

Wettability of Liquid CsI on Polycrystalline UO₂

Hiroto Ishii¹, Ken Kurosaki^{1, 2}, Yukihiro Murakami³, Yuji Ohishi¹, Hiroaki Muta¹,
Masayoshi Uno³, Shinsuke Yamanaka^{1, 3}

1:Osaka University, 2:JST, PRESTO, 3:University of Fukui

- Our group has confirmed that liquid caesium iodine (CsI) showed high wettability against polycrystalline UO₂ solid surface^[1].
- Deep understanding of the liquid CsI behaviour on polycrystalline UO₂ solid surface is beneficial to clarify the release behaviour of Cs and I from fuels.
- The present study investigated the effects of solid surface for wettability of liquid CsI by using the sessile drop test with 4 types of solid samples including polycrystalline UO₂.

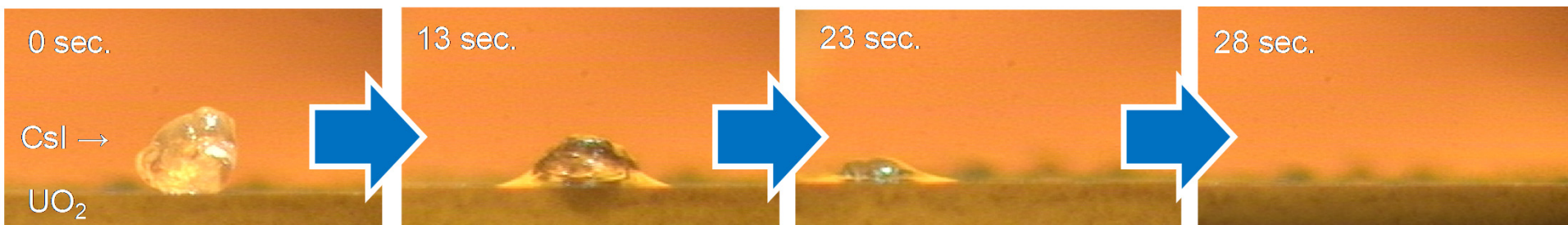


Fig. 1. Melting behaviour for CsI added to polycrystalline UO₂.

[1] K. Kurosaki, M. Suzuki, M. Uno et al, "High wettability of liquid caesium iodine with solid uranium dioxide", Sci. Rep. 7, 11449 (2017).