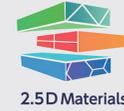
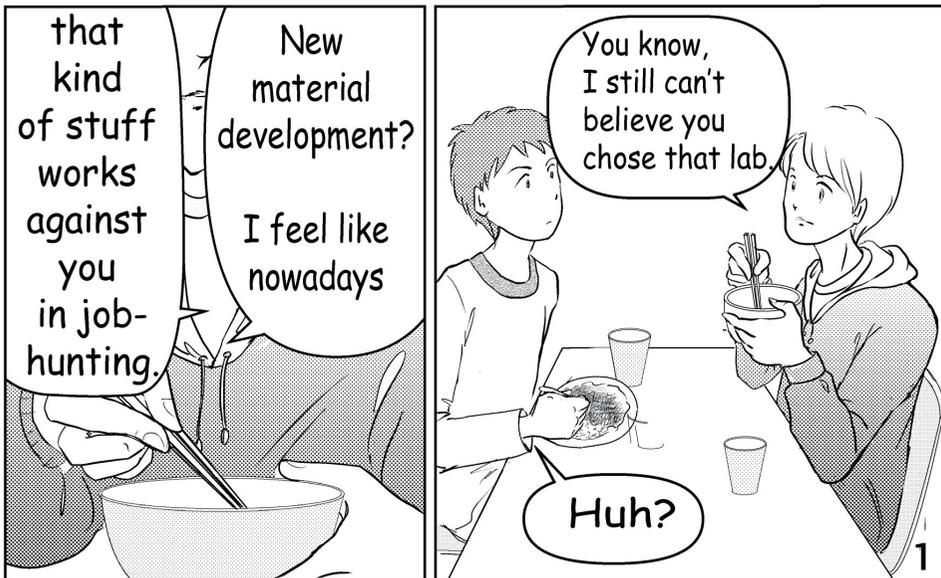
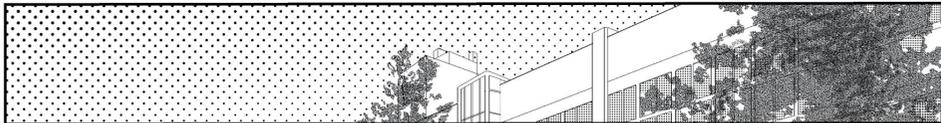
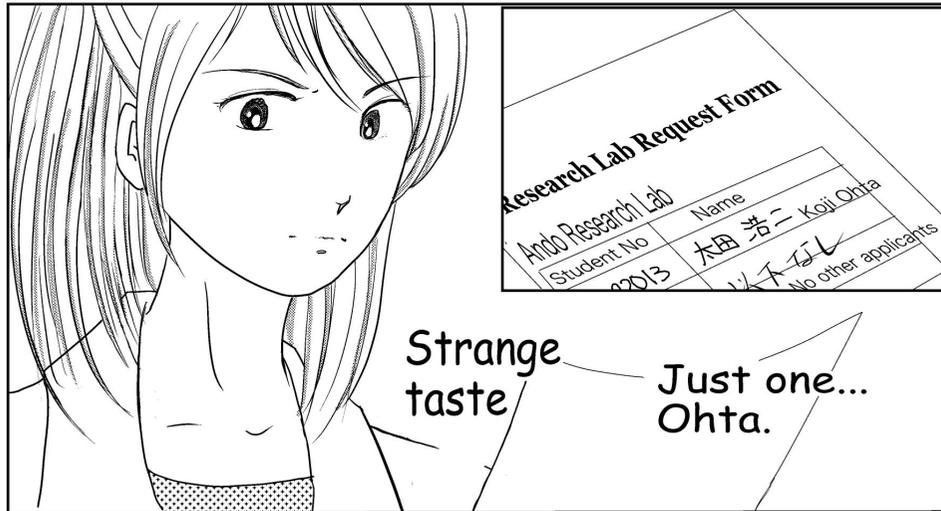


Chapter One: The Uninvited Senior Thesis Student



令和3(2021)年度学術変革領域研究(A)

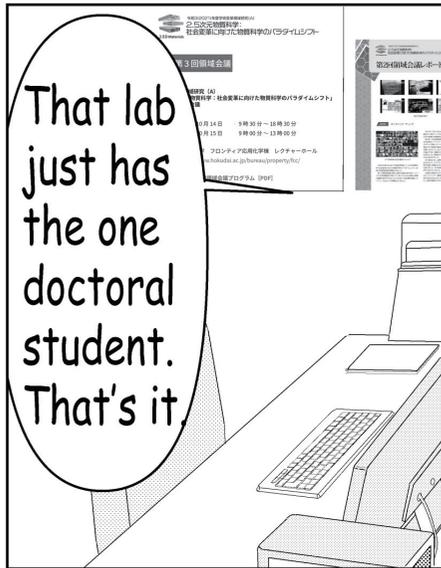
2.5次元物質科学:
社会変革に向けた物質科学のパラダイムシフト

NEWS
LETTER

Welcome to the 2.5 D Laboratory

© もんでんひでこ





That lab just has the one doctoral student. That's it.



You're telling me you chose it without doing any research?

No way.



No lab welcome party, hiking events?

What's!?

And you know, that doctoral student I hear she's a real nutcase.



けっ
何に
も
...
Ugh, useless.

