My work in 2015

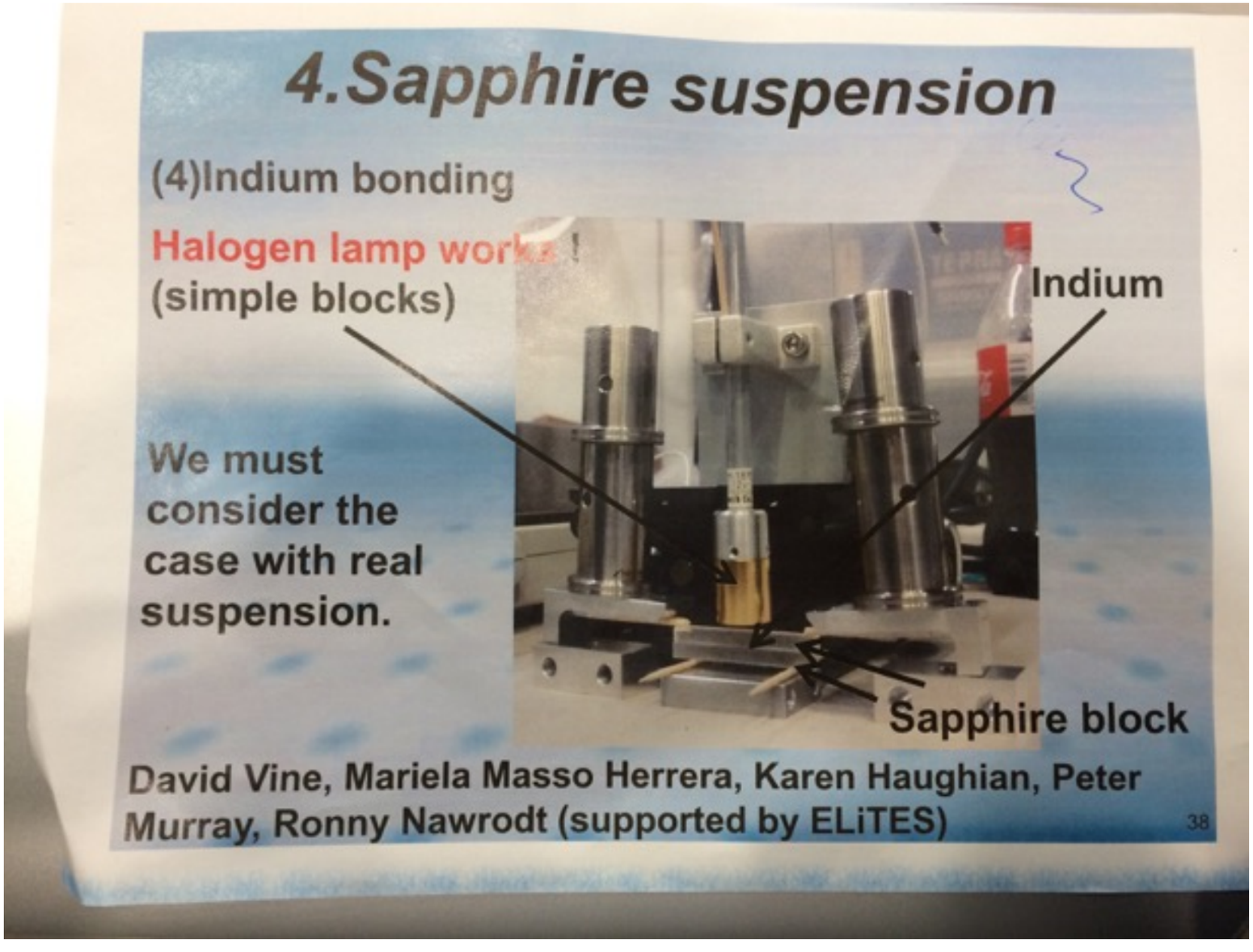
10-1

Hiroki Tanaka

