

Antifouling, Fouling Release and Antimicrobial Materials for Surface Modification of Reverse Osmosis and Nanofiltration Membranes

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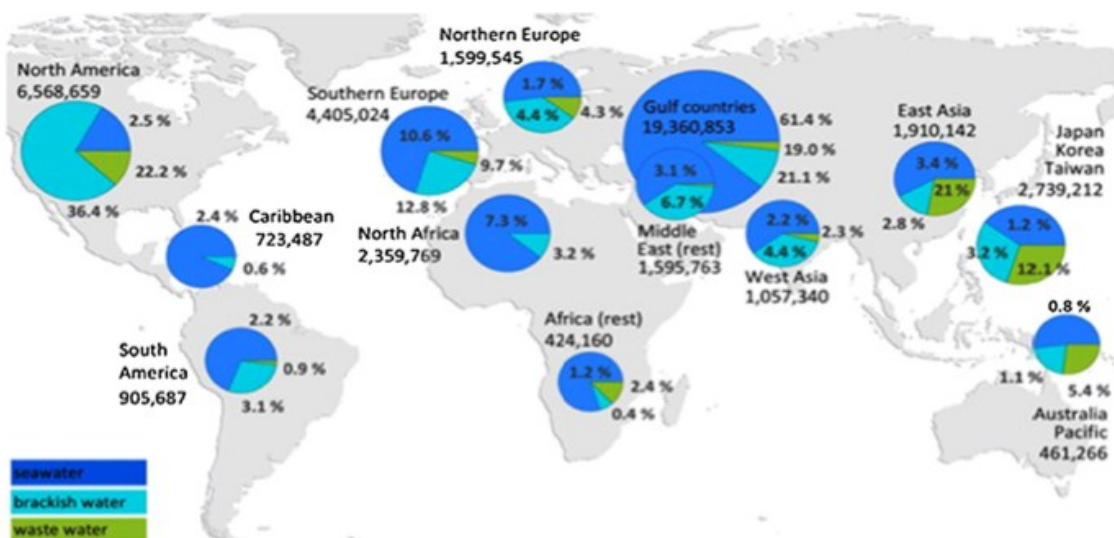
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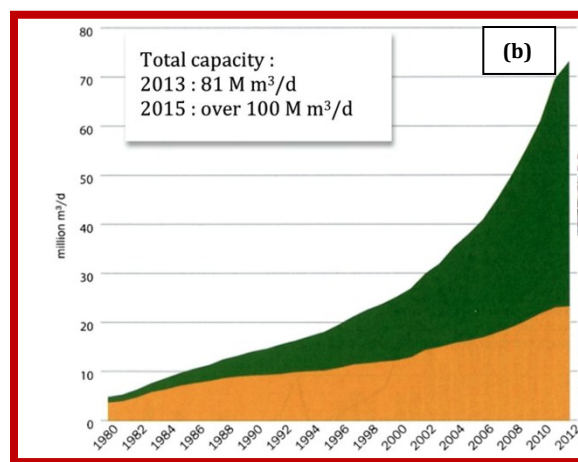
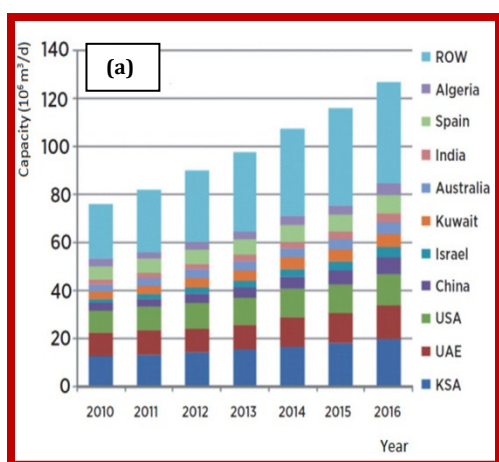
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Supporting Information