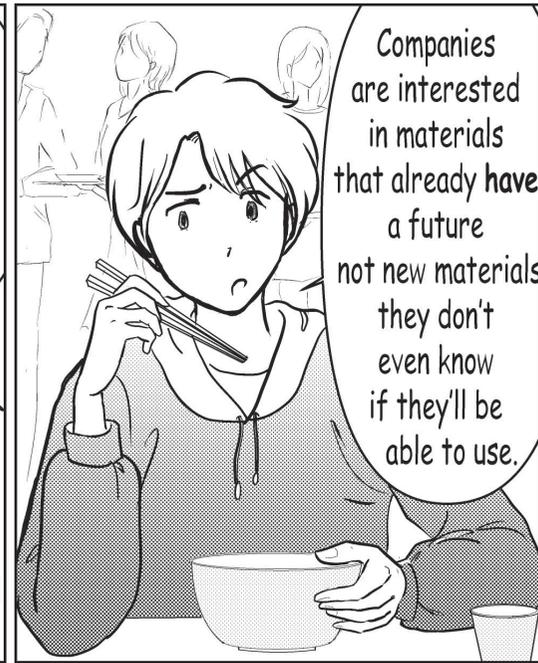
Nope. Of course not.



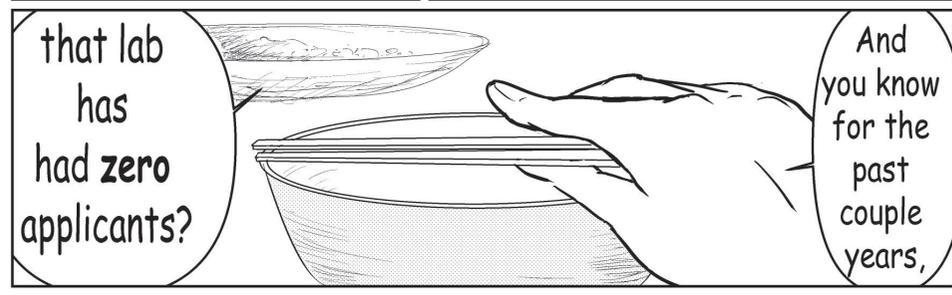
I mean sure, but that's just not interesting to me.

たっ
夢
た
There should be dreams

In the study...



Companies are interested in materials that already have a future not new materials they don't even know if they'll be able to use.



that lab has had zero applicants?

And you know for the past couple years,



B-But what about? ...Or the others?

Huh?



I wonder if there's a cooling-off period for labs?

Ah, maybe I messed up.

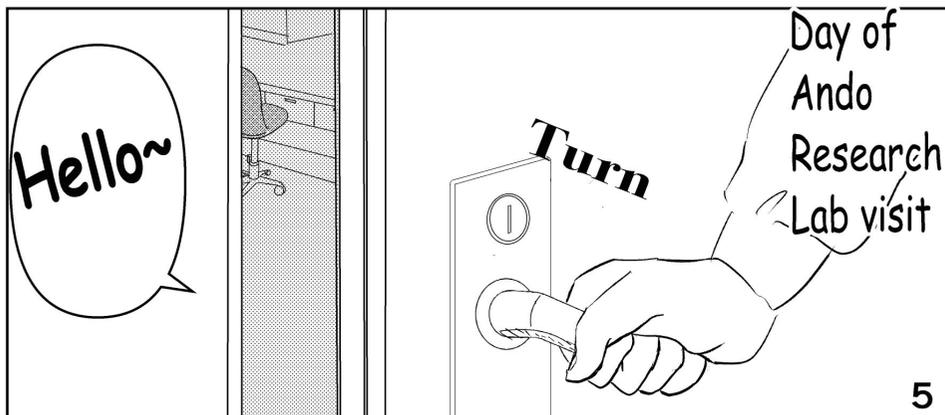
I want to do something incredible... Something I can only do right now, but...



Am I gonna be the only one there?

Am I gonna get destroyed by questions every session?

Wait... What's gonna happen at these seminars?



Hello~

Turn

Day of Ando Research Lab visit



Well, maybe that's why no one wants to do it. You planning to get a job or not?

最先端だぞ Cutting-edge 学にいるからこそ できるじゃん The kind of stuff we only get to do at university!

But it said in the lab introduction that they were developing cutting-edge chemical materials.



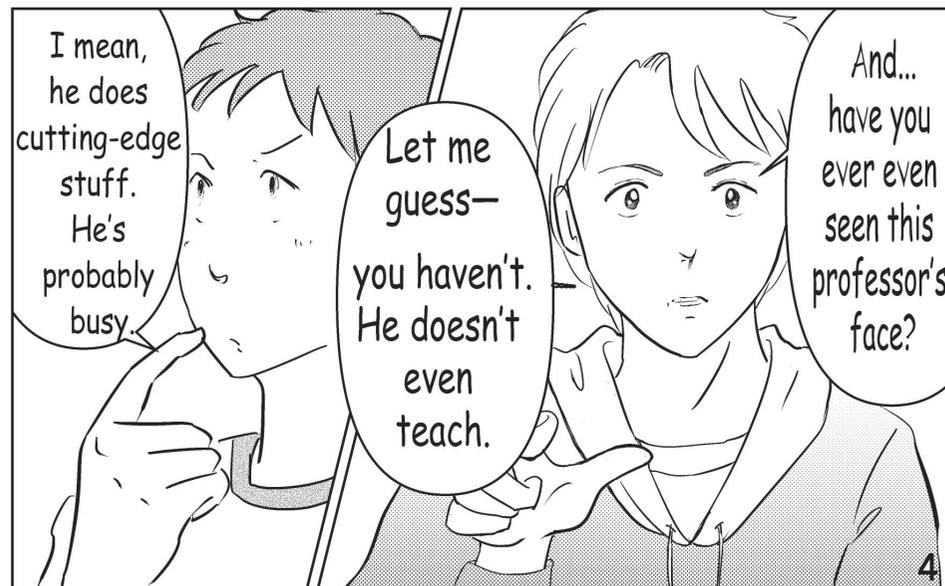
What if you end up failing?

