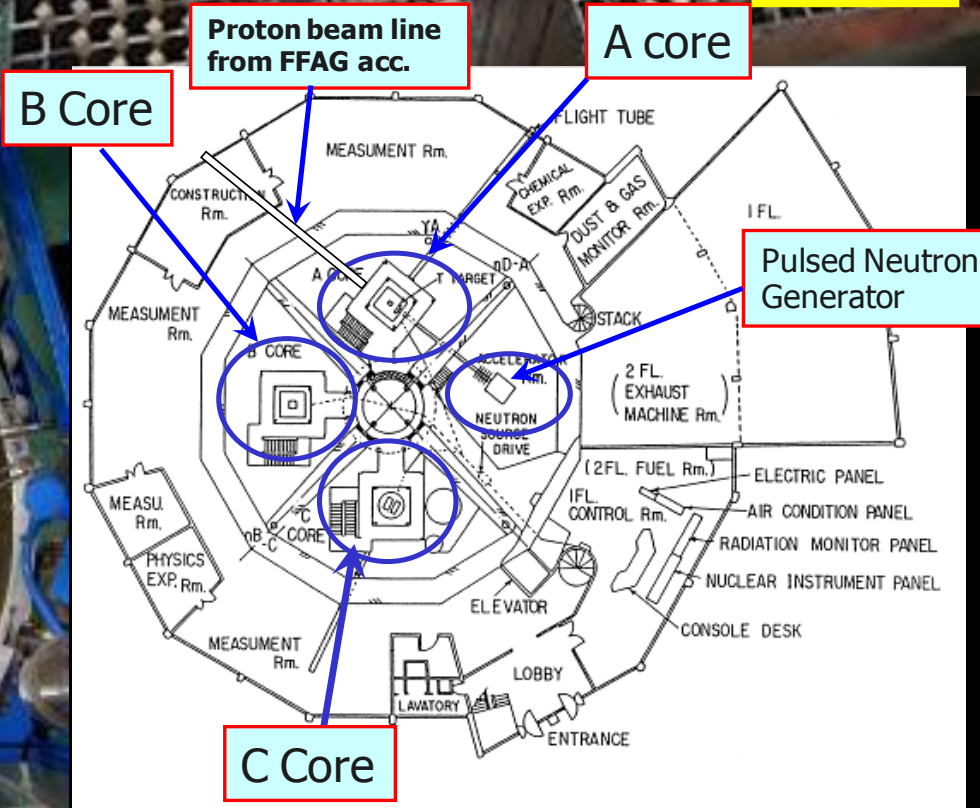
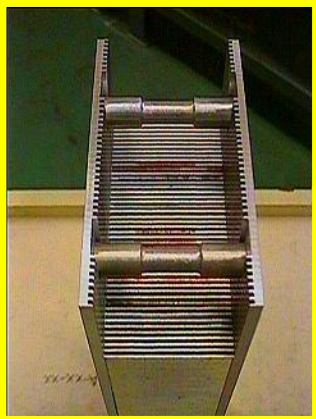
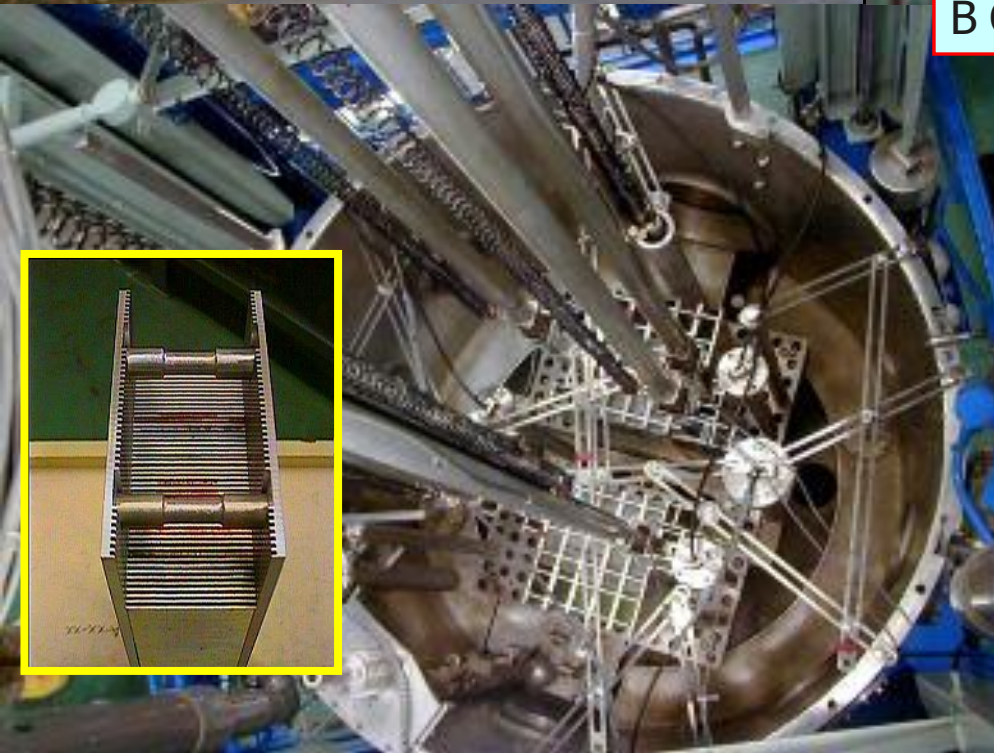
