

Supplementary materials

Hydrogen transfer reaction in the presence of (Ni, Co)Mo-sulfide catalysts as an effective tool  
for hydrodechlorination: the role of the nature of lower alcohols

Alexander Romanov,\*a Nikolai Nesterova, Vera Pakharukovaa, Igor Prosvirina, Anna  
Salomatinaa, Oleg Klimova and Oleg Martyanova

\*Corresponding author, E-mail address: ChemOneLove@mail.ru

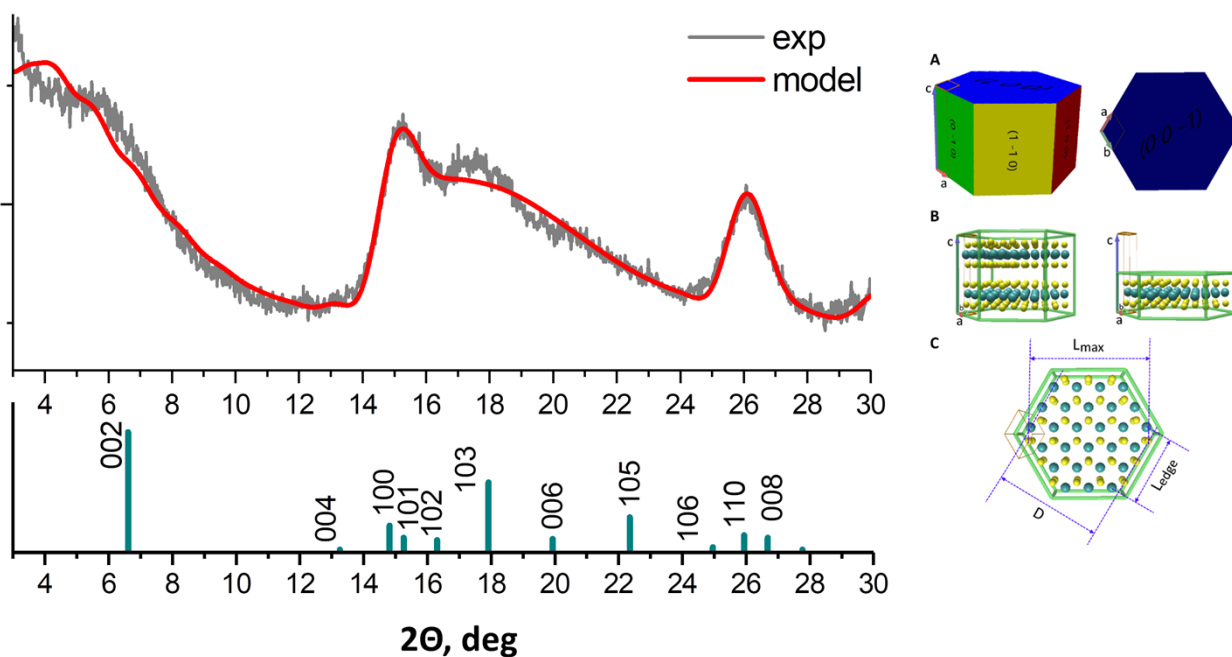


Figure S1. XRD data of the Mo<sub>13</sub>/Al<sub>2</sub>O<sub>3</sub> catalyst and the simulation curve of the sulfide system using Debye Function Analysis for single-layer MoS<sub>2</sub> crystallites ( $L_{max} = 3.5$  nm,  $D = 3.1$  nm).