Ugh, new material development? Weird.

Ando... Ando? Research lab? Never heard of it.

Nope. No way.

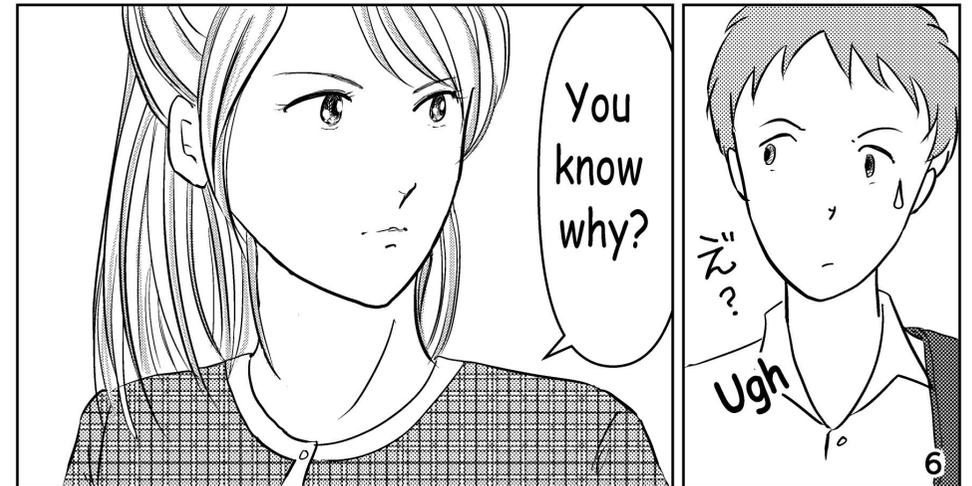
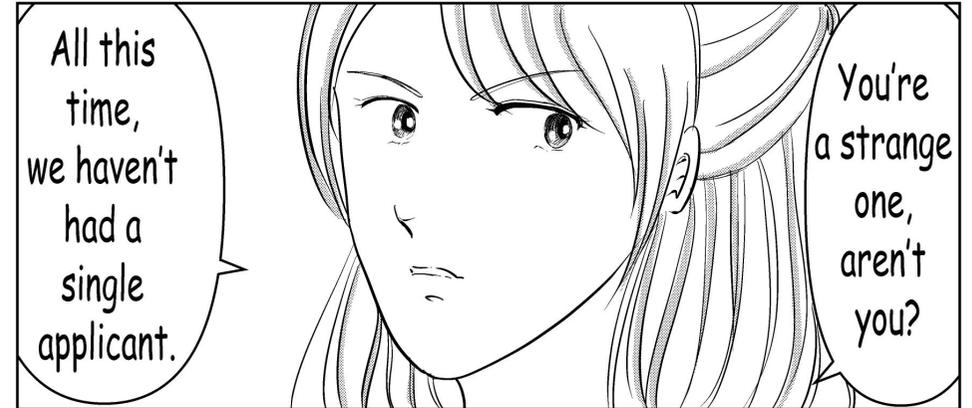
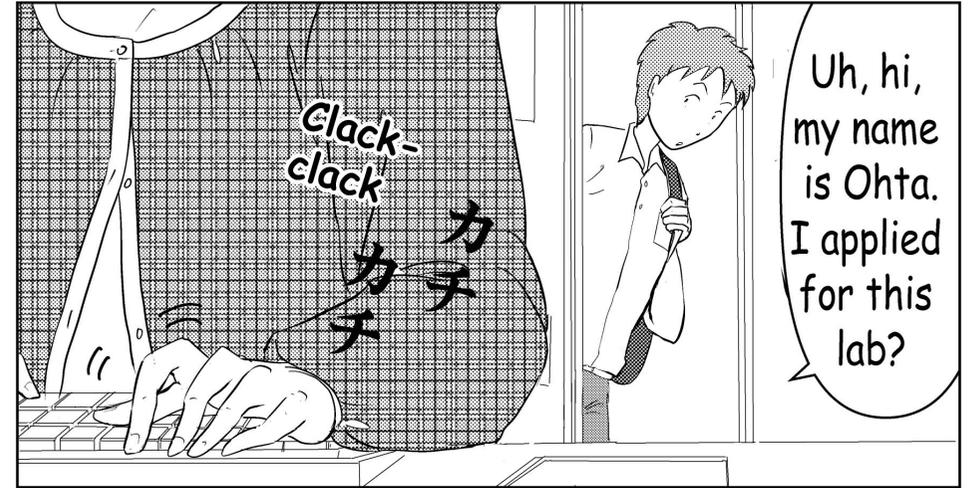
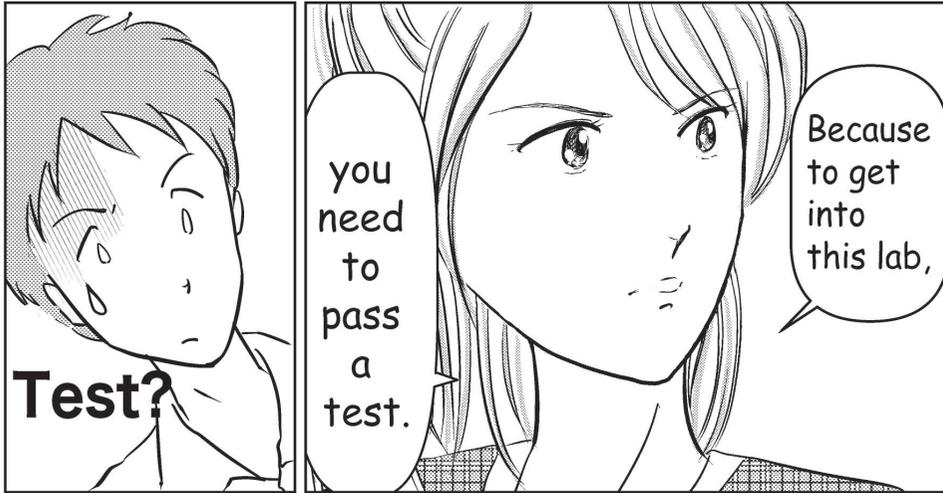
研究内容		ゼミ日
坂本研究室	最先端材料の開発	火曜4時
滝本研究室	有機合成化学	火曜4時
藤田研究室	高分子化学	木曜5時
関研究室	物理化学	木曜5時
近藤研究室	有機合成化学	木曜5時
加藤研究室	有機合成化学	木曜5時