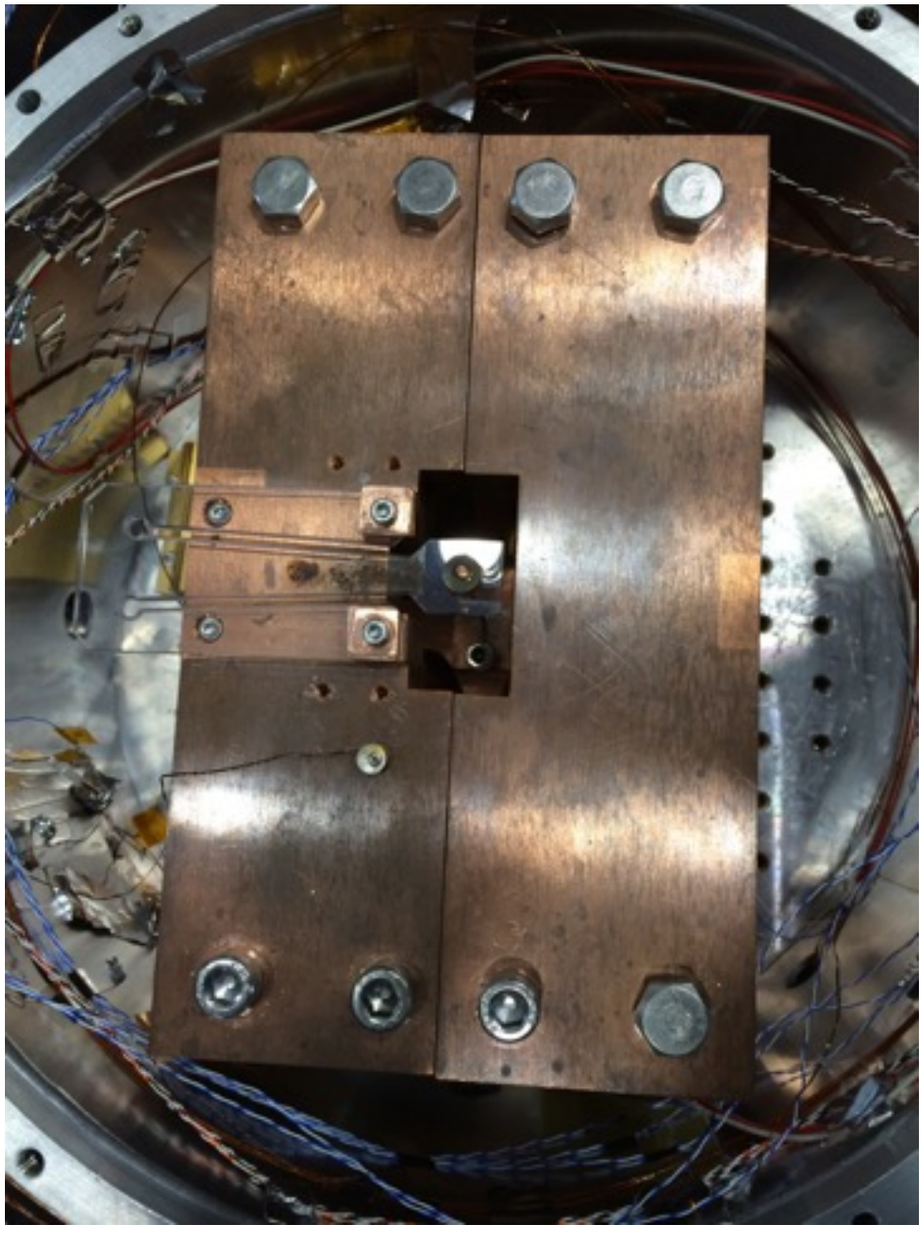
Indium welding

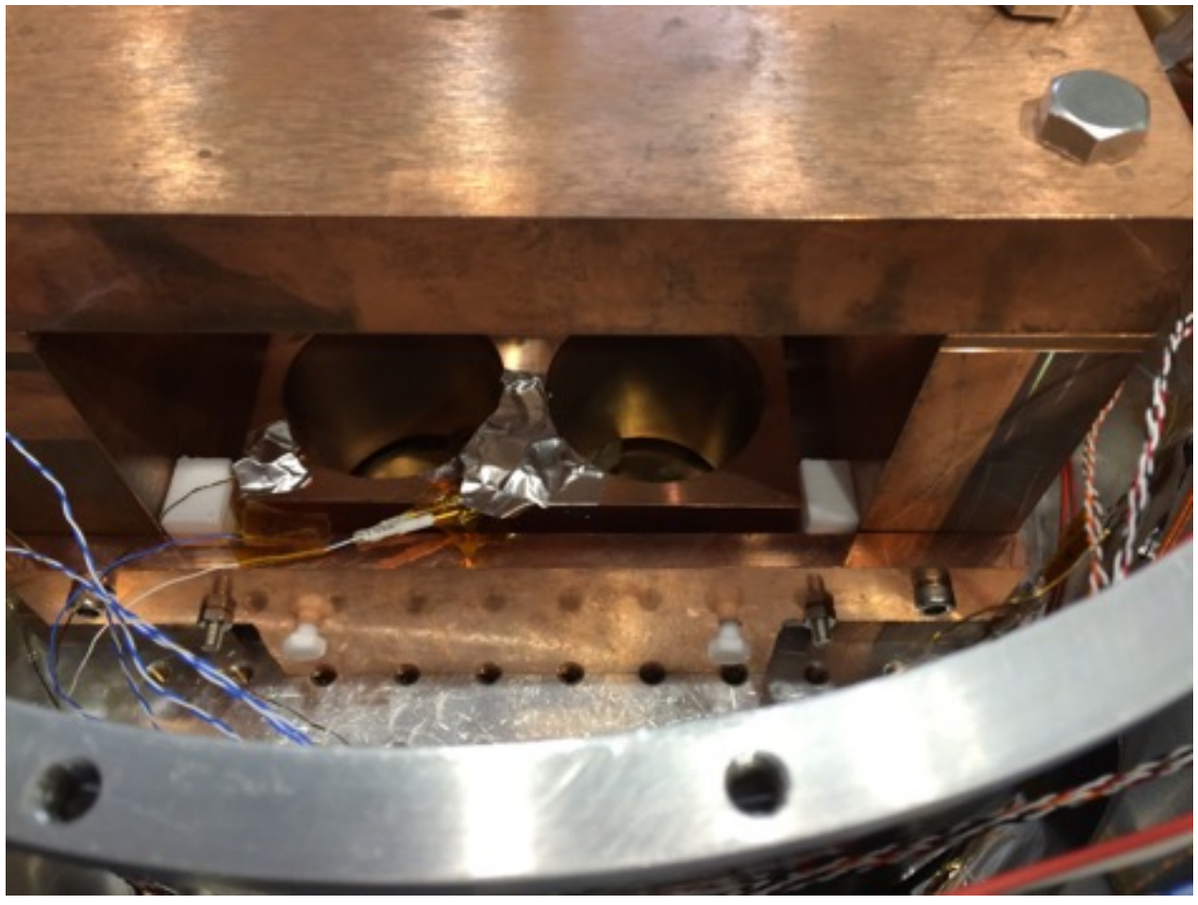
- We did by the same way as David-san did.
- We succeeded to weld two sapphire blocks by Indium.

