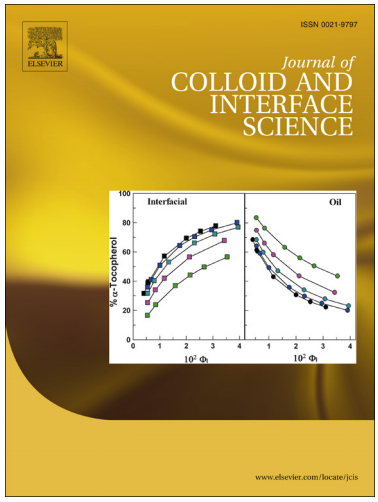


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# Universal dispersing agent for electrophoretic deposition of inorganic materials with improved adsorption, triggered by chelating monomers

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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