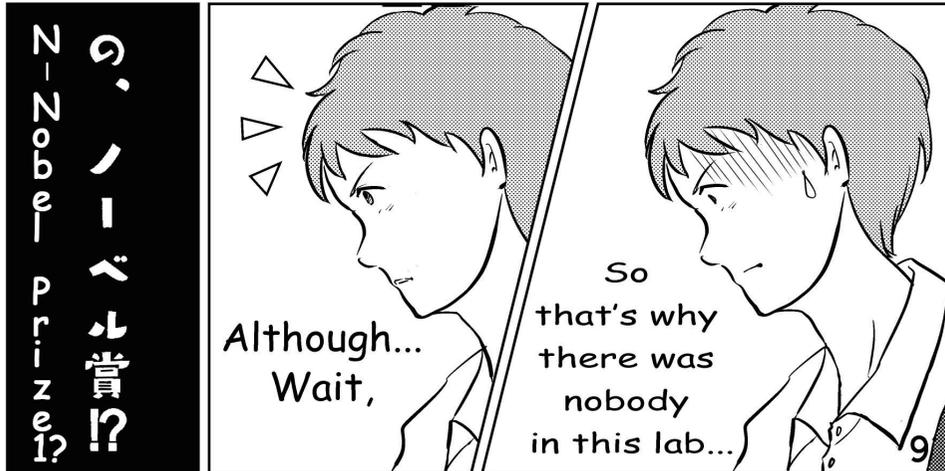
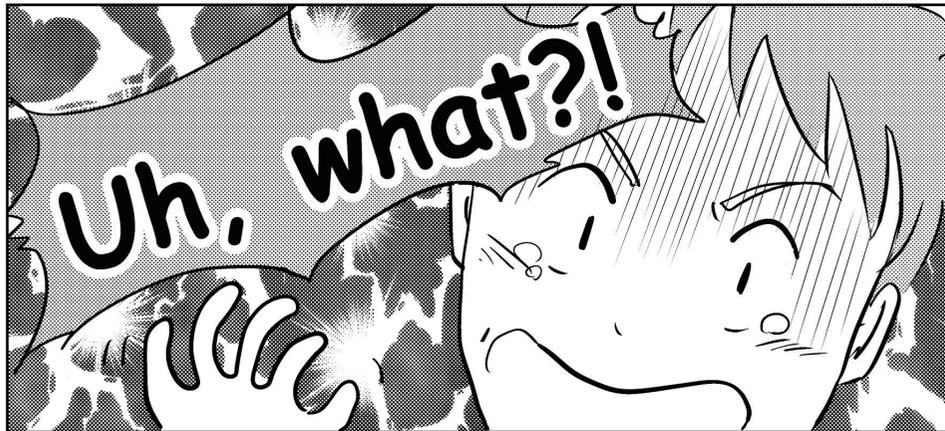


I mean, he does cutting-edge stuff. He's probably busy.

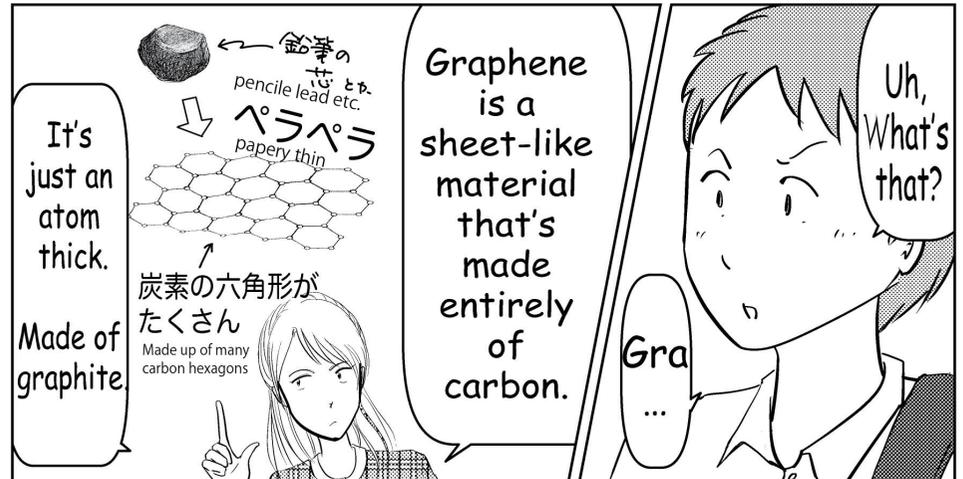
Let me guess—you haven't. He doesn't even teach.

