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Yakai Zhao¹, Dong-Hyun Lee², Woo-Jin Kim², Moo-Young Seok³, Ju-Young Kim⁴,
Heung Nam Han⁵, Jin-Yoo Suh^{6,*}, Upadrasta Ramamurty⁷, Jae-il Jang^{2,*}

¹School of Materials Science and Engineering, Beijing Institute of Technology, Beijing 100081, China

²Division of Materials Science and Engineering, Hanyang University, Seoul 04763, Republic of Korea

³Max-Planck-Institut für Eisenforschung GmbH, Max-Planck-Straße 1, Düsseldorf 40237, Germany

⁴School of Materials Science and Engineering, Ulsan National Institute of Science and Technology,
Ulsan 44919, Republic of Korea

⁵Department of Materials Science and Engineering, Seoul National University, Seoul 08826, Republic
of Korea

⁶High Temperature Energy Materials Research Center, Korea Institute of Science and Technology,
Seoul 02792, Republic of Korea

⁷Department of Materials Engineering, Indian Institute of Science, Bangalore 560012, India

*Corresponding author: jijang@hanyang.ac.kr (J.-i. Jang); jinyoo@kist.re.kr (J.-Y. Suh)

ABSTRACT

The effect of pre-strain on the resistance to gaseous hydrogen embrittlement of CoCrFeMnNi high-entropy alloy (HEA) was investigated through mechanical testing and thermal desorption analysis. The results reveal that prior plastic deformation does not affect either the hydrogen contents or the excellent hydrogen embrittlement resistance of the HEA.

Keywords: High-entropy alloy; hydrogen embrittlement; pre-strain effect; thermal desorption spectroscopy.

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