

عنوان مقاله:

Approaches of Membrane Modification for Water Treatment

محل انتشار:

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نویسندگان:

Roham Ghanbari - School of Chemistry, College of Science, University of Tehran, Tehran, Iran

Neda Amanat - Department of Chemistry, Sapienza University of Rome, Rome, Italy

خلاصه مقاله:

The environment and how to protect it, is a crucial subject in the twenty-first century. Membrane field is one of the most reliable and cheapest methods, which is catching eyes these days. Although membranes are efficient and easy to handle, the vulnerability against fouling agents and poor stability are drawbacks. Fortunately, a diverse range of methods developed over the past few decades for membrane modification. Each modification method can offer some benefits that can enhance the membrane's overall performance. On the other hand, almost all of them also have some drawbacks. Therefore, knowing the aspect of each modification method can lead researchers to choose the best one based on the desired application. Generally speaking, membrane modification can culminate in better water permeation, higher rejection rate, more thermal and mechanical stability, higher surface hydrophilicity, and more extended durability. Therefore, a study about membrane modification methods and their advantages and disadvantages were needed. Herein, a short but thorough review is brought to indicate how membranes could modify with different methods, and their fortes and drawbacks are briefly discussed.

.In addition, new studies were brought in to elucidate how these methods are gaining real applications

کلمات کلیدی:

Water treatment, Biopolymer, Green chemistry, Membrane, Nanomaterials

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