

Supplementary material

Effect of Cu on performance of self-dispersing Ni-catalyst in production of carbon nanofibers from ethylene

Sofya D. Afonnikova¹, Yury I. Bauman¹, Vladimir O. Stoyanovskii¹, Mikhail N. Volochaev², Ilya V. Mishakov^{1,*}, Aleksey A. Vedyagin¹

¹ Boreskov Institute of Catalysis SB RAS, 5 Lavrentyev Ave., Novosibirsk 630090, Russia;
mishakov@catalysis.ru, afonnikova@catalysis.ru, bauman@catalysis.ru, stoyn@catalysis.ru,
vedyagin@catalysis.ru

² Kirensky Institute of Physics, Akademgorodok, 50/38, Krasnoyarsk 660036, Russia; volochaev91@mail.ru
* Correspondence: mishakov@catalysis.ru

Table S1. Particle size distribution data for Ni-Cu alloy. Diameter of the milling balls = 5 mm, activation time = 5 min.

Sample	Fraction of certain size particles, %		
	1 - 30 μm	30 - 100 μm	100 - 300 μm
Ni-Cu	25	71	4

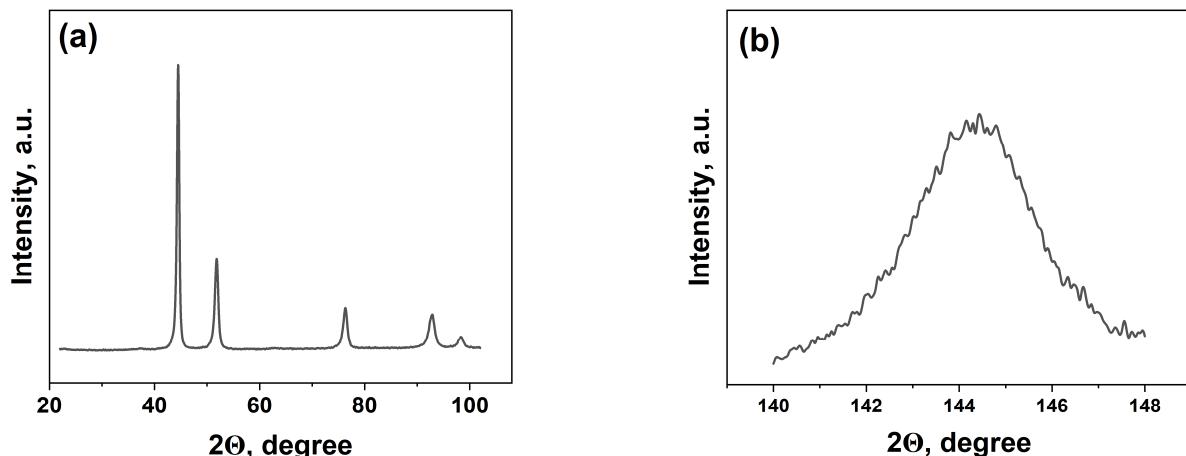


Figure S1. XRD patterns of the pristine Ni-Cu alloy in different regions of 2Θ : (a) – $2\Theta = 20\text{-}100^\circ$; (b) – $2\Theta = 140\text{-}148^\circ$.

Table S2. Phase compositions and the lattice parameters for the Ni and Ni-Cu samples. XRD data.

Sample	Lattice parameter, \AA	Phase composition
Ni	3.525	Fcc of Ni
Ni-Cu	3.531	Ni-Cu alloy