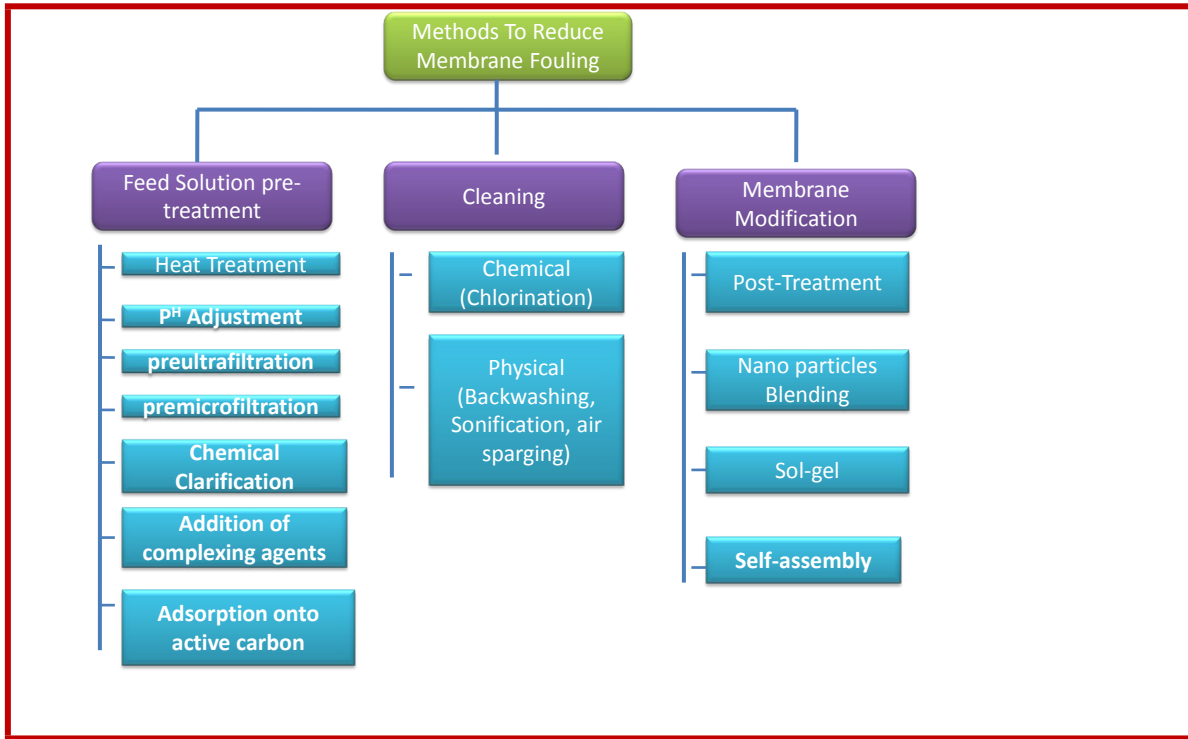
S1: Worldwide desalination capacities along with source water¹



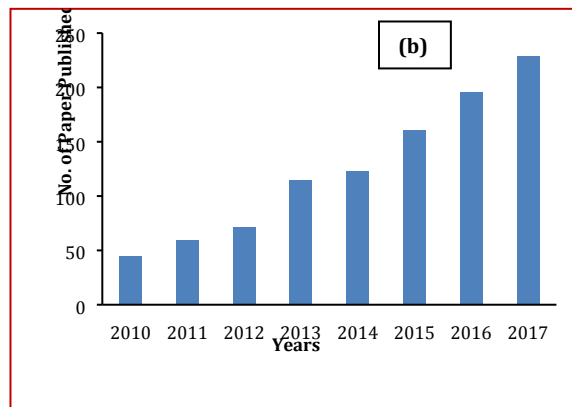
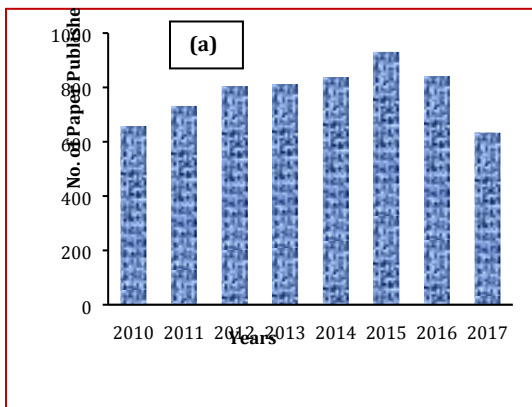
S2: Global installed desalination capacity during (a) 2010-2016² and (b) 1980-2012³



