find out the solution, we've already done a lot of experiments. The funding is still enough for us to do a couple more experiments. But a few days ago, we learned that the material science laboratory is going to take over our laboratories, and we'll have to stop our experiment soon."

Brother Qian paused for a second and sighed before he continued.

“We need an expert who is proficient in mathematics. Preferably proficient in functional analysis and help us analyze these experimental data to see if we can find some valuable clues. It would be great if we could find how CNTs cement materials become affected by the aging hydration reaction. I have self-learned some functional analysis, but I still have no idea about how to analyze this data. I still have to entrust you experts for difficult calculations.”

Just like how the mathematics department did not have a course for material physics, the applied physics department did not have a functional analysis course either. After all, the number of people who had double undergraduate degrees was a minority. Most of them took the necessary courses when they did their master's.

After thinking for a while, Lu Zhou said seriously, “I can't guarantee that I'll succeed, but I can try... When do you need the result?”

“The sooner the better. It's not like I can't wait... but it's best to be within three days,” said Brother Qian after he gave some thought to it. He then continued, “After three days, with or without results, I hope that you can at least give me a progress report.”

Lu Zhou nodded and said, “I'll try my best.”

After Lu Zhou received the task from Brother Qian, he went to the library.

Although Liu Bo gave him a desk in the laboratory to work, it was too empty and cold in there.

Lu Zhou preferred the lively atmosphere in the library.

When he was sitting amongst other people that were studying, even if he wanted to procrastinate, he would feel guilty.

Also, the most important thing was...

The library more or less reminded him of the feeling of being deep in concentration.

Lu Zhou walked into the printing room and printed all the necessary experimental data and theses onto A4 paper.

Laying out all of the necessary material on a study desk was a study habit of his.

Anyway, the printing could be reimbursed by the research fund.

Once Lu Zhou found a corner in the library, he sat down. He tapped his pen on a piece of draft paper and was ready to start writing.

However...

Ten minutes had passed.

He was still sitting there in the same position without any movement.

Emmmm...

Where should I begin?

Lu Zhou's face was ugly.

If there was a fixed formula to use or even a clear goal, he could conceive where to begin. However, the situation was that the research animals in the lab did not find any problems, but they asked him to help them find the BUG.

He recalled what Brother Qian said.

There's no way that I can solve this. I'm going to be a skillful loser...

Lu Zhou looked at the data and scratched his head.

Suddenly, he realized that this task was more difficult than he thought.

...

Just like what petrol was to a car, food was the substance that gave people energy.

Even a genius had to eat.

Lu Zhou sat at the library until twelve o'clock where he stared at his empty draft paper and cursed. He threw the pen on the table and went to the cafeteria.

In the cafeteria, Lu Zhou bumped into Professor Tang. He took his food and sat across him.

When Professor Tang saw Lu Zhou, he smiled and asked, "How are you feeling?"

"It's hard! A lot harder than pure mathematics problems," replied Lu Zhou.

"It's supposed to be hard," said Professor Tang with a smile. He continued, "Mathematics is a research tool. Since you're studying applied mathematics, there will be many opportunities for you to encounter similar projects in the future."

"Professor, please, can you give me some ideas?" asked Lu Zhou as he sighed.

"I can't give you any ideas. You've to come up with them yourself. I can give you a suggestion though," said Professor Tang as he laughed. He then said, "Didn't you enter the mathematical modeling competition? Think of the feeling back then."

Lu Zhou raised his eyebrows and he went into deep thinking. He then shook his head and said, "It's completely different. The reason why the aerospace problem could be turned into a mathematical problem was that it was ultimately a physics problem and there was a formula. Plus they gave me data..."

"It's actually the same," said Professor Tang as he shook his head. He continued, "Whether it's the movement of a spacecraft, or the movement of particles, or the change of functional groups... In terms of mathematics, it's essentially the same. All the data hidden in the depths can be mined, and there are rules that can be calculated. Mathematical models can be built. I think you can't find it because you're not trying hard enough. Think more, observe more, I believe you can definitely discover the clues."

Lu Zhou began to think.

Professor Tang smiled at Lu Zhou and nodded.

This young man is worthy to be taught.

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"The FTIR images of samples No. 2, No. 4 and No. 27 indicate that this effect is not related to the surface functional modification of the CNTs materials. The experimental data from samples No. 24 to No. 28 can be deleted..."

Lu Zhou crunched up several A4 papers and threw it into the trash can. He then wrote down two lines of formula on the paper.

$$[D_i = \{k^2 C_{Me} / (2d\mu)\} \cdot (2P_w / \rho_w)]$$

$$[V_i = (2P_w / \rho_w)^n]$$

Lu Zhou looked at these two lines of formula and had a smirk on his face.

This is a good start...

If he was asked to dive into the impact of carbon nanotubes on the matrix material, he could not do it. However, he was asked to mine data from FTIR images and using mathematical tools to find patterns. That, he could do.

Time slowly passed by and the sky outside the window gradually became darker.

Lu Zhou spent the whole afternoon completing the preliminary collation of the data and built a simple mathematical model.

This mathematical model contained the parameters of the CNTs materials on the cement hydration reaction rate, reaction temperature, sample mechanical properties, FTIR characteristic peak region, etc. It also contained the relationship and correlation between parameters.

Lu Zhou directly used the thesis he once published in the International Journal of Theoretical and Applied Mathematics journal. In the thesis, he wrote about several generalized theories about the Fourier inversion transformations. Unexpectedly, by using the thesis, the amount of computation could be reduced.

Once the mathematical model was built, the difficulty of the problem was greatly reduced.

