



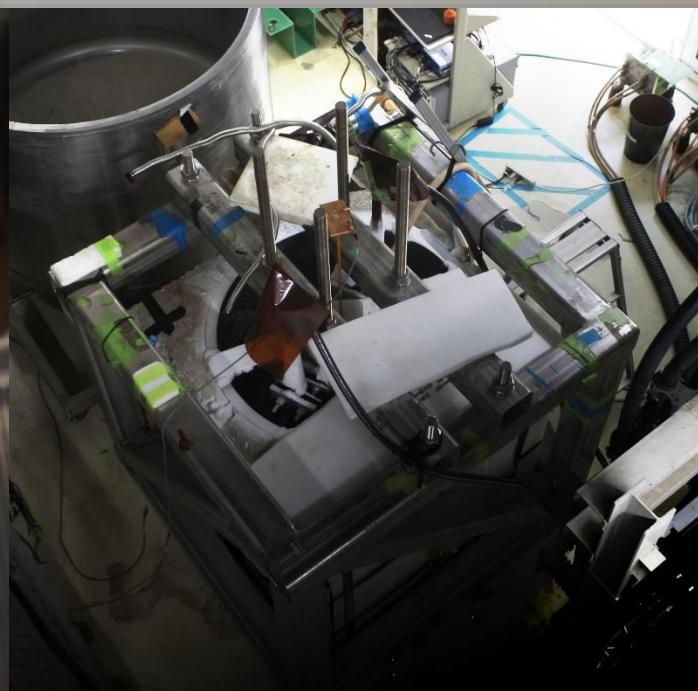
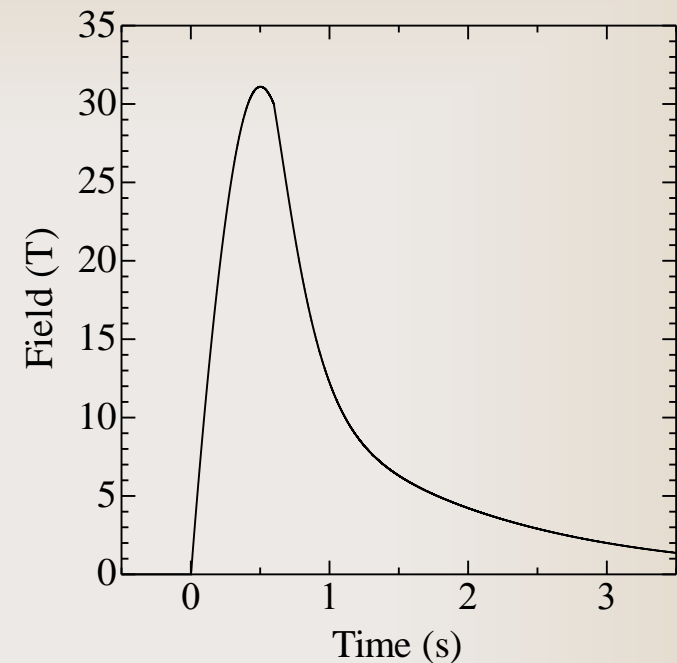
Super Capacitor Bank Operational Test

Energization Test Using Mono Coil Long Pulse Magnet

In early June 2023, we performed operational tests.

In the test using the 60MJ bank, we successfully generated a maximum magnetic field of 31.1 Tesla with a charging voltage of 1600V and a maximum current of 7.5kA. The rise time was approximately 0.5 seconds, resulting in a long-pulse magnetic field with a long tail.

