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Title: Enhanced adsorption of hexavalent chromium from aqueous solutions on facilely synthesized mesoporous iron-zirconium bimetal oxide

Author: Yi Wang Dongfang Liu Jianbo Lu Jian Huang



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1 **Enhanced adsorption of hexavalent chromium from aqueous solutions on facilely**
2 **synthesized mesoporous iron-zirconium bimetal oxide**

3 Yi Wang^a, Dongfang Liu^{a*}, Jianbo Lu^{b*}, Jian Huang^a

4 ^a Key Laboratory of Environmental Remediation and Pollution Control/Ministry of
5 Education Key Laboratory of Pollution Processes and Environmental Criteria, Nankai
6 University, Tianjin, 300071, China.

7 ^b School of Environmental and Municipal Engineering, Tianjin Chengjian University,
8 Tianjin 300384, China

9 ^{a*} Corresponding author: Tel.: +8613752092530, Fax: 86-22-23501117

10 Email address: dongfangl@yahoo.cn (Dongfang Liu)

11 Postal address: Dongfang Liu, Professor

12 Environmental Engineering Program

13 College of Environmental science and Engineering, Nankai University, 94 Weijin
14 Road, Tianjin, China, 300071

15 ^{b*} Corresponding author: Tel.: +8613752670427

16 Email address: jianbo98@126.com (Jianbo Lu)

17 Postal address: Jianbo Lu, Associate Professor

18 Environmental and Municipal Engineering

19 School of Environmental and Municipal Engineering, Tianjin Chengjian University,
20 26 Jinjing road, Tianjin, China, 300384

21

22 **Abstract:** Mesoporous iron-zirconium bimetal oxide (MIZO) which was templated
23 by cetyltrimethylammonium bromide (CTAB) was facilely synthesized through
24 co-precipitation for the first time. MIZO was applied in the adsorption of hexavalent
25 chromium [Cr(VI)] in aqueous solutions, with comparison to ordinary iron-zirconium
26 bimetal oxide (IZO). The properties of MIZO and IZO were characterized by N₂
27 adsorption-desorption isotherms, X-ray diffraction (XRD), scanning electron
28 microscope (SEM), Zetasizer analyzer and X-ray Photoelectron Spectroscopy (XPS).
29 In general, MIZO showed better performance than IZO within the Cr(VI) adsorption.

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