Lu Zhou leaned against his chair and stretched.

When he glanced at the Matlab interface on his screen, he suddenly had a moment of realization.

Next, he would code this model into a program!

Once he was done, he could use the power of the computer to dig the “invisible” data.

...

It seemed that Lu Zhou went back to the same state as when he wrote the thesis on Zhou's conjecture. For three days, all Lu Zhou would do was to go to his dorm, the library, and the cafeteria.

However, even working like this, by the evening of the third day, Lu Zhou only managed to complete the establishment of the second set of models. He used an iterative algorithm to find how the CNTs materials influenced the temperature of the reaction when they were hydrated into the cement at various stages.

He still had three known parameters that needed to be calculated.

Lu Zhou had only completed 60%-70% of this project.

However, the rest of the work was easy as he only had to do calculations.

When it was half past five in the evening, Lu Zhou tossed his pen on the table and went to the cafeteria.

While he was walking, he called Brother Qian.

As soon as he picked up, an eager voice came from the other end.

"How is the progress?"

Lu Zhou resisted his urge to yawn. As he rubbed his nose, he said, "Give me two more days, I can definitely do it in two days."

The semi-scientific mathematical modeling competition was still incomparable with this kind of scientific research project. The most important thing was that Lu Zhou had no teammates. He had to do everything, from mathematical modeling to programming to thesis writing.

When he was in the mathematical modeling competition, he still had a genius programmer that helped him with SAS and graph making. He also had a teammate that brought him food.

Lu Zhou could not help but reminisce.

I guess she was still pretty useful...

“... Can you do it or not?,” asked Brother Qian. His tone was full of doubts.

It was not that he doubted Lu Zhou’s mathematics abilities. After all, Lu Zhou proved Zhou’s conjecture.

However, mathematical strength could not be directly applied to scientific research. Many people had engaged in pure-number research for their entire lives and their mathematical skills were cutting-edge. However, no matter what, their achievements were only in the field of pure mathematics.

Although this was normal, not everyone could apply their specialization.

Despite that, Brother Qian did not want to see Lu Zhou drop the ball.

Lu Zhou answered, “Oh, you’ll know in two days.”

“...”

Lu Zhou sounded confident.

Although Brother Qian was still suspicious, he did not say anything.

Since he had already waited for three days, why not wait two more days?

The only thing that made him and Professor Li Rongen felt uncomfortable was the silence of the University of Zhi. The two universities had a lot of overlap in their research on “carbon nanotube

modified composite material” with the base material in the project of University of Zhi being cement. It was like the University of Zhi was hiding something big.

It made Brother Qian and Professor Li Rongen panic.

Especially since their projects were at a bottleneck...

Once Lu Zhou hung up the call, he walked into the cafeteria. Just as he stuffed his phone into his pocket, his phone rang again.

He took out his phone and noticed that it was Fat Wu who called him.

Lu Zhou took out his food card and pressed it on the card reader for his barbecue meat. Only then did he picked up the call.

“Hello?”

Fat Wu, “What have you been up to? I haven’t seen you in a while.”

Lu Zhou said, “I’m doing a research project for the physics department. It’s related to carbon nanotube materials.”

Fat Wu, “Too good, too good. Research on nanotube materials? Amazing!”

Lu Zhou asked, “You’re familiar with it?”

Fat Wu smiled and said, “There was a laboratory relocation last year, right? Some workers and I were the ones that installed the routers.”

Lu Zhou: “...”

Fat guy Wu coughed and continued, "Anyway, tomorrow afternoon, I want to bring the club workers together and have a meeting, to discuss the advertising plan for the new version. Do you have the time to join us?"

"No, I can't. I'm too busy these days," said Lu Zhou while he was stuffing his card back into his pocket. He took his barbecue meal and said, "How about... You just do this meeting by yourself?"

Fat Wu said, "Boss, you can't just ditch me like this?"

Lu Zhou did not feel good about this either, but he really did not have any spare time. He said, "Well, I'm giving you a stage to perform, plus I probably can't give any useful suggestions anyway. Do your best! I can see you becoming CEO!"

Fat Wu: "..."

He knew that he was CEO material.

However, Lu Zhou's words...

Why do I feel like I've heard those words before?

...

Time passed by quickly, and within a blink of an eye, two days had passed.

Lu Zhou looked at the stack of draft papers that were piled up in the corner of the table.

It was already one o'clock in the morning.

After the library was closed, he carried his laptop bag and found a classroom to work. He finally completed the final steps.

He had sacrificed so much for this research project.

Lu Zhou entered the sets of data into the computer and finished the final calculations.

After that, he put the data into the formula...

Suddenly, Lu Zhou stared at the draft paper and was frozen.

He was staring at the number on the draft paper and the number on the computer screen when a strange expression appeared on his face.

$\alpha=0$?

This is impossible!

No, wait...

I'll think about it from another perspective.

If his calculation was correct, the resulting α parameter was indeed equal to zero.

This means that...

When the CNTs were incorporated into the cement, there was no impact on the reaction of the hydration!

What the hell...

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Lu Zhou was certain of his calculations.

When he discovered this issue, he recalculated it at least three times!

Lu Zhou's tough attitude surprised Brother Qian. Brother Qian then softened his attitude.

He stared at the chart for a long time.

The debate between the two Liu Bo, who was sitting next to them doing sample analysis.

After he heard the discussion, Liu Bo stared at the A4 papers on the table with an intrigued expression on his face.

"The CNTs material has no effect on the hydration reaction of cement in the early stages? This is really incredible. If this conclusion is correct, it can even be published as a research result alone."

