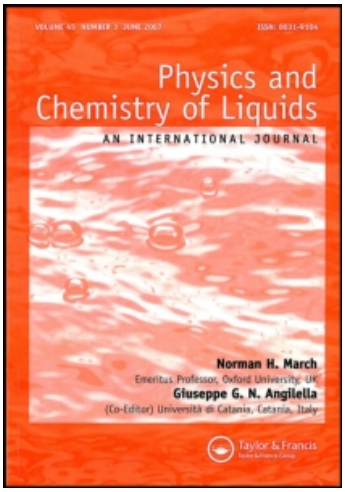

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Reply to comment on "liquid metal transport properties"

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Reply to comment on "LIQUID METAL TRANSPORT PROPERTIES"

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The method[1,2] used to determine energy parameters with which to correlate liquid metal transport properties yields relative and not absolute values for these parameters. The choice of a reference substance and its value of ϵ/k is arbitrary. Professor Collings' point is well taken that one might as well use an up-to-date value of ϵ/k for the energy parameter of the reference substance. Nevertheless, one should not expect close agreement values of energy parameters determined from liquid metal viscosity and diffusivity data and values determined from neutron scattering experiments. Preston *et al.*[2] found some disagreement between ϵ/k values obtained from liquid transport data and values obtained from gas viscosity data for the rare gases. The asumption of the validity of the law of corresponding states for liquid metals is certainly more questionable than its applicability to the rare gases.

There is considerable variation in reported values of potential well depth for liquid metals determined by analysis of neutron diffraction and other scattering data. It is therefore preferable, in calculating values of diffusivity and viscosity, to use estimates of ϵ/k based on melting points.

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