The experiments reported in this paper represent the first stage of an evaluation concerning the ability to create a flowing stratified layer and to control its performance. The paper does not claim to provide all the information needed to prove the feasibility of the ASP. It was mentioned several times in the paper, which was also concluded with a comment, that the study should be extended to double-diffusive systems in order to provide more information relevant to the ASP performance.

Considering the differences between single and double-diffusive system as mentioned by Prof. Nielsen; they do not avoid the operation of the CSP and did not prevent us from carrying out recently the first successful set of double-diffusive experiments, which are now being analyzed. We found that the behavior of the double-diffusive system depends on various parameters, and the description of different immiscible streams is not so conclusive as stated by Prof. Nielsen. This issue is still being studied by us, and it is beyond the scope of the present paper.

Flow velocity considered in our 1989 paper was taken as a preliminary assumption of the ASP operation. At that time we also considered operating our experimental setup in other flow conditions. Only later was it decided to operate it as described in the present paper. At any rate, the slower flow velocity does not stem from any problem associated with the performance of the ASP subject to field conditions. The slower flow velocity used in the experimental setup provided better injection and withdrawal conditions as well as smaller side wall effects in our experimental setup, which is much shorter and narrower than a solar pond. The flow conditions described in the present paper created a comparatively long region of uniform flow without the entrance and outlet influence.

Section (b) of Prof. Nielsen's discussion also refers to the performance of solar ponds and is not concerned with the present paper. However, in the ASP procedure boundary conditions of the system are controlled by several injection and withdrawal ports. Therefore the ASP procedure allows much more flexibility in the operation of the ASP than the CSP, as was considered in our 1989 paper.

Sections (c) and (d) again refer to differences between the solar pond operation and the experiments reported in the present paper. As far as the numerical computations are concerned we checked the computer code, used in our 1989 paper, for the computation of the solar transmission factor in the water body. The formula which we used was the one proposed by Rabl and Nielsen in their 1975 paper. Unfortunately, we found a disagreement in the code where \( \cos(r) \) (r is the angle of incidence) divides the exponentials instead of the coefficients of the exponentials. We could not recall at which level of our calculations that error was introduced, since in the final version of our paper we did not describe such a formulation. If that error was really introduced into our calculations then the 47 percent transmission is high. However, this error is very minor for small angle of incidence where most applications take place.

As correctly implied by Prof. Nielsen, the initial temperature profile and the ability to preserve the temperature and salinity profiles in the solar pond are major factors determining the solar pond efficiency. With regard to this issue we expect the advantage of the ASP in which the multiport injection and withdrawal procedures should control and provide adequate temperature and salinity profiles leading to high efficiency of the solar pond.

It should be noted that in different studies concerning solar ponds performance different assumptions and definitions of the efficiency have been introduced. Such differences may in some cases lead to completely different conclusions regarding the solar pond performance.

In the conclusions of our reply we have to admit that our motivation in studying the feasibility of the ASP stems from our belief that the future of solar pond usage very much depends on the ability to improve its efficiency and performance. It seems that the ASP represents a step in that direction. The present paper eventually refers to some general thermohydrodynamic aspects. It does not claim to contribute much to the understanding and the possible improvement of solar ponds. It was submitted to the JOURNAL OF FLUIDS ENGINEERING and not to a more specialized journal in order to reach a broader audience.