Abstract

The membrane processes are modern technologies that have been involved with major revolutions in all industry branches such as petroleum, gas, pharmacy, biotechnology, water & wastewater, food processing and medicine. These processes in comparison with conventional methods led to quality improvement, increasing yield product, novel products and decreasing energy consumption. Sugar industry is one of the most energy-intensive processes in the food and chemical industries; therefore, it has been extensively investigated by membrane scientists in the last decade. In this paper, potentials of some membrane processes such as reverse osmosis, nanofiltration and ultrafiltration have been reviewed for different applications in sugar industries including purification, clarification, concentration and decolorization and the results of published papers have been discussed.

Key words: Sugar processing, Membrane processes, Raw juice, Decolorization, Molasses, Concentration, Purification.