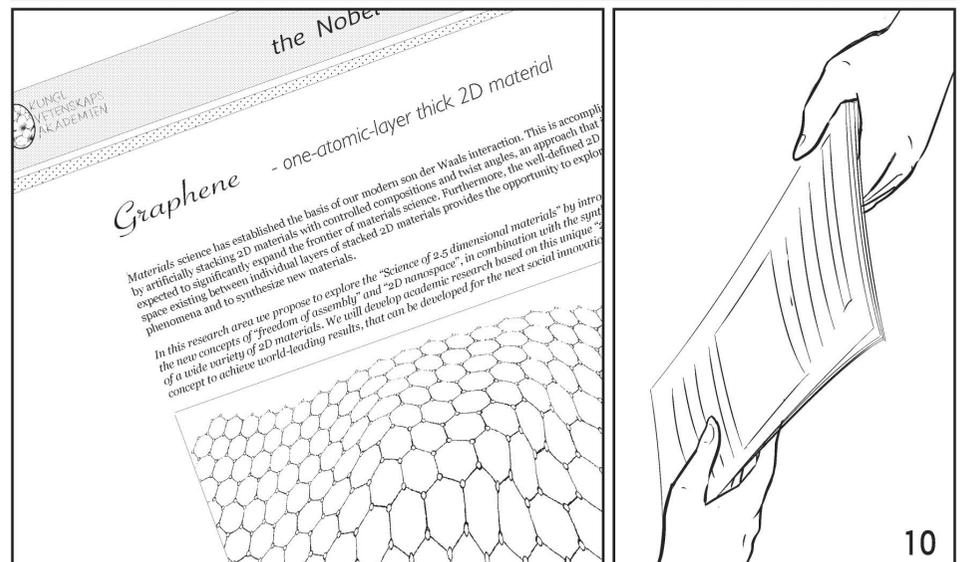
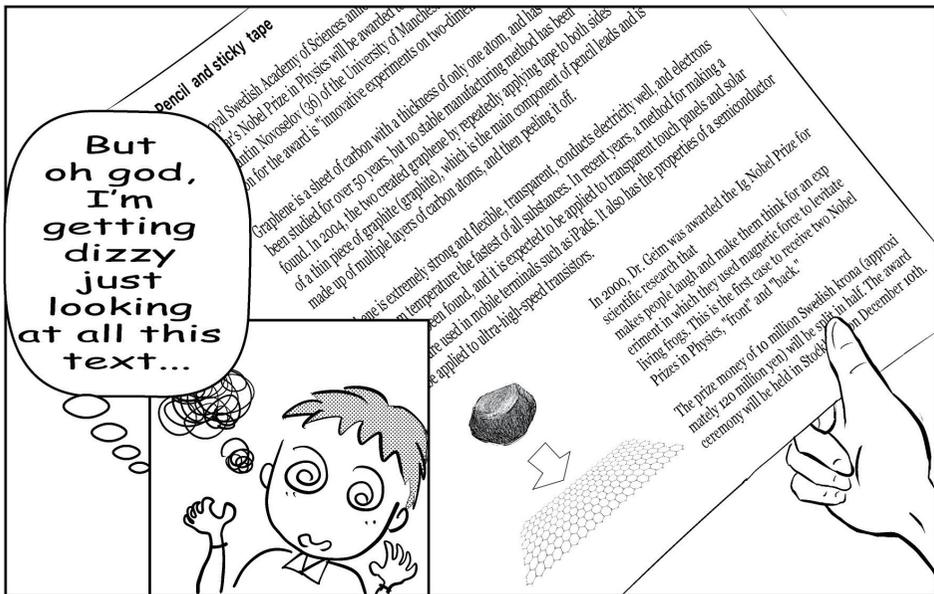
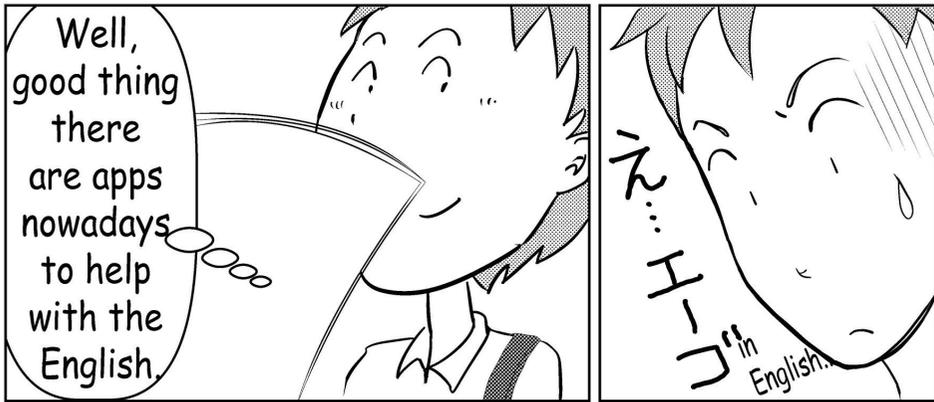
And... have you ever even seen this professor's face?





Z-Zone Prize?
ノーベル賞?





What is Professor Ando planning to do with this graphene anyway?

うん、Dump



Semiconductors, photonics devices...

半導体、光子デバイス...

Flexible transparent electrodes.

柔軟な透明電極

To make rare metal-free touch panels.

レアメタルフリーのタッチパネルを作る

Although, it does look like graphene could be used in a lot of different places.

