Biopolymer Research

Polyacrylamide in pure water and bio-imaging

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Abstract:

Octavinyl-polyhedral oligomeric silsesquioxane (OV-POSS) with amine-containing polyacrylamide (OV-POSS co-poly (acrylamide)) give a new fluorescent polymeric chemo sensor with fully water solubility. It shows better selectivity for Fe3+ in water solution over a wide detection range (pH=4-10). The incorporation of Fe3+ to OV-POSS co-poly (acrylamide) results in a significant with fluorescence enhancement in water solution over other metal ions. It was found that the system possesses low-cytotoxic, good permeability, high stability, and compatibility. Hence, it can be applied in bioimage successfully with bright blue fluorescent. Additionally, visible color change to the naked-eye from colorless to bright yellow can be observed directly when Fe3+ was added into chemo-sensor OV-POSS co-poly (acrylamide) compared with other metal ions.

Biography: Dr Nahla Elsadig from College of Material Science and Engineering & State Key Laboratory for Modification of Chemical Fibers and Polymer Materials, Donghua University, Shanghai 201620, China 2 School

Publications:

1. Mutations in TBC1D24, a gene associated with epilepsy, also cause nonsyndromic deafness
2. Exome sequencing of Pakistani consanguineous families identifies 30 novel candidate genes for recessive intellectual disability.
3. Association between Rare Variants in AP4E1, a Component of Intracellular Trafficking, and Persistent Stuttering.
4. miR-208a-3p Suppresses Osteoblast Differentiation and Inhibits Bone Formation by Targeting ACVR1.

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