

conclusions A salt gradient solar pond was constructed at Al- Fadelia area. The maximum improvement reached was 78.72% in Sep. nights. The maximum improvement reached was 33.79%. The results indicate that for areas where salt gradient solar pond can be constructed, establishing a distillation system with low expenses and high productivity is possible and reasonable. The experiments were conducted in Baghdad city weathers at September and October 2009. If the system continues the solar pond will store more and more energy and higher temperatures at heat exchanger will be achieved.