

SEPARATION OF POLLUENTS OF WATER BY USE OF EXTERNAL FIELDS IN FLOW THROUGH OF THE POROUS GRAPHENE OXIDE

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By polluting the environment for centuries, the humanity now perceives the necessity of the reverse process. As a result, water remediation should be rapid and efficient. A stream of water must be exposed to external magnetic fields that accelerate the separation process, improving the quality of the same. In this sense, water containing ions, molecules and microorganisms passed through a porous medium called graphene oxide membrane (GO) to generate pure and drinkable water. The behavior of the molecules separated from water were simulated through Molecular Dynamics (MD). The percentages of retention and permeability of the GO membrane were studied for different intensities of external magnetic forces applied to the flow. The analysis performed focused on obtaining better membrane efficiency.