"I agree, how ridiculous," said Brother Qian brother as he nodded. He then shook his head and said, "From a molecular dynamics point of view, this is impossible. The side of the carbon nanotube is highly delocalized. The bond is bound to interfere with the polymerization process of the silicon tetrahedron..."

Liu Bo raised a counter-argument, "But this is only one of the many consensuses, maybe it's not correct..."

Lu Zhou looked at the two people discussing and did not say anything. He could not even understand what they were saying.

It was similar to a situation where if Lu Zhou talked about optimal inversion theory of linear functionals to those two, they would not be able to understand a thing.

Lu Zhou looked at the two people discussing and started to think.

Guess I really have to increase my knowledge level.

Entering the frontier of scientific research with a just a mathematics degree is not enough...

Otherwise, if he received a high tech drawing from the system, he would not even be able to understand it.

Actually, if Lu Zhou understood material physics, he would know that the international academic community did not have a “clear conclusion” about the mechanism of carbon nanotubes for composite materials.

Although the proper addition of carbon nanotubes in the material could increase the strength of the material, this had been confirmed in many experiments. For example, the most typical laser alloying and post-quenching process synthesis of carbon nanotubes / 4 # steel, composite hardness could reach HRC69...

However, the method to do this for carbon nanotubes was currently based on theoretical assumptions. Therefore, if one saw different explanations in different textbooks, one should not be surprised, because this thing itself did not have a “conclusion”.

What Brother Qian believed in was one of the mainstream conjectures about the strengthening mechanism of carbon nanotubes for cement materials.

As for if this conjecture was correct...

Honestly speaking, he did not know either. Anyway, he used it as a conclusion.

If Lu Zhou’s calculations were correct, then this would undoubtedly provide a powerful counterexample.

Still, this was too unexpected, too ridiculous!

After a while, Liu Bo and Brother Qian seemed to have reached a consensus and they both looked at Lu Zhou.

After a moment, Brother Qian spoke.

"I can't answer you right away... I need to do experiments."

"If your calculations are correct."

"It'll be a major discovery!"

Lu Zhou immediately asked, "How major?"

Liu Bo smiled and said, "I don't know how major either, but it is significant for the research of carbon nanotube materials. It'll greatly help other researchers. Of course, the academic value isn't as great as that mathematics problem you solved."

Lu Zhou was embarrassed as he smiled and said, "That's all virtual stuff."

"What are you talking about? There's only right or wrong, nothing is virtual," said Liu Bo as he smiled and shook his head. He then continued, "Like what Brother Qian said, we still need to do further experiments before we can give you a definitive answer. Also, can I ask you for a favor?"

Lu Zhou asked, "What is it?"

Brother Qian coughed and said, "About your mathematical calculations, can you publish it after our research project is finished? Because we're not the only ones doing research in this area, the University of Zhi is also..."

If Lu Zhou published this research, the enemy might use it to their advantage!

It was likely!

Although it was kind of immoral to do this, Brother Qian had to make this request. Otherwise, his half a year worth of research would have been worthless.

“Is that it? Okay, okay,” said Lu Zhou as he smiled nonchalantly.

Lu Zhou found this conclusion basically by accident. If he did not have the data that Liu Bo and Brother Qian provided, he would not have written all those formulas, and he definitely would not have come to this unexpected conclusion.

The names of the two researchers also deserved a second and third spot on the thesis.

Nonethelss, Lu Zhou still took their opinions into account.

This was about politeness and integrity.

Qian Zhongming, “Latest the end of next month, earliest end of this month! I promise you I can produce results. By then, you can publish the thesis with no problems.”

Lu Zhou smiled and said, “It’s fine. I’m not in a hurry. Let me know when I can publish it.”

In fact, Lu Zhou was taking some risk by doing this. After all, if someone else reached the same conclusion within this time frame, his five days worth of torture would have been for nothing.

However, he had to look at the bigger picture.

Also, the probability of that was small...

About this important matter, Brother Qian immediately called Professor Li Rongen.

Professor Li did not say much on the phone. Instead, he just asked Brother Qian to take Lu Zhou's thesis and a few lab samples to the old campus lab.

If Lu Zhou's mathematical conclusion was correct, then they had been doing their experiments wrong the whole time.

However, it was not too late to change!

Chapter 96

Yuan Liwei threw the chalk on the podium, nodded to Wu Dahai, then walked off the stage.

Fat Wu stepped on the podium as he clapped and smiled.

"Everyone has worked hard. You're all hungry, right? The president booked a table at that fish restaurant. Let's all eat."

The most important part was that the workers did not have to pay.

After they heard Fat Wu's words, they finally gained some morale.

When they thought about it, other than time, they really did not have to pay anything. They did not even have to pay a sign up fee.

Even if they did not join the club, most of their time would be wasted on League of Legends. It was better to do something meaningful. For example, a few new software students that worked with Rong Hai, did not know anything in the beginning, but now they knew some basic C++.

However, even then...

Humans were still emotional-driven creatures.

They arrived at the restaurant, but when the food came, the president still did not show up. Someone could not help but ask.

“Where is the president? Is he not coming?”

“Lu Zhou has some matters to attend to. He has been working on this physics research project, just wait a few days,” said Wu Dahai. He then raised his glass with a smile and said, “Come, cheers.”

Although the person that asked the question was dissatisfied, he did not say anything else.

After the group finished the meal, they walked toward the school gate and all went back to their respective dorms.

The person that asked the question was called Li Ruizhe. He was a first year in the computer science department. Next to him was his old friend, Wei Feng. They met Fat Wu while working for him and were convinced by him to join the Campus Assistant club.