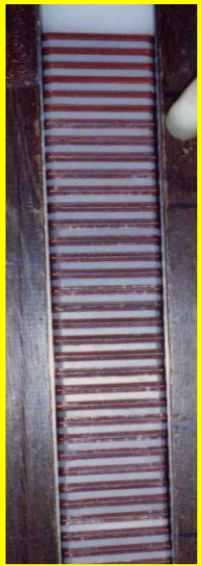
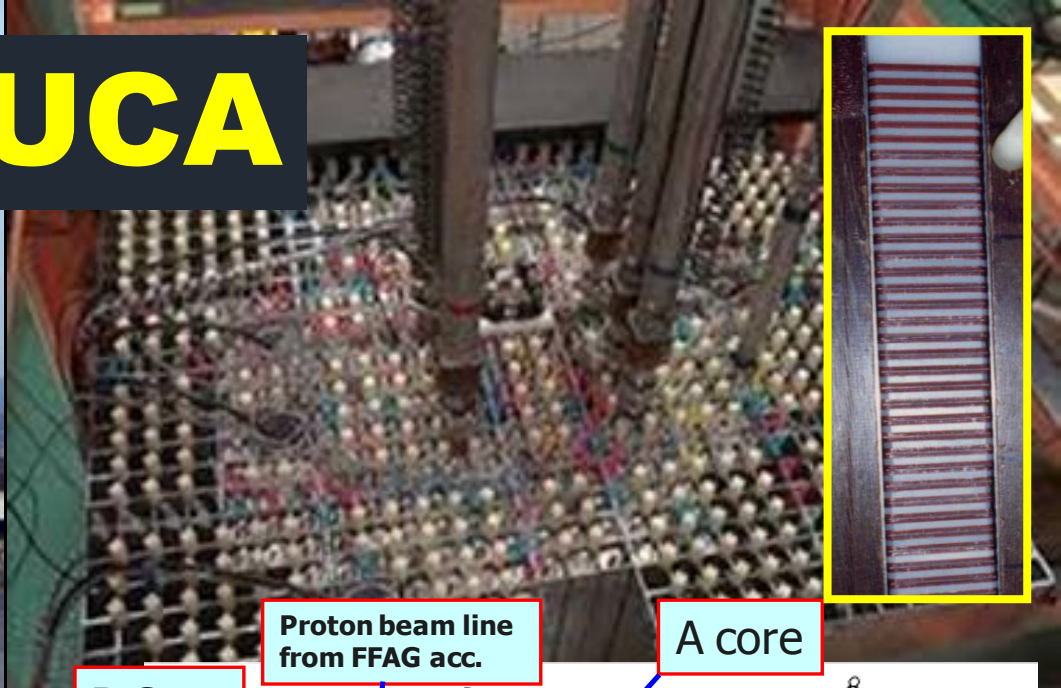


