

Supporting Information for the manuscript

Effects of Carbon Support Nanostructures on the Reactivity of Ru Nanoparticle Catalyst in Hydrogen Transfer Reaction

Takeharu Yoshii,[†] Kazuki Nakatsuka,[†] Tatsuya Mizobuchi,[†] Yasutaka Kuwahara,^{†,‡}

Hiroyuki Itoi,^{//} Kohsuke Mori,^{†,‡,§} Takashi Kyotani,[⊥] and Hiromi Yamashita,^{†,‡}*

[†] Division of Materials and Manufacturing Science, Graduate School of Engineering, Osaka University, 2-1 Yamadaoka, Suita, Osaka 565-0871, Japan.

[‡] Elements Strategy Initiative for Catalysts & Batteries Kyoto University, ESICB, Kyoto University, Katsura, Kyoto 615-8520, Japan.

[§] JST, PRESTO, 4-1-8 Honcho, Kawaguchi, Saitama 332-0012, Japan.

^{//} Department of Applied Chemistry, Aichi Institute of Technology, Yachigusa 1247, Yakusa-cho, Toyota, Aichi 470-0392, Japan.

[⊥] Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, 2-1-1 Katahira, Aoba-ku, Sendai, Miyagi 980-8577, Japan.

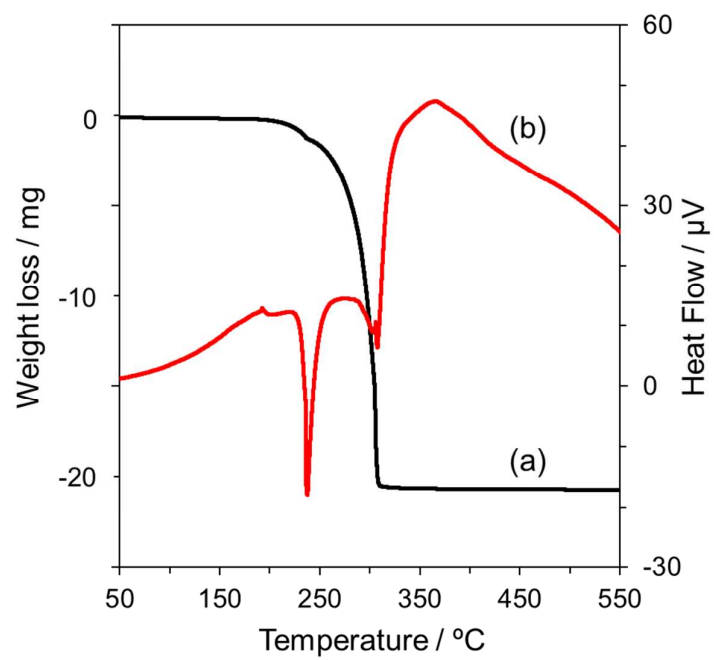


Fig. S1 (a) TG profile and (b) DTA profile of Ru(acac)₃ measured under air flow.

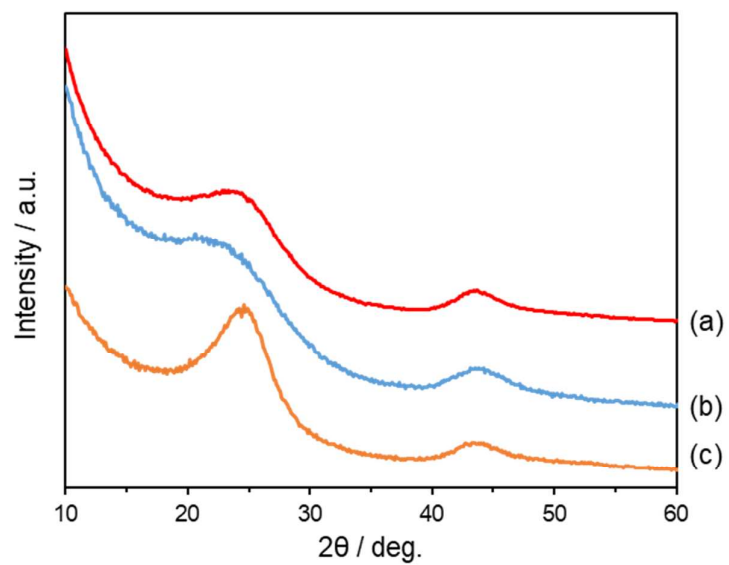


Fig. S2 XRD patterns of (a) Ru/KB, (b) Ru/AC and (c) Ru/VC.

