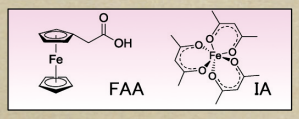
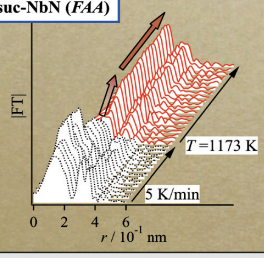
Preparation of NbN without using NH_3

Nb K-edge in situ EXAFS



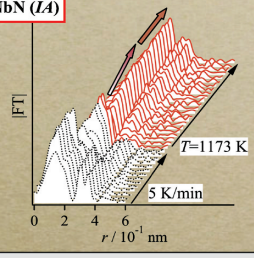
0.18 nm : Nb-N

suc-NbN (*FAA*)



1173 K保持の初期段階から窒化が進行

suc-NbN (*IA*)



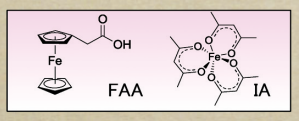
1173 Kの保持段階で徐々に窒化が進行

窒化速度
suc-NbN (*FAA*) > suc-NbN (*IA*)

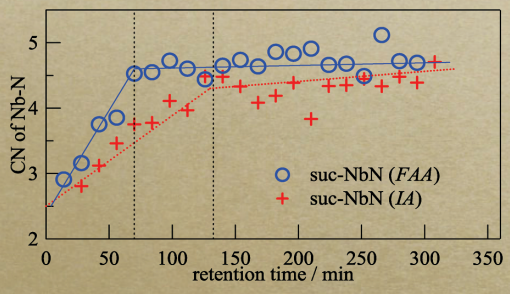
19 december 2008, SAGA LSナノテクセミナー@九州シンクロトロン光研究センター

Preparation of NbN without using NH_3

Nb K-edge in situ EXAFS



~ CN of Nb-N during temperature retention stage ~



*FAA*を用いた触媒の方がNb-Nの配位数の増加が速い

Fe K-edge XAFS 測定の結果より

Feの分散性
suc-NbN (*FAA*) > suc-NbN (*IA*)

→

窒化速度
suc-NbN (*FAA*) > suc-NbN (*IA*)