Huh. We can make it bigger.

CV...

科学技術ニュース社

科学技術NEWS

Wait. Solar panels?

It can be used to make solar panels?

Graphene is so small.

17

Hey, don't even joke.

うん

Hey, soon-to-be fifth-year

I guess it wasn't just a flimsy sheet of carbon.

お前がだ
You are again.

and will probably have to stay another year to graduate?

What, about the fact that you chose a weird lab and won't be able to write a senior thesis

See, I told you it was a bad idea.

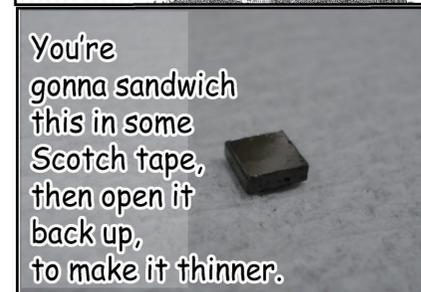
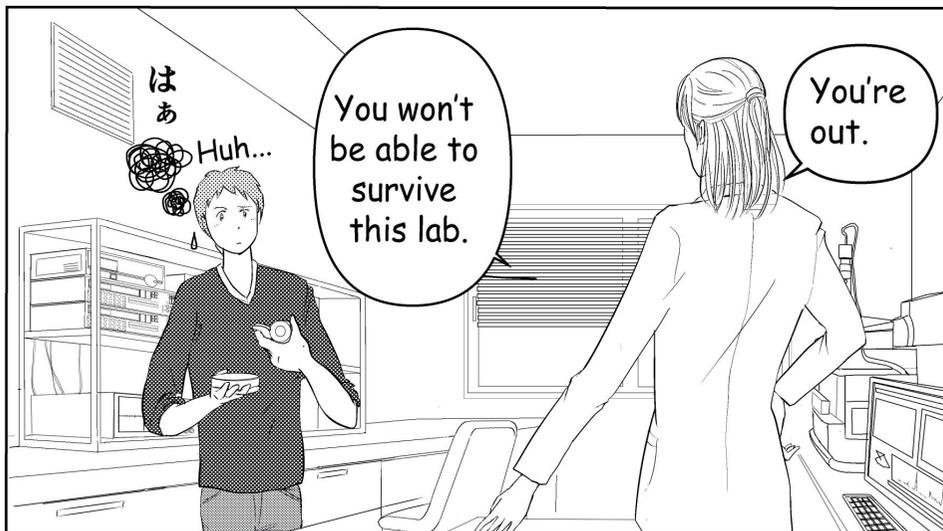
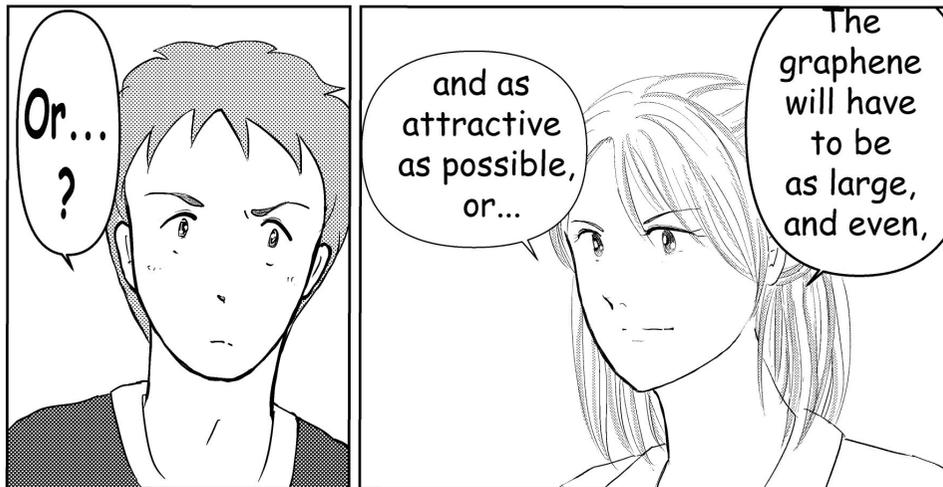
Uh, what?

Really?

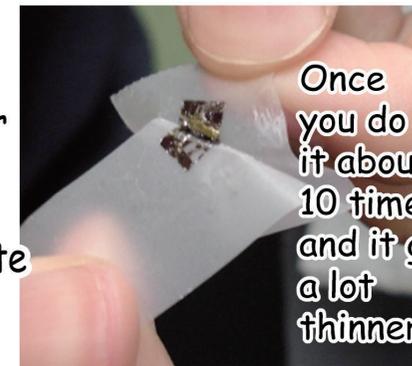
あーあ

Turns out they might not even let me into the lab.

16



...you'll transfer it to a silicon substrate



Once you do it about 10 times and it gets a lot thinner...





Excuse me,
why does this peel so nicely like this?

10th...