Although both of them joined the club thinking it would be a “great business”, after two weeks, Li Ruizhe was getting somewhat tired.

The absence of the president was only one of the many factors. His dissatisfaction had been accumulating since long ago. He had expressed his dissatisfaction during many club activities.

Maybe it was because of the alcohol, plus they were alone, he started to complain to his old friend.

“We are working tirelessly writing code, writing programs... What’s he doing?”

Wei Feng was not as dissatisfied. He understood the reasons given by Fat Wu and did not feel an imbalance in his heart.

After all, he joined the club with the goal of learning in mind. He did projects with Rong Hai and learned to write some simple algorithms. He felt like he learned a lot, which was what he expected.

As for making money...

He honestly had not even think about it.

“... The president has a research project to do, he’s probably busy these days. I think it’s understandable. He also wrote a lot of code, not like he didn’t do anything.”

When Li Ruizhe saw that his friend did not agree with him, his expression was somewhat unpleasant.

“Pfft, I still have to prepare for advanced algebra. How come I can’t say I’m busy? Who isn’t busy?”

Wei Feng did not like to talk sh*t behind people’s backs. So, he patted his friend’s back and said, “Fine, fine, Ruizhe, you’re drunk.”

“I’m not drunk,” said Li Ruizhe as he burped. He pushed away Wei Feng’s hand and said, “I just feel bad...”

It was right, he felt bad.

It was not just him that felt bad...

...

Seven days after the thesis was sent to the old campus, the experimental results finally came out.

The conclusion reached was beyond the expectations of everyone.

Of course, “everyone” included, Liu Bo, Qian Zhongming, and Professor Liu Rongen. It even included a PhD student that Professor Liu brought, but it did not include Lu Zhou.

After all, Lu Zhou was confident in his own calculation abilities. He had also repeatedly checked his calculations multiple times. If the data given was correct, then his calculation was going to be correct!

"Incredible..."

"Your conclusion is correct."

"The CNTs material does not have any effect on the hydration reaction in the early age when it is incorporated into the cement!"

"If this conclusion is true, then our experiments have been wrong. The key to solving the pressure resistance of No. 2 sample is not in the hydration reaction at the early age, but from other places."

Lu Zhou asked, "Is there anything else I can help with?"

Brother Qian shook his head and said, "Not for now... We'll have to redo the experiment by adjusting the amount of carbon nanotube material usage, but you just saved us two months of research time."

Lu Zhou remembered about the documents he read. He thought about it and said, "I have a suggestion, should I say it?"

"Please tell me!" said Brother Qian seriously.

"Last time I read the recently published paper on the aqueous dispersion of carbon nanotubes from the University of Dong. I imported some of the experimental data into the mathematical model I built earlier and recalculated it. I then found something interesting... Why don't you try to experiment with a 0.4wt%-0.5wt% range for the amount of CNTs?"

"0.4 to 0.5?" asked Brother Qian. With his eyebrows raised, he said, "We've done 0.6-0.8... The results obtained were not satisfactory. The current preferred scheme is still above 1... Will 0.4-0.5 be too little?"

“That’s why I’m only suggesting,” shrugged Lu Zhou. He then added, “Since I saved you so much experimental time, why don’t you try my suggestion?”

If it was before and Brother Qian heard a suggestion from an “outsider”, he would have taken it with a grain of salt. However, the situation now was different. Lu Zhou’s calculations were proven by experiments, and Brother Qian trusted him.

Brother Qian nodded as he said, “Okay... I’ll forward your suggestion to Professor Li. Oh yeah, can you give me the document that you read?”

“No problem, I’ll send it to your email.”

Suddenly, Lu Zhou’s phone in his pocket began to ring.

“Sorry, I have to take this.”

“It’s okay, I have to go to the old campus anyway,” said Brother Qian as he looked at the clock. He then said, “See you later.”

Lu Zhou walked to the corridor and picked up the call.

When the phone connected, before Lu Zhou could even speak, Fat Wu’s loud and anxious voice came through.

“Lu Zhou, something bad had happened!”

Chapter 97

I don’t know him at all.

“This is my fault,” said Fat Wu as he put out the cigarette and threw it in the bin. He sighed, “I just want to get more workers, but I forgot about the internal problems.”

“It’s not entirely your fault, it’s my fault as well,” said Lu Zhou as he put down the withdrawal application. He sighed softly and said, “There are five applications for resignation. I don’t remember four of these names. Also, I’ve been busy with science research, I didn’t care enough...”

As the president of the club, not knowing the names of club members was an ignorant move.

Also, they were not just club members, they were his friends.

Maybe...

He really was unsuitable for doing business.

Lu Zhou asked, “Is the impact big?”

Fat Wu’s smile was a bit reluctant as he said, “The impact is pretty big. The two first years that left was not too big of a deal, but the three others that left were pretty significant. Right now, we only have Rong Hai and a first-year student to do programming...”

The update was about to go live, but suddenly this thing happened. They might even have to postpone the update release.

Also, it was not just about the update.

The blow to morale was even more deadly.

Lu Zhou thought and said, “Call the rest of the people for a meeting... Forget about it, I’ll book a table at the fish restaurant.”

“Okay,” said Fat Wu as he nodded. He then left the office.

...

In front of the school gate, at the fish restaurant...

The same place, but different time. This time, including Wu Dahai and Lu Zhou, there were only nine people.

This time, Lu Zhou poured himself a beer and stood up.

"You might have noticed that we lost five companions."