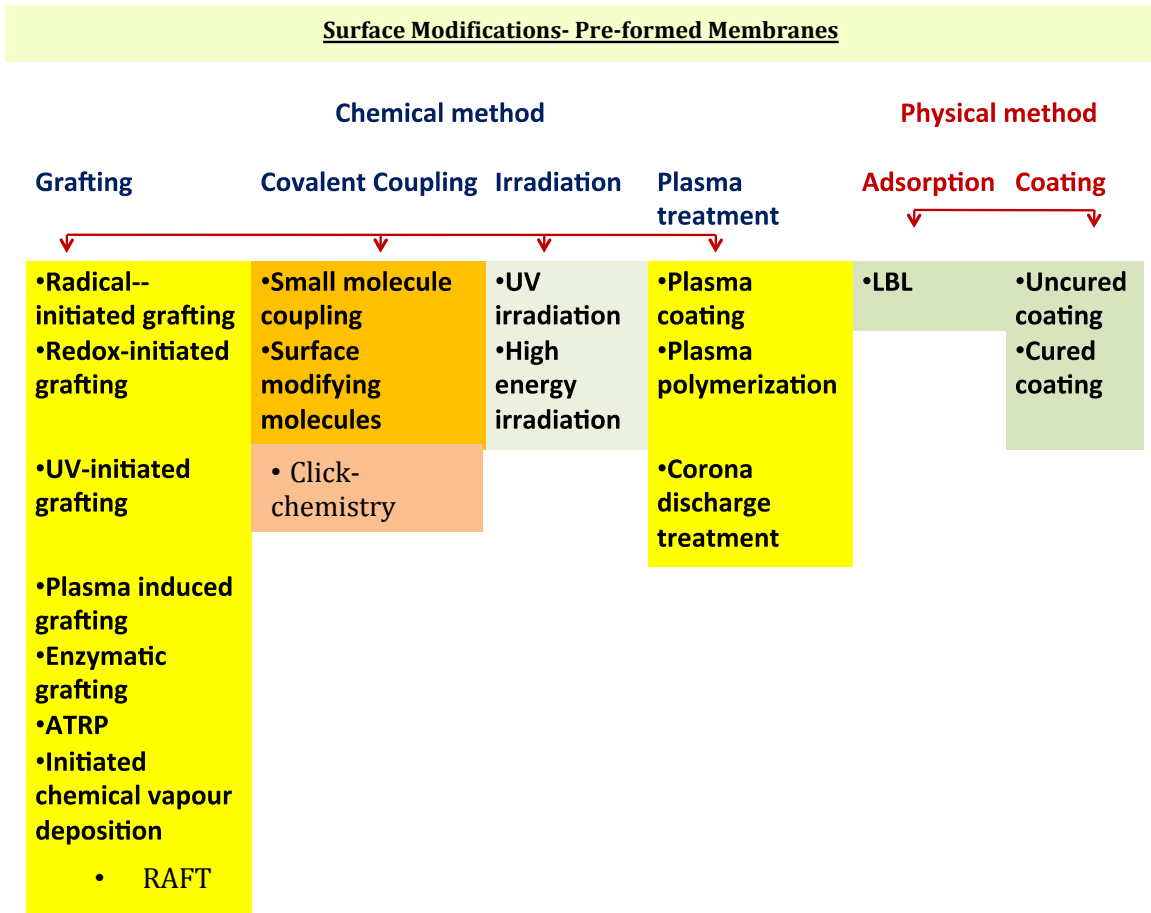
S3: Various approaches adopted for the minimization of RO/NF membrane fouling^{4,5}



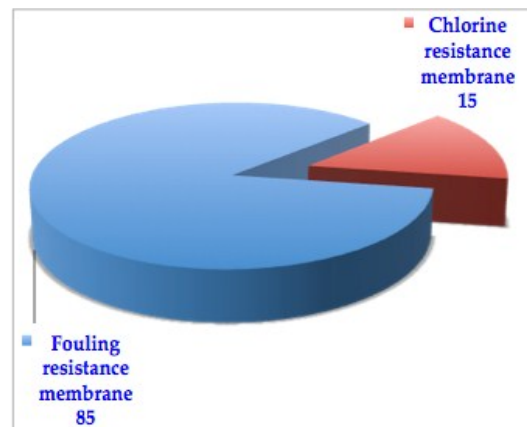
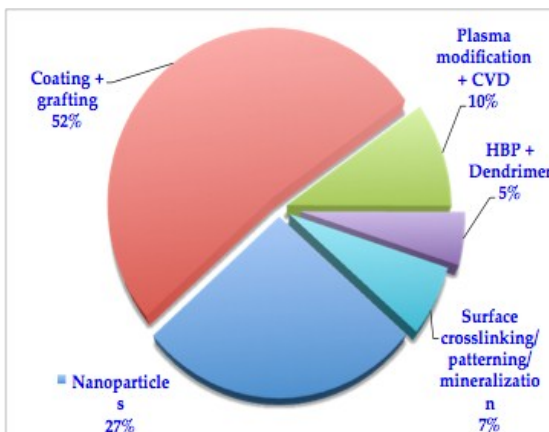
S4 : Number of papers published in the last 7-8 years in the domain of (a) membrane surface modification, key words: TFC membrane surface modification + RO or nanofiltration [Source: Scopus), and (b) Pre-formed membrane surface modification, Keywords: Surface Modification+TFC membrane [Source: Elsevier +ACS]