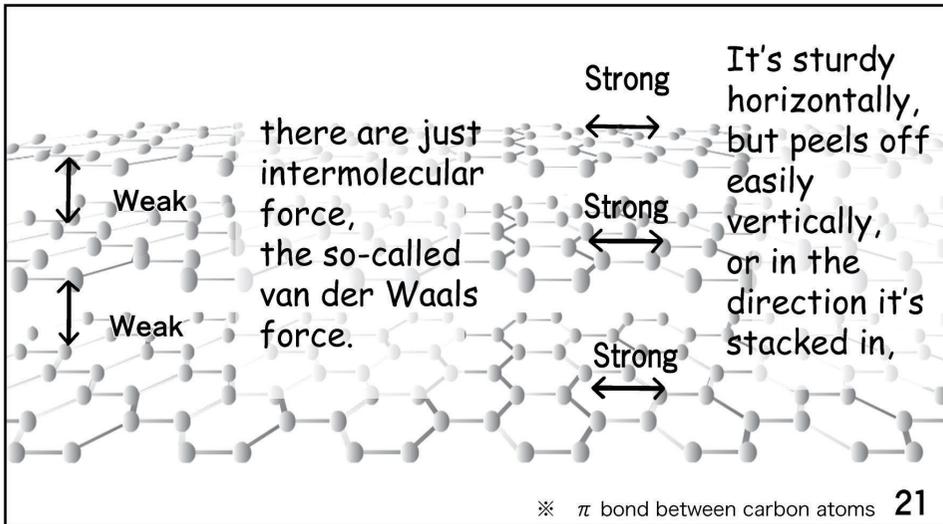
Don't tell me you didn't read the paper.

Was there such a word?

oops

The van der Waals force.

Turn



Why is it so small

But god, am I clumsy.

Do not touch it with your bare hands!

Scared me...

Press it together, and open it back up.

But it's pretty. This is the mass of carbon.

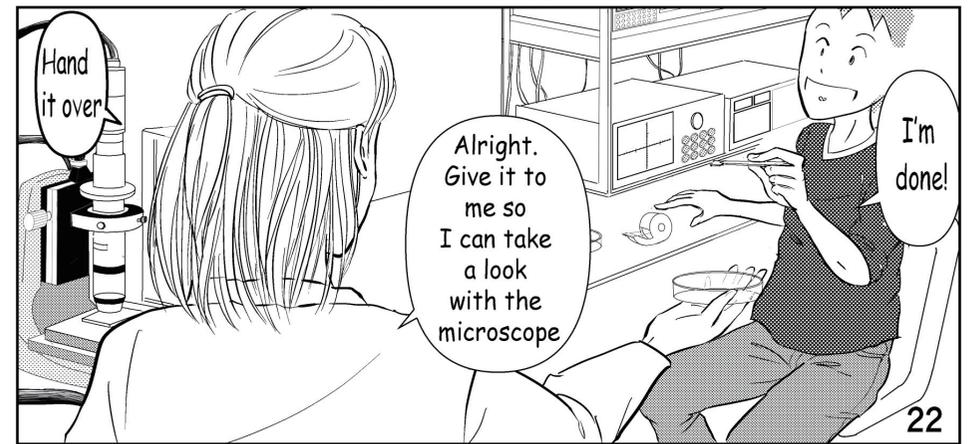
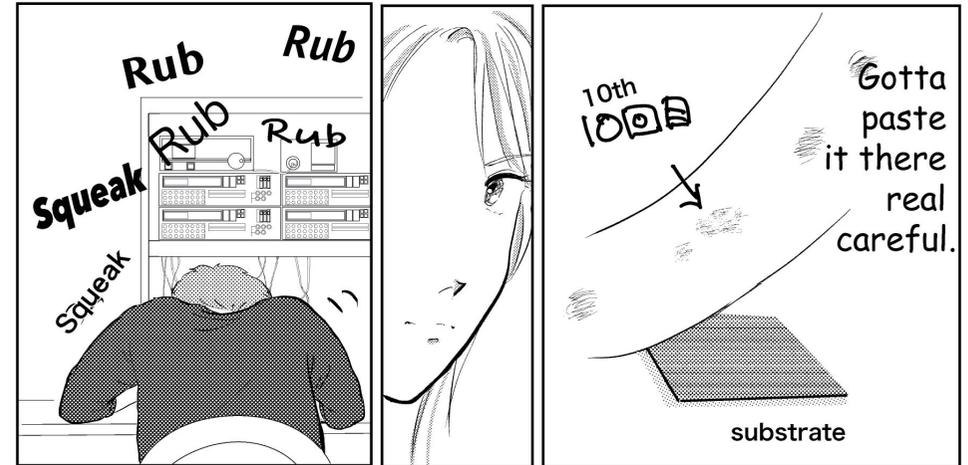
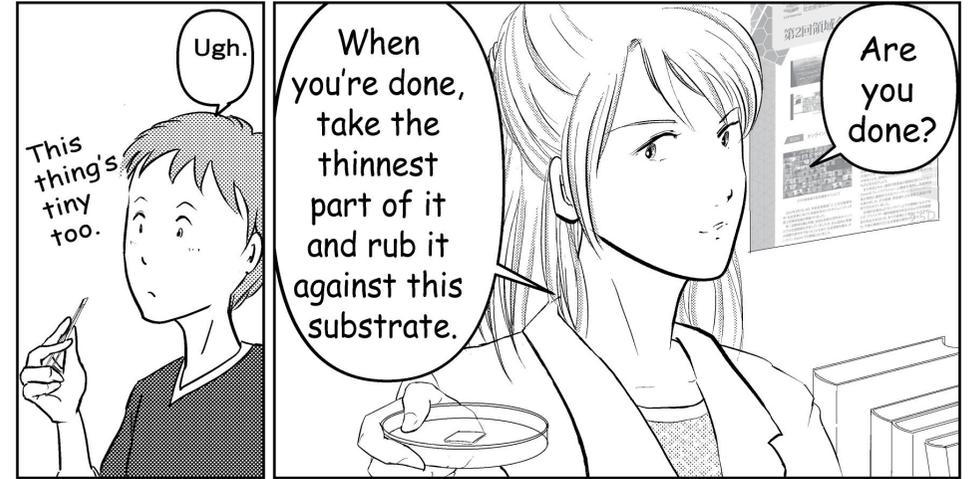
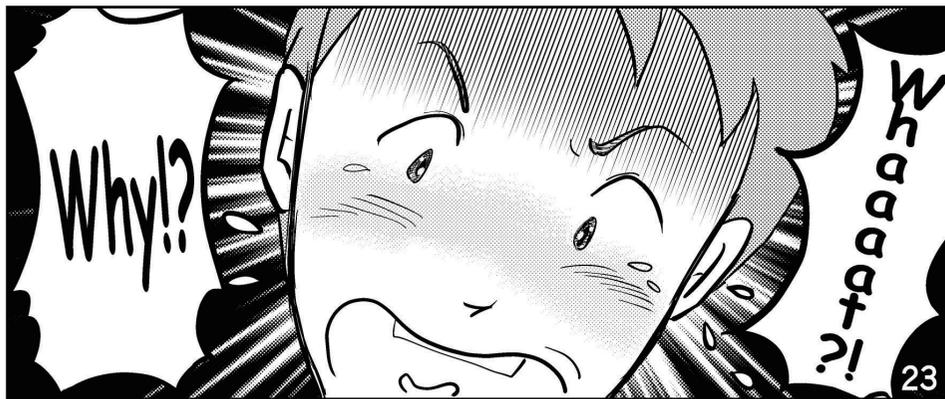
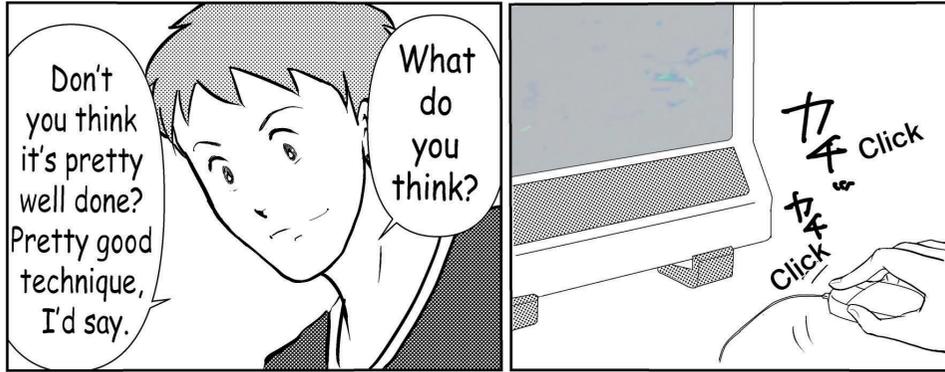
Scared me...