"Actually, when I made this club, I already said that if anyone feels out of place, they can leave. We're all friends here. But I feel that I have not been able to maintain the cohesiveness of this team. As the founder, this is my fault."

"It has been more than half a month since our club's establishment. You guys have put in a lot of work for our business. I think that before the new update goes live, I have to say some words."

"Today I brought everyone here to say one thing."

"I intend to take 20% of my shares as an equity reward."

"Of course, right now this equity is worthless. Campus Assistant hasn't made a profit yet, it also has half a million of debt. Therefore, this 20% of equity will be honored after the round of angel financing."

"Depending on each person's contribution, they'll receive different amounts of shares. I'll promise a fair judgment."

Lu Zhou looked at everyone as he said this.

After that, he lifted his glass and drank the whole thing.

...

It was much more difficult to unite a team than to come up with a business idea or make a powerpoint.

Fortunately, relying on “equity” and “angel financing”, the morale of the team increased again.

Next up was honoring these two promises.

After the dinner, Lu Zhou went back to his dorm and as he leaned against the balcony, he stared at the track field and pondered.

He thought about Campus Assistant and was inexplicably annoyed.

It was like he encountered an impossible mathematics problem.

He had not encountered this kind of problem in a long time.

As expected...

Compared to entrepreneurship, he was more suited for scientific research.

Maybe after the round of angel financing, I'll find an opportunity and cash out the shares.

Lu Zhou stayed on the balcony for a while. He sighed and looked at the stars before he began to talk to himself, “... Is it because I'm burning myself out?”

With the five days of high-intensity research work plus the launch of the Campus Assistant update, he felt burnt out. He thought of Mrs. Yang's advice and gave it serious consideration.

Perhaps, he should consider the balance of work and rest.

At this moment, the dorm room door was pushed open. Shi Shang who was wearing a jersey walked in with a basketball.

“Zhou, ball? We still need one person.”

Li Tao and Tian Jun stood behind him. They were both wearing jerseys.

Lu Zhou wanted to say he was disinterested, but he changed his mind and blurted out, “Wait for a second, I’ll change my clothes first.”

He turned around and went into the dorm. He then pulled out a jersey from his cabinet. Once he put on his shoes, Lu Zhou followed the group to the basketball court.

...

Run, shoot, dunk...

Okay, Lu Zhou could not dunk. At most, he could grab a rebound.

They were just playing casually, so they did not assign positions.

Lu Zhou was sometimes in the free throw line, sometimes in the three-point line.

For him, the score was unimportant. He just wanted to vent and sweat.

After an hour of playing half-court, the teams were extremely tired. Especially Lu Zhou. It looked like he fell into a pool.

“Midfield! Let’s take a break!”

Shi Shang shouted with the ball and everyone agreed.

Lu Zhou's sweat soaked through his clothes as he laid on the wooden floors and gasped. He had an indescribable pleasant feeling.

He had not felt this type of pleasure in a while.

Shi Shang bought two bottles of water and sat next to Lu Zhou. He then placed one bottle on Lu Zhou's head and asked, "How are you, feeling better?"

The bottle almost fell, so Lu Zhou grabbed it and rolled his eyes at Shi Shang. He then took a deep breath and said, "What do you mean by feeling better?"

"Emotionally," said Shi Shang with a smirk. He added, "Don't you have some stuff on your mind? Why don't you talk about it?"

"It's just that I'm too busy. Emotionally, I'm okay."

"That doesn't make sense," said Shi Shang as he shook his head.

"... What do you mean it doesn't make sense?"

As Lu Zhou stared at Shi Shang, he suddenly felt a sense of premonition.

His intuition told him that this guy was about to go on a rant.

Shi Shang laughed and said seriously, "According to my experience, when a guy has your expression, it's because of a girl."

Lu Zhou: "..."

Shi Shang saw that Lu Zhou did not respond, so he thought that he was correct. He sighed and said, "We're still young, who hasn't been rejected? The road is still long, don't be so sad about one person."

Lu Zhou: ???

F*ck me, Shi Shang's brain tumor is getting bigger.

Lu Zhou was about to insult Shi Shang when his phone suddenly rang.

Lu Zhou picked up the call and placed his phone to his ear.

"Hello?"

"It's me!"

Chen Yushan's voice traveled through the phone.

Lu Zhou adjusted his breathing and asked, "What's up?"

"Not much. I just wanted to ask if you're free tomorrow afternoon?"

"I'm free."

"Oh! That's great," said Chen Yushan as she sat in her dorm. Her eyes lit up and said, "I won two movie tickets with my roommate at the school's entertainment festival. We were going to go together but she stood me up. Do you want to watch a movie?"

Watching a movie?

Sounds good.

Lu Zhou heard that the movie was Nolan's new work. It was only domestically released recently. Lu Zhou had been looking forward to it since he saw the trailer, but he was so busy that he almost forgot about it.

Perfect, he wanted to relax anyway.

"Okay, I'll see you at the school gate tomorrow, two o'clock."

"Be there! Someone already ditched me, you can't ditch me as well! Also, why are you panting?"

Lu Zhou, "I'm playing basketball."

Chen Yushan was surprised, "You know how to play basketball?"

Lu Zhou replied, "I'm just playing around casually, talk to you later."

"Oh, ok. I have to study vocabulary, bye bye then."

"Bye."

Lu Zhou hung up the call and stuffed the phone back into his pocket. He stared at Shi Shang and asked, "What were you saying?"

Shi Shang looked at Lu Zhou and was silent. He did not want to talk...

Chapter 98

Lu Zhou answered honestly, "I went to the library for a while in the morning, and I didn't go back to the dorm before I came here."

