



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA
DEPARTMENT OF PHYSICS AND ASTRONOMY
"AUGUSTO RIGHI"

Bologna, 8/2/2022

Erratum regarding:

“Measurement of SK-Ecat performance in a series of sessions from October 20 to November 19 2021”

During a discussion with some colleagues, I realized that in this report there are some procedural flaws that compromise its scientific validity.

I was made to observe that the correct procedure for the measurement of resistance, given its low value, had to be done with an equipment able to make the measurement with 4 cables, thus measuring the actual potential difference at the ends of the resistance, and that a more accurate description of the procedure for the measurement of the chain consisting of the electrical cables that connect the resistance to the multimeter was necessary. The risk is therefore to have measured a higher resistance value than the real one.

We also note that there was no measurement of the resistance at operating temperatures. Even if the resistor was immersed in a bath of 5kg of insulating oil, the temperature rise could have increased its value from that measured at room temperature by 100ppm/K thus decreasing the value of the measured power.

In the measurement of the input power could be present errors since it was done in differential mode and the measured powers were small compared to the sensitivity of the instrument.

Based on the above considerations, the results and conclusions of the report lack rigor and have no scientific validity.

Therefore, the considerations reported in section 5, which concern possible applications of the devices, are meaningless.

Sincerely,

Dr. Giuseppe Levi