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COMPOSITE ION EXCHANGE MATERIALS FOR WATER PROCESSING

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Insoluble resins offer several advantages in preparation processes, the chemical, photochemical and thermal mechanical properties of composites are largely affected by matrix properties. The known ion exchange composites are natural or synthetic mineral "zeolites", others are organic "ion exchange resins". The scientific study of the latter has undergone a colossal development; but remain to be promoted for their applications in the field of water treatment. The goal of the work is gaining access to a unique multifunctional process for fine and hyperfine separations. The composite material prepared from an inert support on which oligomers with a polystyrene sulfonated ion exchange capacity (PSS) are adsorbed and incorporated into its structure. In this way, the suspensoids and salts dissolved in the water will be filtered and separated. To characterize these composites, some tests were made like crystallinity rate, IR, thermal analysis, morphological structure and absorbent properties. The proposed new composites were of high capacity, wide applicability, wide versatility and low cost.

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