Even though he could have left his bag in the library, Xiao Ai was on his laptop so he did not feel safe leaving it in public.

Chen Yushan had a defeated expression on her face. She glanced up at the parasol leaves and sighed, "Little brother, you're putting so much pressure on me."

Lu Zhou did not know how to respond.

He felt like no matter what he answered, he would be hated.

It was best if he kept his mouth shut.

The two called a DiDi cab and once they were in the back seat, they started chatting.

Since they were close friends, naturally they had a lot to talk about.

They talked about college life, the dorm building reconstruction, extracurricular activities, and etc. Twenty minutes quickly passed by, and the pair arrived at the destination.

They then went to the ticket booth and looked at the showtimes list.

They looked at the available movies, and Lu Zhou asked, "What do you want to watch?"

Chen Yushan did not hesitate at all as she responded, "Haunted Road."

Her eyes sparkled with excitement when she said this.

She had been looking forward to this horror movie ever since she saw the first trailer, but it was too scary to watch alone.

She originally planned to watch this with her roommate, but her roommate was too scared and ditched her.

In desperation, Chen Yushan could not find anyone to go with. Finally, she thought of the student that helped her with mathematics.

“Okay,” said Lu Zhou as he nodded. He spoke to the ticket seller, “One ticket for Haunted Road, one Interstellar.”

Chen Yushan: ? ? ?

The ticket seller looked at Lu Zhou before she looked at the girl behind him. She then smiled awkwardly and asked, “Don’t you think you should reconsider?”

Lu Zhou was stunned, “Reconsider about what?”

The ticket seller smiled and said, “Reconsider, reconsider!”

Lu Zhou: ? ? ?

The f*ck? Are you selling this ticket or not?

Chen Yushan silently came forward and placed the two vouchers on the counter before she said, “Two tickets for Haunted Road.”

The cashier smiled and said, “Great.”

Lu Zhou: ? ? ?

Once Lu Zhou realized what had happened, Chen Yushan had already received the two tickets, and she put one of them in Lu Zhou's hand.

The voucher was already used, so there was no chance of going back.

Lu Zhou looked at the movie ticket in his hand and sighed.

It was not that he was scared of horror movies, it was that he did not care for them at all.

He could watch "Ring" and still fall asleep. This type of childish horror movie was too simple for him.

It seemed that he would have to wait until next time to watch the Nolan sci-fi blockbuster.

Chen Yushan saw that Lu Zhou did not say anything. Slightly embarrassed, she said, "Fine, stop being so angry. I'll watch Interstellar with you next time."

"I'm not angry, I'm not that stingy," sighed Lu Zhou as he put away the movie ticket. He looked at the time and said, "I'll go buy some popcorn. Do you want any?"

After all, since he became a millionaire, he became slightly more generous.

At least, he was not as stingy when it was about food.

Chen Yushan's big beautiful eyes widened, "Are you sure that you'll be able to eat popcorn..."

Lu Zhou was surprised, "... Is there a problem?"

"No, nothing," said Chen Yushan as she shook her head in respect. She added, "Just buy it for yourself, I don't have an appetite."

Lu Zhou nodded and went to the counter.

He bought popcorn and a coke.

After he bought the food, they went into the cinema hall that was almost full.

Under Chen Yushan's constant urge, Lu Zhou walked in front of her while holding the popcorn and coke.

He did not know if it was an illusion, but he felt that people were looking at him strangely.

However, Lu Zhou did not care. Instead, he threw a piece of popcorn in his mouth and leaned back against the chair as he quietly waited for the movie to begin.

Soon, the intro started. A melodious and cheerful piano song came on, the tone gradually became more gloomy and strange.

The people around them stopped whispering as they stared at the screen and held their breath. Lu Zhou was the only person eating throughout the movie.

Of course, it was because he was disinterested.

At least, Lu Zhou was still following the movie plot.

The movie was about seven normal people going to a wedding when they encountered a car crash. They said something disrespectful for the dead and even took a photo of the accident for fun.

Then, they basically all died. When the car broke down in a rural area, the people decided to stay the night in the car. They even took a group photo and the caption said they would not die here.

Then...

They all died.

Lu Zhou heard screams nearby. The more he watched, the weirder he felt.

This plot...

Why does it feel like...

It's similar to Final Destination?

Like the other audiences around them, Chen Yushan could not help but scream.

However, she did not retreat.

She was scared to death, but she was still curious, her eyes stared straight at the screen. Her big eyes were full of fear and excitement and her hands were on her cheek, ready to cover her eyes...

Lu Zhou glanced at her.

This chick...

Is she okay?

The movie continued. It was the main confrontation scene and screams came from all around the theater.

Lu Zhou was eating popcorn and drinking his coke. He did not feel anything at all. He just wanted to go to the toilet.

However, Chen Yushan was screaming her head off next to him. People around her were wondering if she had gone crazy.

Finally, the movie came to an end.

From an objective perspective, the music was not bad. For a domestic horror film, it was okay. At the end of the movie, the whole situation was revealed to be just a dream.

After all, the focus of a horror movie was about the process, not the ending.

However, Lu Zhou did not understand the process at all.

Honestly speaking, artificially created horror like Detective Conan scared Lu Zhou a lot more than these horror films.

Of course, he was talking about the television show, not the movie version.

After they came out of the theater, Chen Yushan was quiet, like she lost her soul. Her face was white and scary and she was limping.

It was like her soul returned after they left the cinema. She sighed as she held her chest and said, "I was scared sh*tless..."

Lu Zhou threw the empty cup and popcorn bucket into the trash can and said, "Is it really that scary?"

