



Masatoshi Kondo Laboratory

Research into Innovative Liquid-Metal Coolant Systems for Nuclear Reactors

Laboratory for Advanced Nuclear Energy (LANE)

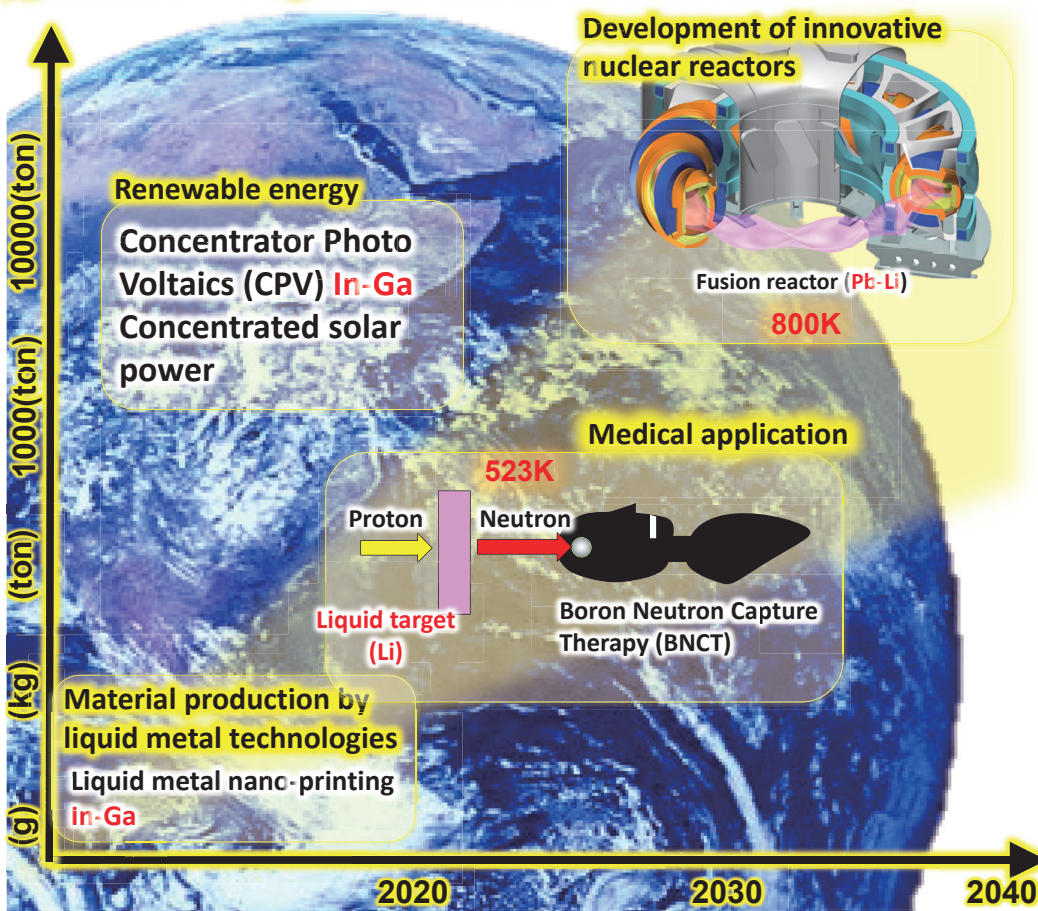
<http://www.lane.iir.titech.ac.jp/~kondo.masatoshi/index.html>

- Development of liquid-metal coolants
- Materials compatibility of liquid metal coolants
- Innovative energy conversion system by liquid metals
- Social implementation of liquid metal technologies into various fields (e.g. construction materials and robotics) based on interdisciplinary researches



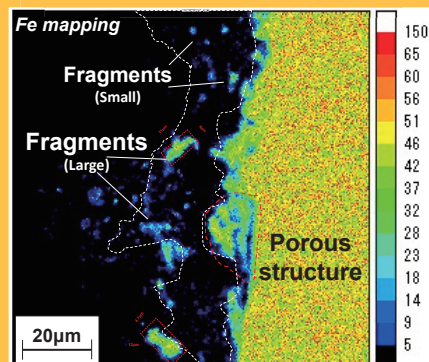
Various high-performance liquid metal coolants (Pb, Pb-Bi, Li, Pb-17Li, Sn, etc.) are currently being researched in our laboratory for use in fast and fusion reactors worldwide. Experimental investigations of the synthesis and thermophysical properties of these materials are underway.

Application of liquid metals to various fields

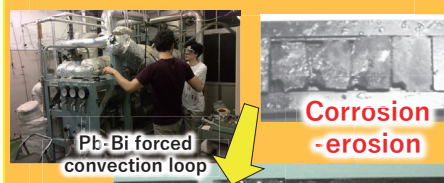


Research on important issues

Material compatibility and its improvement



Improvement of material compatibility by chemical control of liquid metal



Protective oxide layer formation