

Supplementary Material:

S1. The leakage test by using a helium detector

The leakage rate of the brazed sample was measured under vacuum mode using a helium detector (UL200, INFICON, Switzerland). At first, the sample was connected to the helium detector and evacuated by the turbo-molecular pump (Figure S1). And then, the outside of the sample was sprayed with helium gas. If there is any leak on the sample, gas will pass through the leak via pressure difference exerted on both sides. Finally, the measured value of the leakage rate was determined by the built-in mass spectrometer. Based on the analysis mentioned above, the average leakage rate of the brazed sample is around 1.2×10^{-5} mbar·L/s (Table S1).



Figure S1. The leakage test by a helium detector (UL200, INFICON, Switzerland).

Table S1. The leakage rate of the brazed sample

Sample no.	Leakage rate (mbar·L/s)	Average \pm std (mbar·L/s)
#1	1.77×10^{-5}	$(1.16 \pm 0.50) \times 10^{-5}$
#2	5.50×10^{-6}	
#3	1.20×10^{-5}	
#4	1.10×10^{-5}	