Accepted Manuscript

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PII: S0021-9797(15)30223-X

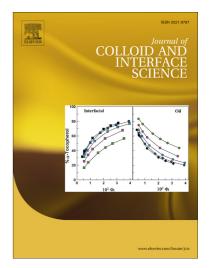
DOI: http://dx.doi.org/10.1016/j.jcis.2015.09.053

Reference: YJCIS 20763

To appear in: Journal of Colloid and Interface Science

Received Date: 4 July 2015

Revised Date: 16 September 2015 Accepted Date: 21 September 2015



Please cite this article as: Y. Liu, D. Luo, M.S. Ata, T. Zhang, C.J. Wallar, I. Zhitomirsky, Universal dispersing agent for electrophoretic deposition of inorganic materials with improved adsorption, triggered by chelating monomers, *Journal of Colloid and Interface Science* (2015), doi: http://dx.doi.org/10.1016/j.jcis.2015.09.053

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ACCEPTED MANUSCRIPT

Universal dispersing agent for electrophoretic deposition of inorganic materials with improved adsorption, triggered by chelating monomers

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Abstract

Poly[1-[4-(3-carboxy-4-hydroxyphenylazo)benzenesulfonamido]-1,2-ethanediyl, sodium salt] (PAZO) is a polymeric functional material with a number of unique physical properties, which attracted significant interest of different scientific communities. Films of PAZO were deposited by anodic electrophoretic deposition (EPD) under constant current and constant voltage conditions. The deposition kinetics was analyzed under different conditions and the deposition mechanism was discussed. New strategy was developed for the EPD of different inorganic materials and composites using PAZO as a dispersing, charging, binding and film forming agent. It was found that PAZO exhibits remarkable adsorption on various inorganic materials due to the

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