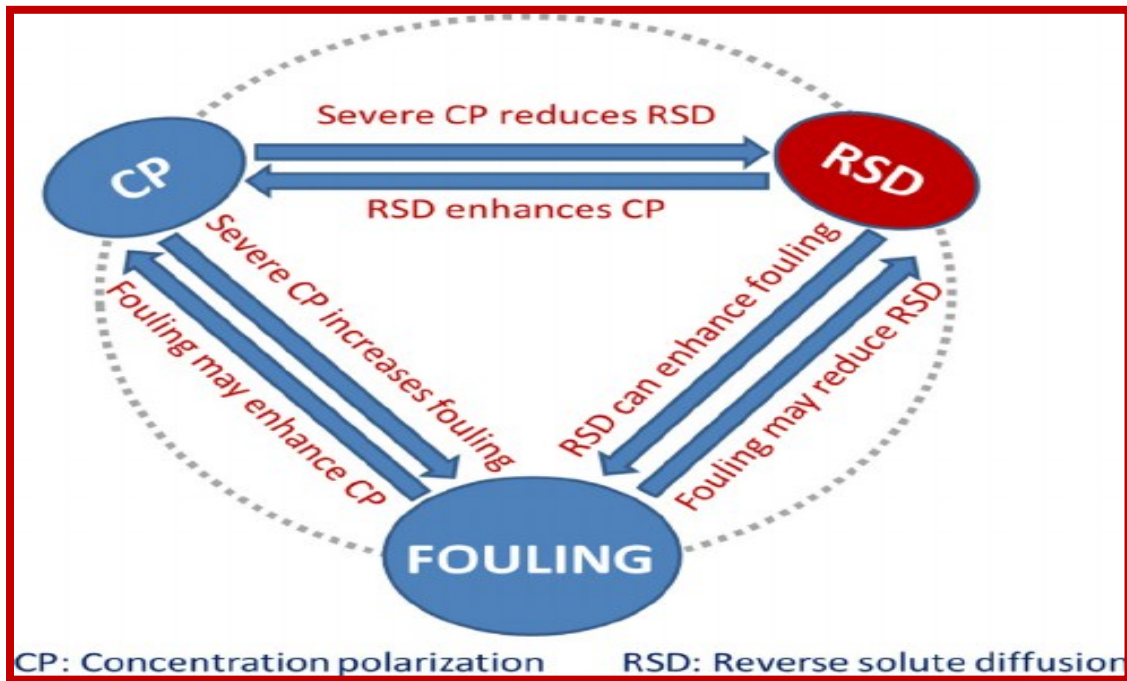
S5: Represents the typical surface modification techniques reported so far in the literature



Commercial membrane modification scenario



S6 : The intrinsic interrelationship among membrane fouling, concentration polarization (CP) and reverse solute diffusion (RSD) in ODMP⁶



References

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2. K. Zotalis, E. G. Dialynas, N. Mamassis and A. N. Angelakis, *Water*, 2014, 6, 1134-11150
3. J. Saqib and I. H. Aljundi, *Journal of Water Process Engineering*, 2016, 11, 68-87
4. J. H. Jhaveri and Z. V. P. Murthy, *Desalination*, 2016, 379, 137-154
5. <http://slideplayer.com/slide/4427966/>
6. Q. She, R. Wang, A. G.Fane, C. Y.Tang, *Journal of Membrane Science*, 2016, 499, 201-233