## U<sub>3</sub>Si

## Observation on the Extinguishing Capability of Fire Extinguisher for $U_3Si$ Atomized Powder

150

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가

. UL, DIN, ISO  $1.3 \text{kg U}_3 \text{Si}$ 

가

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## **Abstract**

For the safe operation of HANARO fuel fabrication facility, proper choice of a fire extinguisher was required, which could effectively extinguish a fire of uranium and uranium alloy powder. The purpose of this experiment was to get a permission of operation of the HANARO fuel fabrication facility and was to ensure and demonstrate the safe extinguishment of a fire because there were no regulations for the uranium powder fire. In this paper, we describe the observations of the extinguishing process of 1.3 kg U<sub>3</sub>Si powder. This experiment was followed according to the UL, DIN, ISO code. We found that the flame of the powder fire was not severe so the extinguisher which was selected could extinguish the fire effectively.

```
1.
                                  U_3Si
           D
                   A, B, C, D
                                             가
                                   (
    ),
                                           ),
                                            (
    (
            ),
                                                   )
                    (NaCI)
                                     (KCI)
                                                                   85 μm
                  Metax
                                        1.3 kg U<sub>3</sub>Si
2.
                 (
                              , Band Saw
                                                  , Chip)
                                                                      가
                                                              가
                         Metax
    가
                                             (A
                                                                  (B
                                                       ),
  ),
            (C
                      )
                                   가
                                          ABC
                                  вс
                                   가
                                                                     가
                                                    가
가
                            가
                                       .
가
                      (UL) ,
                                                (DIN)
                                                          ISO
  D
```

3.

가 Hood 1 2 Box 
$$U_3Si$$
 1.3 kg  $500(W) \times 500(D) \times 100(H)$ mm 가 Heater 가 K-type .

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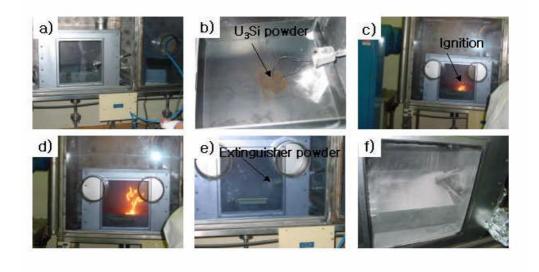
 $U_3Si$ 

4.

400

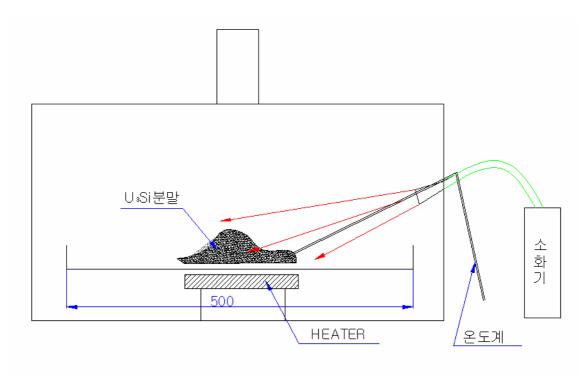
. 가 150 . . . . . . . . . . .

Metax



1. .

- $a) \hspace{1cm} , \hspace{1cm} b) \hspace{1cm} U_3 Si \hspace{1cm} , \hspace{1cm} c) \hspace{1cm} , \hspace{1cm}$
- d) , e) , f)



2.

" "

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- [1] HATSUTA Metax.
- [2] DIN-14406.
- [3] ISO-7165 1<sup>st</sup> ed. 1999, 12.
- [4] UL-711 5<sup>th</sup> ed. Sep,22,1995.
- [5] K.H. Kim, H.J. Kwon, J.M. Park, Y.S. Lee and C.K. Kim "Stable In-reactor Performance of Centrifugally Atomized U-10wt.% Mo Dispersion Fuel at Low Temperature" *J. the Korean Nuclear Society.*, vol.33, No.4, 365-374(2001)