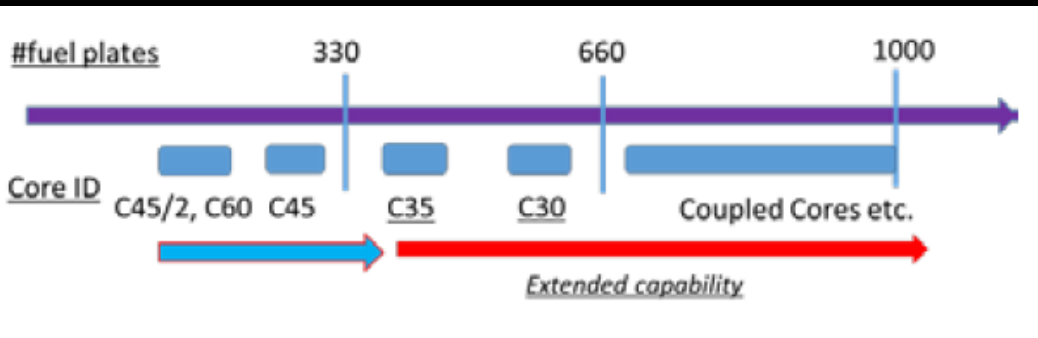
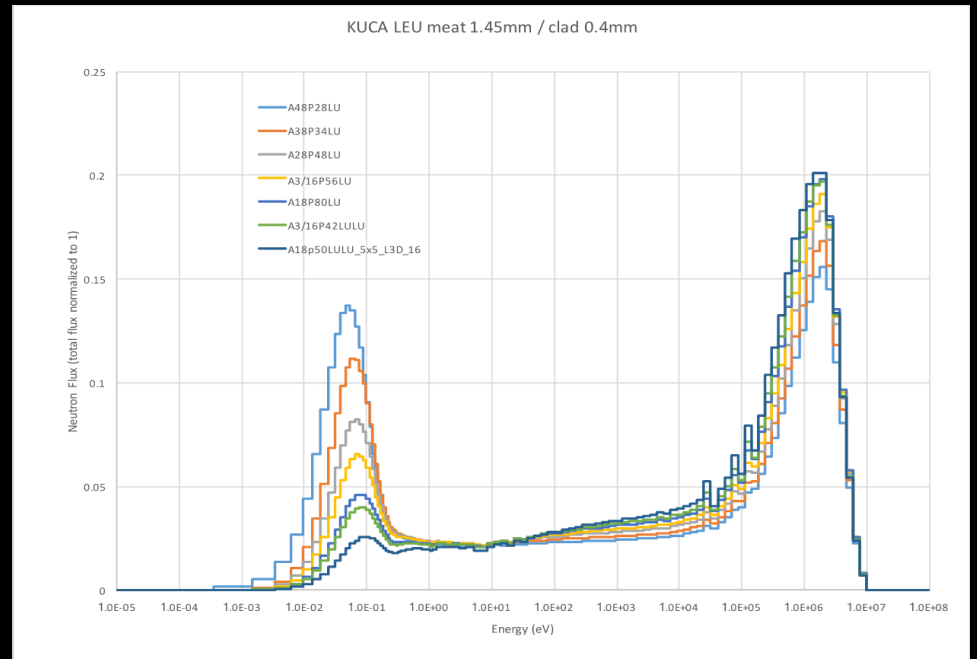
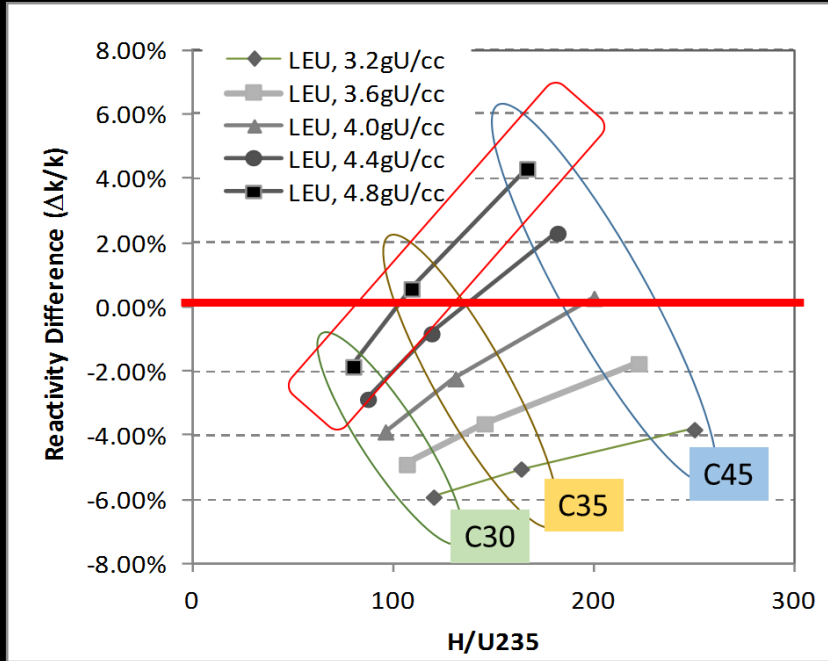
# **KUCA CONVERSION PROJECT - CHALLENGES AND ACHIEVEMENTS**

