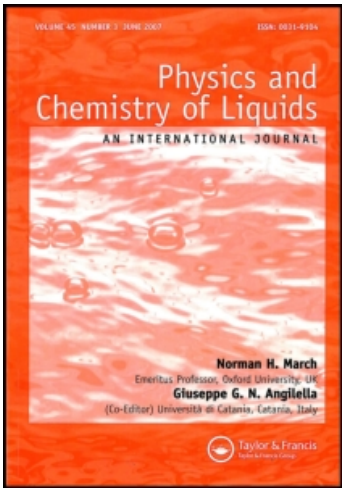

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We make the following remarks in response to Professor Schurr's comments:

1 The statement that "a chemical reaction can be taken as affecting only one of the non-propagating modes" makes specific reference to the *non-propagating modes*. We fail to see how one could interpret this statement as referring also to the *propagating* modes! Consequently, we don't see why Professor Schurr should be upset because we don't refer to his comments on the effect of chemical reactions on the propagating modes. Of course we are aware that the chemical reaction affects the propagating modes and that this has been discussed by many authors, first in ultrasonics (see e.g. reference 9 of our article) and more recently in light scattering (see e.g. reference 3 of our article). This is precisely why we make only passing reference (Eq. 11 and the last sentence of the paper) to the effects of chemical reactions on the propagating modes.

2 We turn now to Professor Schurr's comment that we "are not the first to be aware of the problem of coupling between mass diffusion and thermal diffusion in the Rayleigh peak". I don't think we ever said we were first! The fact remains that we do provide a solution for the effect on the unshifted line of the

coupling between entropy and concentration fluctuations due to a chemical reaction. In this connection it should be pointed out that we have been able to effect a solution without, at any stage, neglecting any of the effects of entropy fluctuations on the equation of motion of the reacting species. On the other hand, Schurr's treatment neglects the effect of both temperature and pressure fluctuations on the chemical potential (see Eq. 12 of Schurr's paper) and thus this treatment omits the coupling, in part at least, of entropy fluctuations to the equation of motion of the chemical species, (Eq. 11 of Schurr's paper).