Am I actually pretty good at this?

Hey, it actually peels away pretty nicely.

2nd 1st 3rd

20

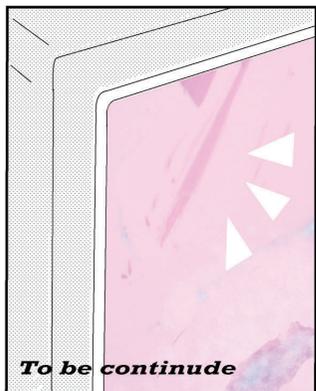




What am I supposed to do?

どおして

はー
ももも
No...



To be continue

Supervised ; Group A02 Tomoki Machida, Professor, Institute of Industrial Science, The University of Tokyo
For more information <https://25d-materials.jp>

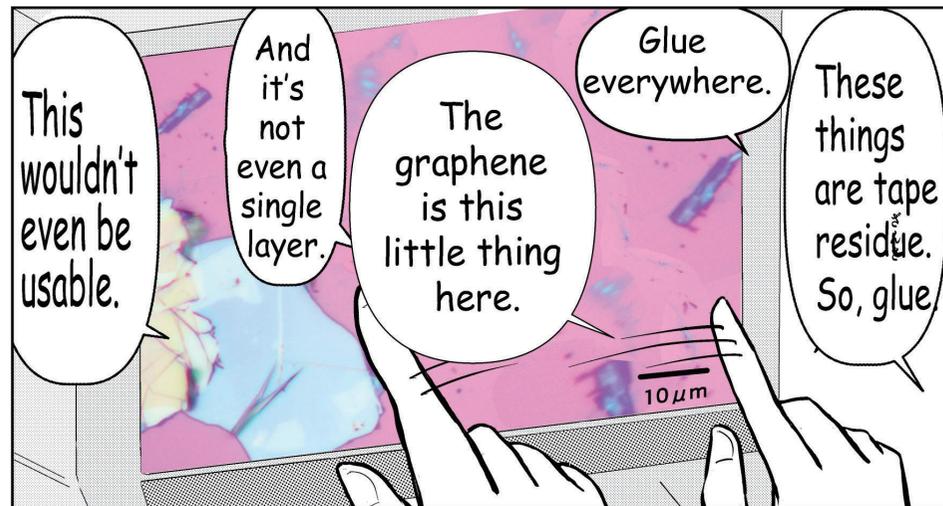
© もんでんひでこ Hideko Monden Support Staff Science communicator



I know.

You know, you're not a very nice person.

There's a pretty big sheet of single-layer graphene on the top left.



This wouldn't even be usable.

And it's not even a single layer.

The graphene is this little thing here.

Glue everywhere.

These things are tape residue. So, glue



Just one more chance.

P-Please just let me try one more time!



Bye!

and you're brute-forcing it.

I was watching you. And you seem clumsy,

Doesn't matter. You'll get the same results.