# Accepted Manuscript

Influence of Hydrophilic Groups and Metal-Ion Adsorption on Polymer-Chain Conformation of Amidoxime-Based Uranium Adsorbents

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## **ACCEPTED MANUSCRIPT**

## Influence of Hydrophilic Groups and Metal-Ion Adsorption on Polymer-Chain

#### **Conformation of Amidoxime-Based Uranium Adsorbents**

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#### **List of Abbreviations:**

PAO – Polyamidoxime

PAA – Poly-acrylic acid

PAN - Polyacrylonitrile

tBA - tert-butyl acrylate

d-PAO - Deuterated Polyamidoxime

d-PAO-b-PAA - Diblock copolymer with deuterated polyamidoxime and poly-acrylic acid

PAO-co-PAA - Random copolymer of amidoxime and acrylic acid

ORNL - Oak Ridge National Laboratory

NIST - National Institute of Standards and Technology

ATRP - Atom Transfer Radical Polymerization

DMSO - Dimethyl sulfoxide

CuBr – Copper (I) Bromide

DMF – Dimethylformamide

GPC – Gel permeation chromatography

PDI – Polydispersity Index

RI - Reflectivity Index

Mn - Number average Molecular Weight

Q – Momentum transfer

D<sub>2</sub>O – Heavy Water

NaHCO<sub>3</sub> – Sodium Bicarbonate

Na<sup>+</sup> - Sodium

NaCl - Sodium Chloride

SLD – Scattering Length Density

pD - Deuterium equivalent to pH

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