Chen Yushan looked at Lu Zhou in disbelief, "Of course it's scary! Don't you agree?"

Lu Zhou said, "But ghost don't exist?"

"I know it doesn't exist, but don't you think that if a woman suddenly climbed out, it's scary? Her face is bloody..." said Chen Yushan with an uneasy heart.

Lu Zhou thought and still did not think it was scary. Instead, he stubbornly said, "But it's all fake..."

Chen Yushan: "..."

Chapter 99

"1+2 mode? Impressive. Then you'd have two degrees when you finished."

Chen Yushan smiled proudly, "I'm pretty good, right?"

Although she was just kidding around, she still felt pretty good being complimented by the genius.

Lu Zhou, "Nice, nice. Is your mathematics okay though?"

It was better to go abroad to study, whether it was "1+2" or "1+1" or "2+2". Generally, a university had cooperation projects with foreign institutions. One could get in with normal grades.

However, to enter the University of Yan was not as easy.

When Chen Yushan heard Lu Zhou doubting her mathematics, she was unhappy and argued, "My mathematics is good okay! It's just that when I started to re-learn it, I forgot about some topics."

Lu Zhou watched her argued and was amused as he blurted out, "Then let me test you. If in the case of L , it is a simple smooth closed curve. What are the properties of Cauchy points?"

Chen Yushan looked speechless.

"... Even though I don't read a lot of mathematics textbooks, stop scamming me. This is complex analysis, right? I don't study this."

What?

I think she's right.

Lu Zhou was embarrassed. He coughed and said, "Oh, my mistake. I'll think of another question."

Chen Yushan covered her ears and said, "I'm not listening! I've completed advanced algebra already! It's enough!"

When Lu Zhou saw Chen Yushan's overreaction, he was shocked. He thought, "We're just chatting, why are you overreacting so much? It's fine if you don't want to listen..."

People around might misunderstand...

A couple sitting next to them looked at them.

Girl, "Are all geniuses like this in a relationship?"

Guy, "Nope, it looks like a genius and a dumb student is in a relationship... A little weird."

The girl's face lit up, "Wait a minute, is that guy... Lu Zhou? From the mathematics department?"

The guy looked at him and said, "F*ck me, it is! Then... It's not a dumb student dating a genius, it's a godly student dating a dumb student."

The girl rubbed her chin and said, "Sounds pretty romantic when you put it like that."

Lu Zhou: "..."

What does this mean?

A single guy can't come to Starbucks?

Mind your own business!

When Chen Yushan heard their rude conversation, she blushed and with her jaws clenched, she angrily said, "I'm not a dumb student! My GPA is 4.7, goddamnit!"

...

It was the evening, and they were back on campus.

Since Lu Zhou had relaxed for the whole afternoon, he felt really comfortable. He did not even go back to his dorm. Instead, he went straight to the library.

The physics research project made him strongly interested in the research of carbon cluster materials. He found that using mathematical tools to solve practical problems was very intriguing.

It was like there was an unexplored gold mine, just waiting to be discovered by him.

Lu Zhou downloaded some theses into his computer and started to read them.

At this moment, he finally understood what the system meant by "your brain is too empty, learn more".

If he had not read the long list of books that the system gave him, he would not be able to understand these theses, much rather the high tech information in the system database.

Over the next two weeks, Lu Zhou basically went back and forth between the library and his dorm.

Of course, when there were new samples coming out of the lab, he would still help to analyze data.

Since his last thesis, Brother Qian Zhongming and Liu Bo gained immense respect for Lu Zhou.

Every time Lu Zhou came into the lab to help them analyze Fourier infrared spectroscopy data, they said stuff like “Master Lu, please”, or “Master Lu, this way”. It even made Lu Zhou embarrassed.

When he was free, he would discuss carbon nanotubes with Brother Qian.

Lu Zhou found out that this guy was an “equipment freak”.

Whenever they talked about cutting-edge equipment, the guy would not stop talking. He would even talk about the lab tables.

It was still thanks to him that Lu Zhou had the opportunity to get access to such expensive and valuable equipment.

For example, in the next-door laboratory, the CVD vacuum atmosphere tube furnace was used to prepare carbon nanotubes. The carbon nanotubes used in the whole research institute were made from this equipment. The import price of this big guy was 100 grand, Euro.

Not only did they have production equipment of carbon nanotubes, but they also had the equipment for surface modification of carbon nanotubes. That equipment almost cost as much as a house.

Whenever Lu Zhou listened to Brother Qian bragged, he could not help but be impressed.

Not everyone could afford to do scientific research.

After learning that Lu Zhou was interested in the preparation of carbon nanotubes, Brother Qian acted as a reciprocating agent. From the “preparation of transition metal catalyst” to the “purification of carbon nanotubes”, he went over the entire process with Lu Zhou.

Lu Zhou finally had the chance to see what the research project actually looked like in action.

Of course, he had to see it under an electron microscope.

With this, time quickly passed by, and soon, it was already the end of the month.

Finally, on the last day of November, a piece of good news came from the old campus lab...

Chapter 100

When Lu Zhou finally realized what happened, he stood up from his chair, which scared the couple sitting next to him.

He took a deep breath and held his phone tight as he asked with an excited and trembling tone, "We... succeeded?"

Professor Li Rongen smiled and used a positive tone to reply, "Yes! You're right! We succeeded!"

Lu Zhou quickly asked, "What's the ratio?"

"0.47wt%, your guess was completely correct! The best ratio of CNTs material to cement is indeed between 0.4 and 0.5, no more than 1wt%. We have made an empirical and inertial mistake. This could have been avoided," said Professor Li Rongen as he was overwhelmed by his emotion.

