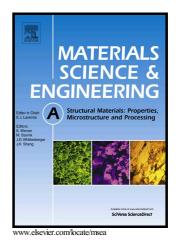
## Author's Accepted Manuscript

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#### ACCEPTED MANUSCRIPT

Ultra-high tensile strength nanocrystalline CoCrNi equi-atomic medium entropy alloy processed by high-pressure torsion

S. Praveen<sup>1,2</sup>, Jae Wung Bae<sup>1,2</sup>, Peyman Asghari-Rad<sup>1,2</sup>, Jeong Min Park<sup>1,2</sup>, Hyoung Seop Kim<sup>1,2\*</sup>

<sup>1</sup>Department of Material Science and Engineering, Pohang University of Science and Technology (POSTECH), Pohang 37673, Republic of Korea

<sup>2</sup>Center for High Entropy Alloys, Pohang University of Science and Technology (POSTECH), Pohang 37673, Republic of Korea

\*Corresponding author. Tel.: +82 54 279 2150. hskim@postech.ac.kr

### Abstract

A nanocrystalline CoCrNi alloy of  $\sim$ 50 nm grain size with the ultra-high ultimate tensile strength of  $\sim$ 2.2 GPa and fracture strain of  $\sim$ 9% was fabricated using high-pressure torsion. The presence of high density of nano-twins, stacking faults, dislocations, and nano-grains is attributed to the superior mechanical properties.

*Keywords*: high entropy alloys; nano-grains; nano-twins; high-pressure torsion; ultra-high tensile strength

#### 1. Introduction

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