

Supporting Information for:

**High Temperature Stable WC_{1-x}@C and TiC@C Core-Shell
Nanoparticles by Pulsed Plasma in Liquid**

Zhympargul Abdullaeva ^a, Emil Omurzak ^b, Chihiro Iwamoto ^c, Hiroki Okudera ^d, Michio Koinuma ^e, Shintaro Takebe ^b, Saadat Sulaimankulova ^f and Tsutomu Mashimo ^{* g}

^aGraduate School of Science and Technology, Kumamoto University, Kumamoto, 860-8555, Japan

^bPriority Organization for Innovation and Excellence, Kumamoto University, Kumamoto, 860-8555, Japan

^cFaculty of Engineering, Kumamoto University, Kumamoto, 860-8555, Japan

^dFaculty of Natural System, Institute of Science and Engineering, Kanazawa University, Kanazawa, 920-1192, Japan

^eFaculty of Applied Chemistry and Biochemistry, Kumamoto University, Kumamoto, 860-8555, Japan

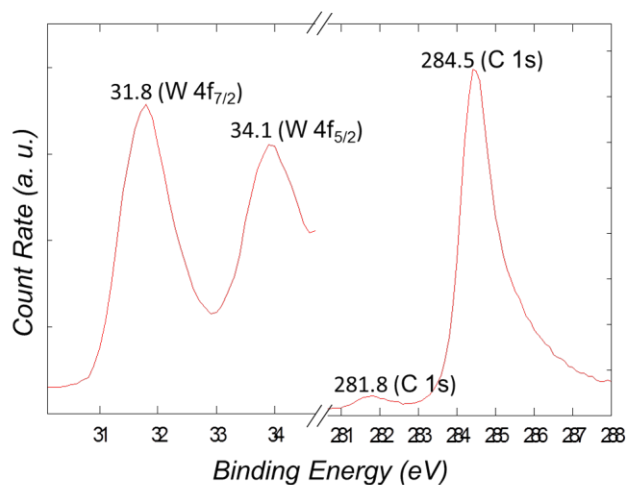
^fInstitute of Chemistry and Chemical Technology, National Academy of Sciences, Chui pr. 267, Bishkek, 720071, Kyrgyzstan

^gShock Wave and Condensed Matter Research Center, Kumamoto University, Kumamoto, 860-8555, Japan.

*E-mail: mashimo@gpo.kumamoto-u.ac.jp; Fax: +81 96 342 3293; Tel: +81 96 342 3295

Supplementary information includes XPS plots for WC_{1-x}@C and TiC@C core shell nanoparticles synthesized by pulsed plasma in liquid. CIF files for WC_{1-x} and TiC are available on the ICSD database (CSD-424342 C1 W1 and CSD-424343 C1 Ti1).

Supplementary Figure 1.



Supplementary Figure 2.