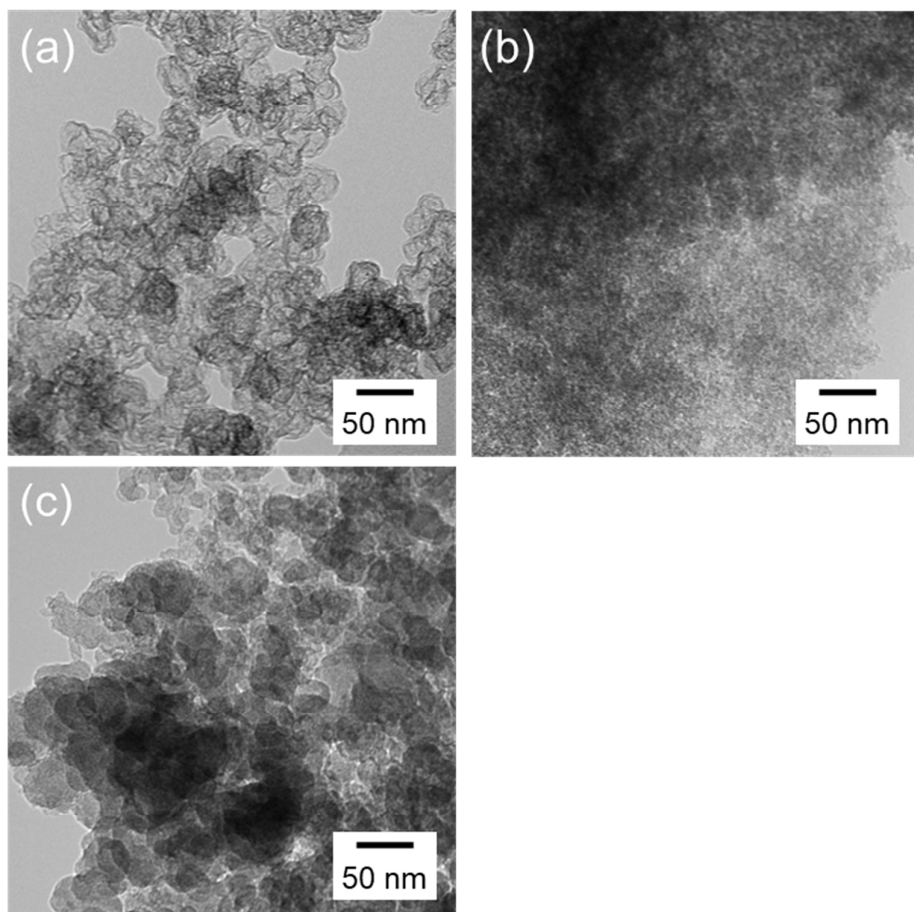


Fig. S3 TEM images of (a) KB, (b) AC and (c) VC.

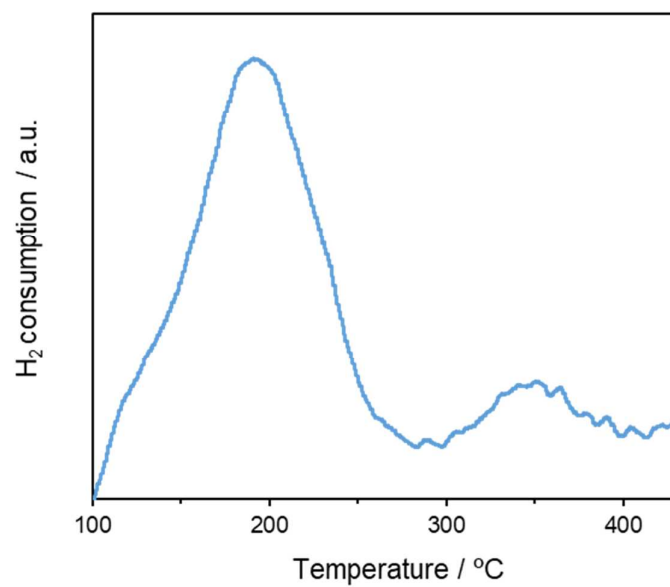


Fig. S4 H₂-TPR profiles of Ru/AC-600.