Hironobu Unesaki  
KURNS, Kyoto University  
JAPAN

# KUCA

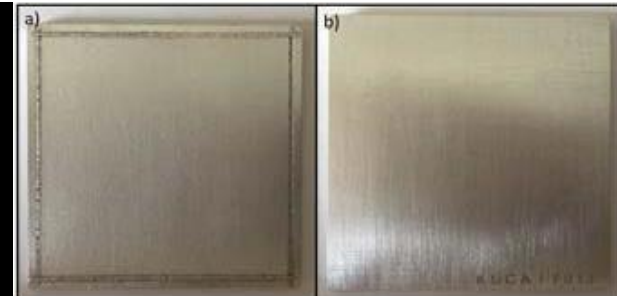
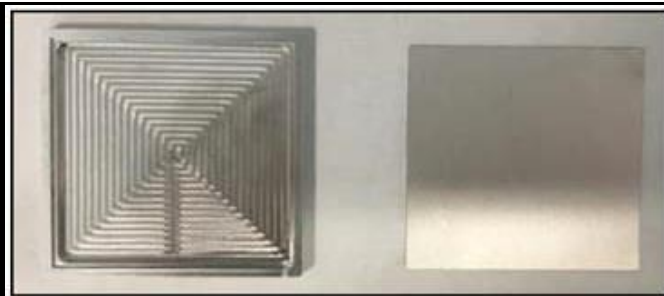


# Numerical (Computation) Studies



Core ID	#coupon	Note
A4/8"P28 LU	700	Single region core
A3/8"P34 LU	764	Single region core
A2/8"P48 LU	1008	Single region core
A3/16"P LU	1288	Single region core
A1/8"P80 LU	2080	Single region core
A3/16"P42 LU-LU	2772	Single region core
A1/8"P50 LU-LU + driver	3044	5x5 Zone core with A3/8"P34 driver fuel

# Fuel Technology Studies



# KUCA Conversion is...

**KUCA Conversion** is expected to be:

- The first critical assembly to be fully converted to LEU
- The first reactor to achieve criticality with UMo fuel full core
- The first systematic series of critical experiment using LEU fuel covering wide variety of neutron spectra

**KUCA Conversion project** is:

- An international collaboration between US, France, Korea and Japan
- A quest for scientific interest in neutronics and fuel development
- An ambitious challenge to simultaneously fulfil the HEU minimization requirement and achieve extended reactor performance after conversion