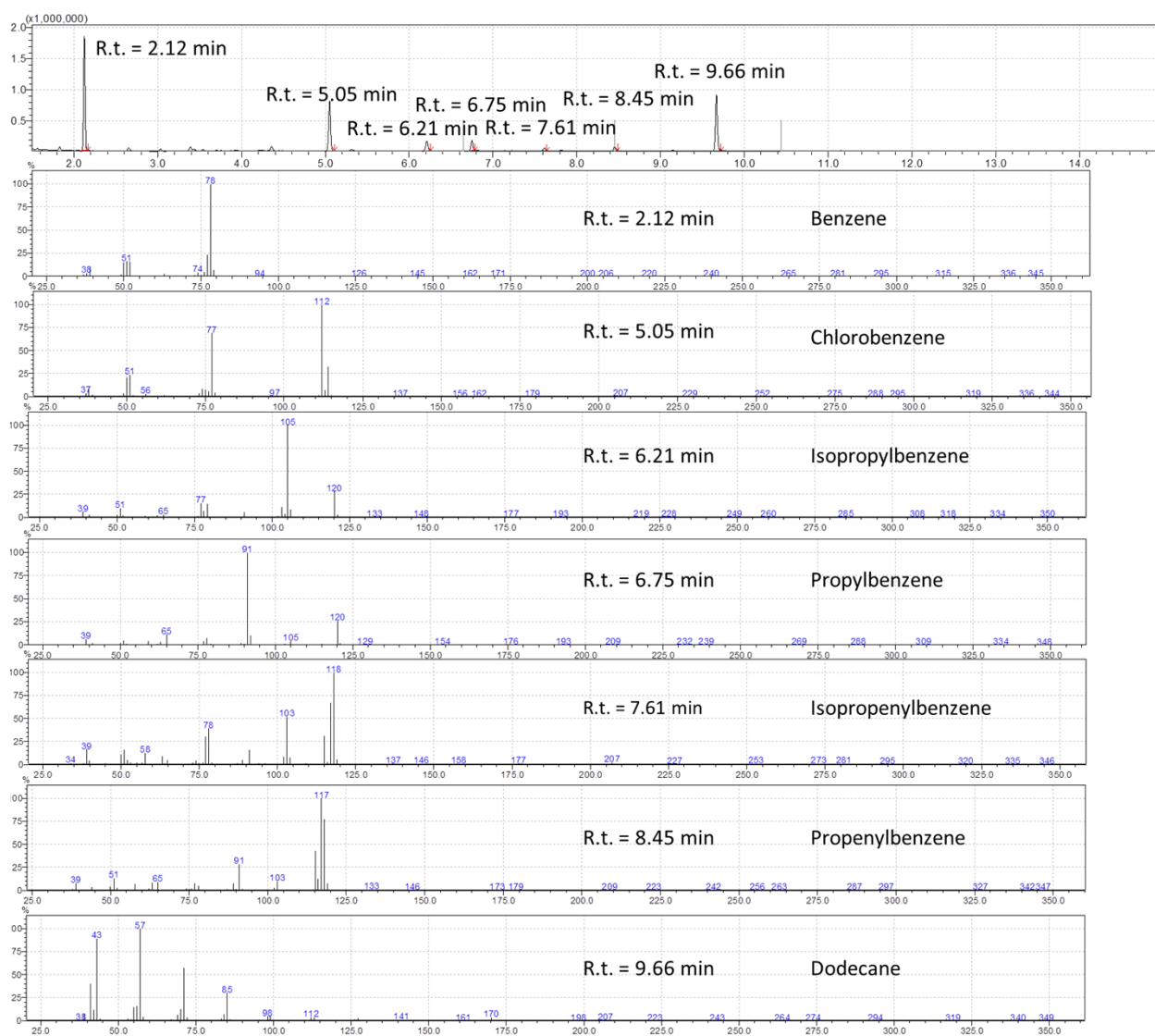


Figure S2. GCMS spectroscopy data for hydrodechlorination using Ni<sub>3</sub>Mo<sub>13</sub>/Al<sub>2</sub>O<sub>3</sub> catalyst in 2-PrOH medium after 40 minutes of the process.

Table S1. EDS mapping data for catalysts. Element mole ratio.

Catalysts	Mo/S	Ni(Co)/S
Ni <sub>3</sub> Mo <sub>13</sub> /Al <sub>2</sub> O <sub>3</sub>	0.19	0.08
Co <sub>3</sub> Mo <sub>13</sub> /Al <sub>2</sub> O <sub>3</sub>	0.22	0.1
Mo <sub>13</sub> /Al <sub>2</sub> O <sub>3</sub>	0.23	-