Indium welding



One fiber prototype



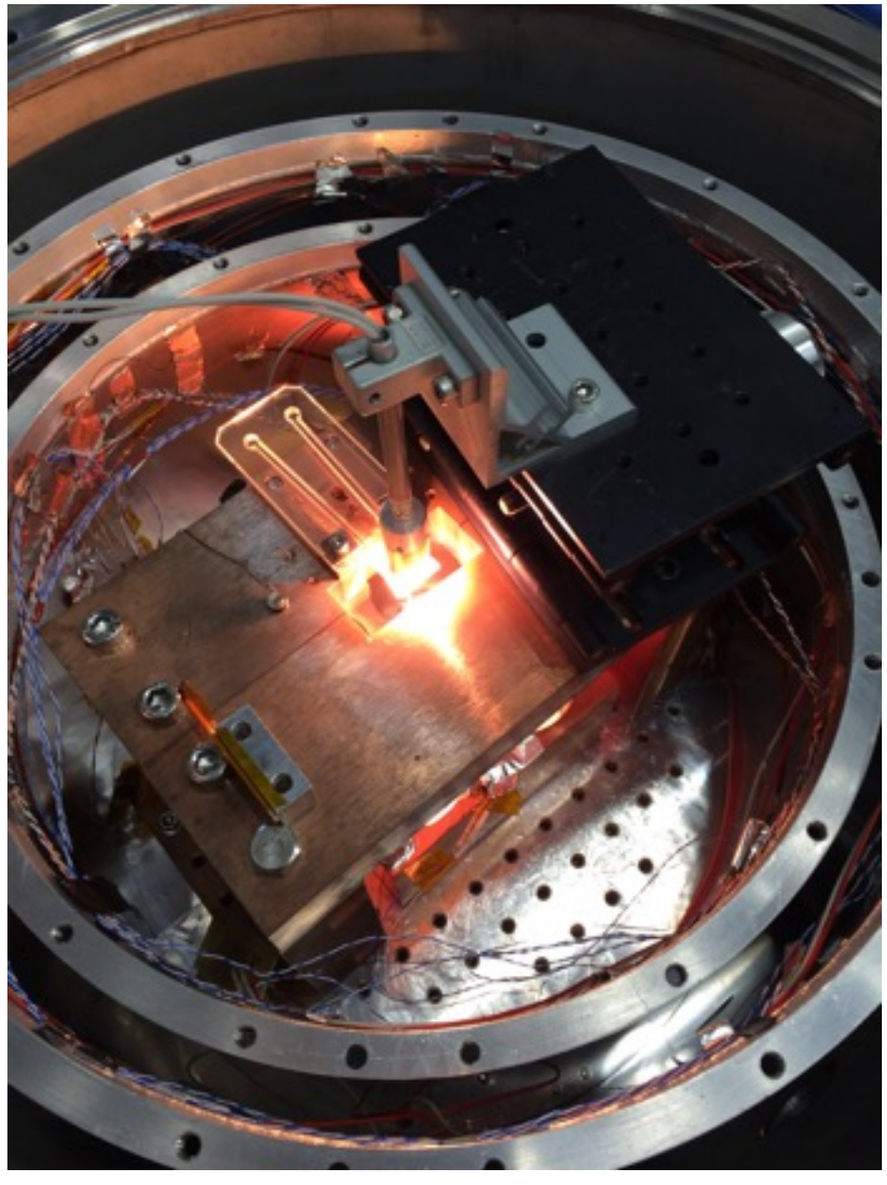


Indium welding

- We inserted the Indium between the fiber head and the blade.

Indium welding

- We tried to do the Indium welding, but the fiber head was not attached to the blade.