"Professor Li, can you send me the thesis about the blending ratio of CNTs material?"

"Of course, I already sent it to your email," said Professor Li Rongen with a smile.

Lu Zhou hung up the phone and quickly finished his bowl of noodles. He then went straight to the library.

He sat down in the library and quickly opened the email on his computer. Once he downloaded the PDF version of the thesis, he quickly found the section about the ratio.

“... When the CNTs material content is 0.5wt%, the compressive strength and tensile strength of cement increase by 47.1% and 34.2%, respectively.”

Finally, this last technical difficulty was solved. The entire problem came to a successful conclusion.

It was not just only the ratio of CNTs material to cement-based materials, but also the surface functional modification of CNTs material, and even the design of production processes, etc. These problems were all solved during this research project, but Lu Zhou was not involved in the other segments.

With the end of the entire research project led by Professor Li Rongen's team, they could publish at least five theses and two technical patents.

If Lu Zhou recalled correctly, not only was this project supported by the National Engineering and Materials Science Fund and the Provincial Science and Technology Department fund, but it also received an investment from the company, Zhongshan New Materials.

When the time arrived, Professor Li would split the research into two parts and submit two conclusion reports. One would be the vertical process of the research and the other would be about the horizontal process of the research.

In addition to the published theses, the two patents should belong to Zhongshan New Materials.

Next was to submit the materials used and receive the fund settlement statement, project research reimbursement, and then they should wait for the feedback from the project authorities...

However, Lu Zhou did not have to worry about these complicated things. There were designated people in the lab who were responsible for this type of thing.

Lu Zhou leaned against his chair and took a deep breath.

This torturous research finally came to an end.

However, he felt an inexplicable sense of being lost.

It was like a large stone was lifted off his chest, but he missed the pressure of the stone.

When Lu Zhou looked at the thesis again, he was surprised to find his name in the list of authors.

Obviously, his contribution to the thesis was recognized by all of the project members. Even if he had never seen the old campus laboratory, he still received a high degree of evaluation.

He loosened his fist and suddenly shook his head. He then started to stare at the computer screen.

“My battle isn’t over yet... I still have an SCI thesis left!”

The last step!

He opened a word document and his fingers danced on the keyboard.

[Fourier FTIR Spectroscopy Analysis and Mathematical Method for the Effect of Carbon Nanotube Materials on Cement Early Age Hydration Reaction

[Abstract: The hydration process of Portland cement and its carbon nanotube modified samples at an early age was characterized by FTIR. Through mathematical methods such as functional analysis, mathematical models were established. It was concluded that CNTs material did not affect the hydration reaction in early stage when they were mixed with Portland cement.

[Introduction...]

...

Lu Zhou spent the entire day typing up the thesis. When he finally finished it, he brought it to the lab.

Once he entered the lab, it was like Brother Qian had gone crazy. He hugged Lu Zhou and shouted excitedly, "We did it! Lu Zhou, we did it!"

"Okay, okay. I know, I know!"

Finally, Liu Bo was able to get rid of Brother Qian's hug. However, Liu Bo then smiled and walked over with his arms open. Luckily, Lu Zhou managed to dodge and escape.

Professor Li Rongen stood aside with a smile and looked at the group of young people.

He waited for the excitement to end before he spoke.

"You finished the thesis?"

"Finished."

Lu Zhou took out the USB but was rejected by Professor Li.

"You don't have to show it to me. I've already read the first draft you gave me and there are no problems in it. You did all of the research by yourself, so publish it in your own name."

"How can I do that, the data..."

Professor Li smiled and said, "Then write Liu Bo and Qian Zhongming name on it. The Fourier infrared spectrum data was collected by them. Or you can add my name to the fourth place. It doesn't matter for me. Anyway, what I hope is that you can become my graduate student."

Embarrassed, Lu Zhou smiled and did not answer.

This was difficult to answer.

It was not that he disliked Professor Li. The main reason was that he did not think about which direction he wanted to study in the future.

Professor Li smiled and changed the subject, “Computational materials calculation is an emerging interdisciplinary field. The general material science journals are not strong in reviewing this field. My suggestion is that you can choose the foreign Computational Materials Science submission. Although the impact factor I saw last time seems to be only 2.2, the influence of a journal cannot be measured by the impact factor alone.”

“As for the signature of the paper, just write your own name. You don’t have to take care of me. I published five theses in one field with the help of my team, what’s one more?”

Professor Li was not bragging when he said this. His team was well funded and their research ability was strong. Averaging at least 10 theses per year.

Professor Li never cared too much about the author name placements for theses.

As for the fourth author...

The domestic academic environment was different than in foreign countries. Only the first author mattered. Second and third name placement might be meaningful for master’s students, but for a professor like him, it was of no use.

The professor cared only about practical results.

Stuff like patents.

Lu Zhou still wanted to say something but was interrupted by Professor Li.

“Okay, let’s stop talking about academics. I booked a few tables at the Zijinshan hotel, I’ll drive you guys. We’ve worked for an entire year, so let’s have a feast tonight. Your travel expenses from now on will be reimbursed!”

Liu Bo, “Professor Li, thank you! So generous!”

Brother Qian also shouted some words.

A smile appeared on Lu Zhou’s face, but his expression was slightly weird.

Wait a minute...

Isn’t the Jin Autumn Singing Show tonight?

He promised Shi Shang that he would go and support him.

Emm...

Oh well, I’ll ditch him.

For Lu Zhou, eating with professors in a big hotel was a lot more tempting than standing in a school gymnasium.