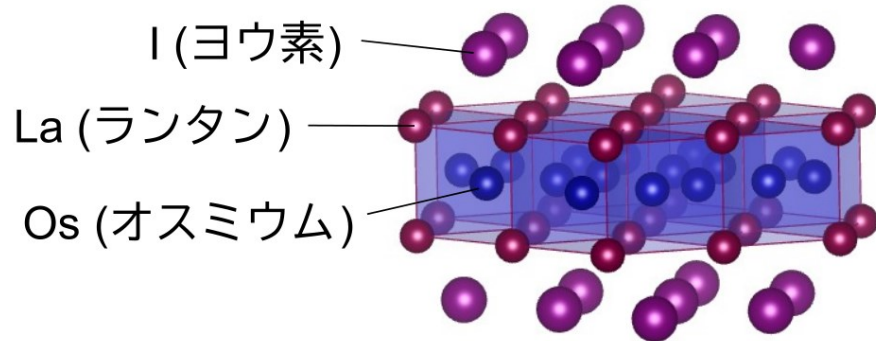
This is the first step towards synchronizing the excitation of the three banks with the three-stage coil.



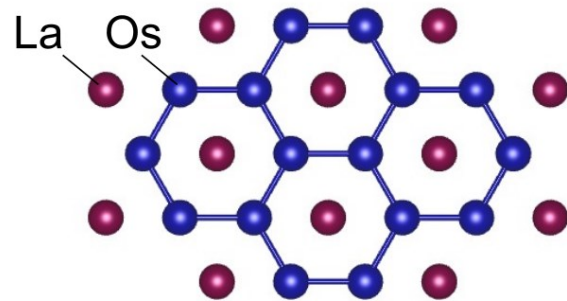
Discovery of a New Superconductor

We published a paper on the discovery of a new superconductor with high upper critical field. We will perform experiments using our pulse magnet.

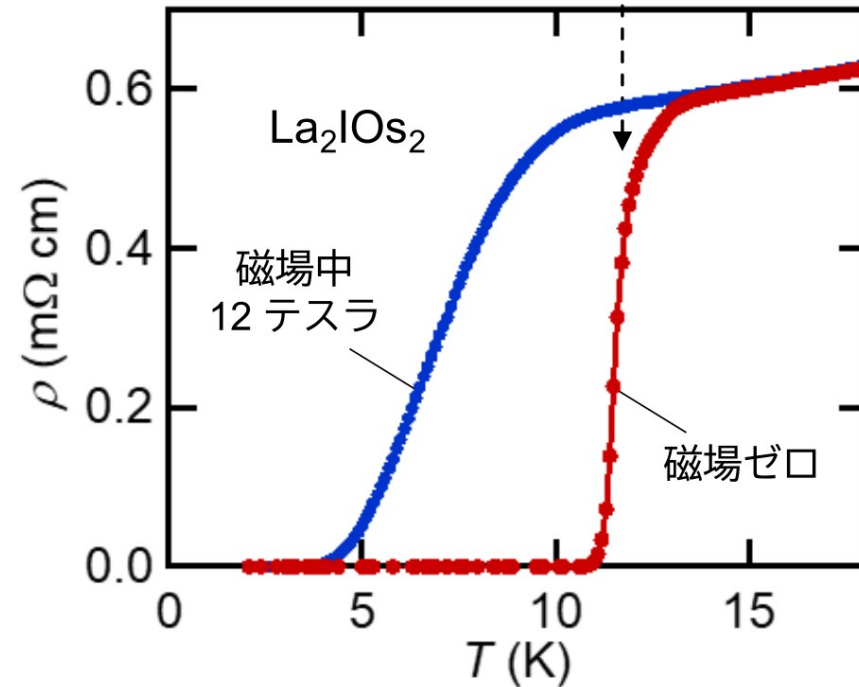
新超伝導物質 La_2IOs_2 の結晶構造



オスミウム "アニオン" のハニカム格子



超伝導転移温度 12 ケルビン



“Superconductivity at 12 K in La_2IOs_2 : A 5d metal with osmium honeycomb layer”
H. Ishikawa, T. Yajima, D. Nishio-Hamane, S. Imajo, K. Kindo, and M. Kawamura,
Phys. Rev. Materials 7, 054804 (2023).