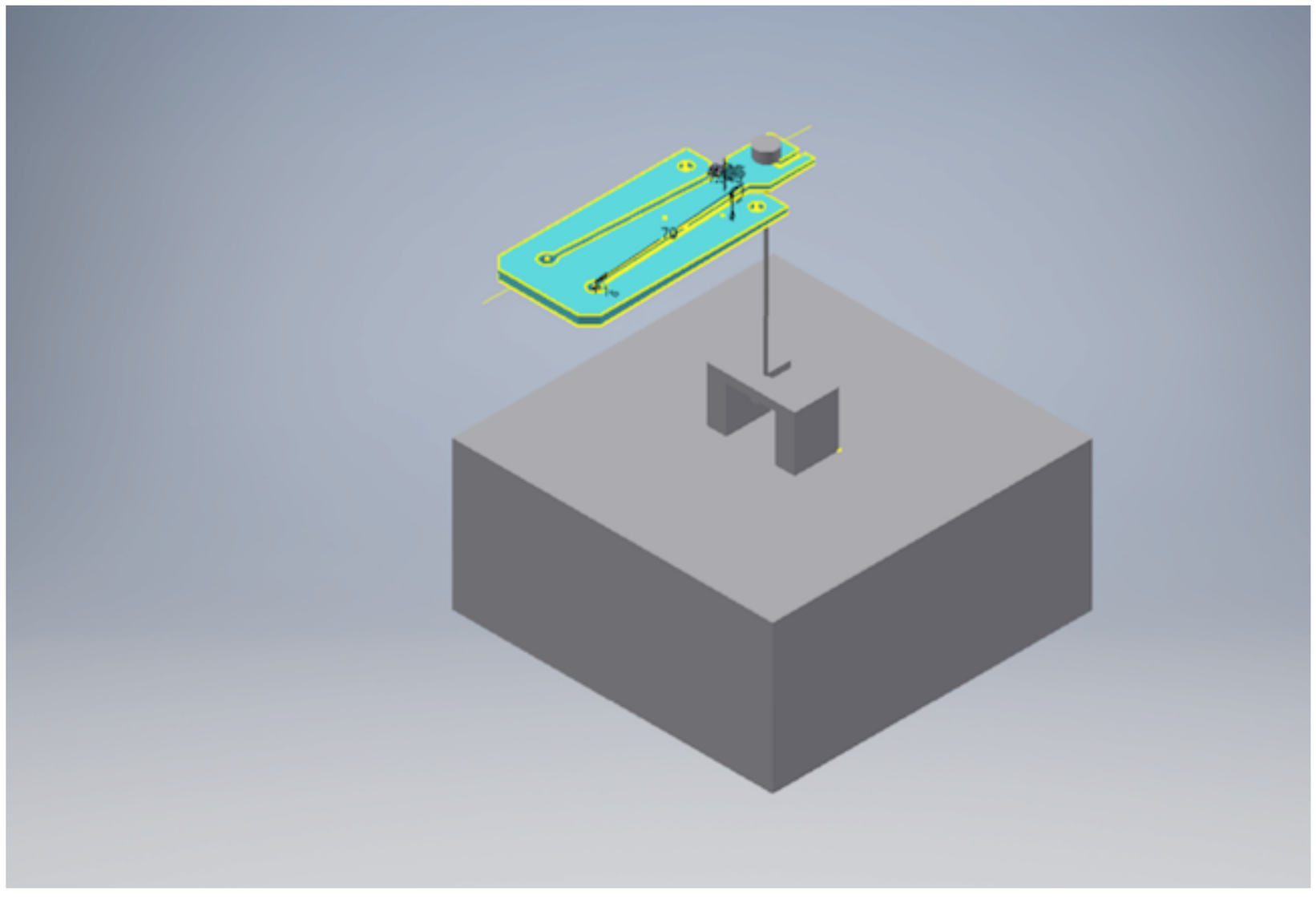


Indium welding

- We tried to do the Indium welding between the blade and the sapphire block.

- They were attached!

Ansys



Ansys

- I read the paper Rahul-san gave me last week.
- I will calculate the Q-value of the one-fiber prototype using the equation below.
- I calculated using the equation→D=3.8(SENE…24, KENE…68)

$$\phi_{\text{total}}(\omega) = \frac{1}{D}\left(\frac{E_1}{E_{\text{total}}}\phi_1(\omega) + \frac{E_2}{E_{\text{total}}}\phi_2(\omega) + \cdots + \frac{E_n}{E_{\text{total}}}\phi_n(\omega)\right),$$

Future work

- We will continue the Indium bonding between the fiber head and the blade.
- We will calculate the Q-value of one-fiber prototype using Ansys.