

ABSTRACT GUIDELINES

Abstracts should be prepared in 12 point Times New Roman (TNR) font using the following guidelines.

Title: Bold font; lower case; first letter of each major word upper case

Authors: Normal font; asterisk* against name of presenting author; affiliation indicated (if applicable) by italic superscript letter^{a,b,...}

Affiliations: Italic font

Abstract text: Normal font; less than one A4 page (total); single spaced; justified; references (if any) should be kept to a minimum and should be

- Indicated in the abstract text by superscript Arabic numbers^{1,2,...}
- Collected at the end of the abstract in numerical order
- Given in ACS journal style

An example of the required abstract layout is given on the following page.

[EXAMPLE ABSTRACT]
[NB References optional; given here only as illustration]

Enthalpies and Entropies of Transfer of Ions from Water to Aqueous-Organic Mixtures

Glenn Hefter,^{a*} Yizhak Marcus^b and W. Earle Waghorne^c

^a *Chemistry Department, Murdoch University, Murdoch, WA 6150, Australia;*

^b*Department of Inorganic & Analytical Chemistry, Hebrew University, Jerusalem, 91904, Israel;* ^c *Chemistry Department, University College, Belfield, Dublin 4, Ireland*

Data for the enthalpies and entropies of transfer of electrolytes from water to aqueous-organic mixtures have been collected systematically from the literature, for the first time.¹ Extensive data sets have been established for a number of co-solvents including MeOH, EtOH, t-BuOH, MeCN and DMSO, with more limited values for many other aqueous-organic mixtures. These data were divided, wherever possible, into their component ionic contributions using the tetraphenylarsonium (or phosphonium) tetraphenylborate extrathermodynamic assumption.² The single ion enthalpies and entropies so obtained often exhibit very complex behaviour as the co-solvent concentration changes. There are marked differences between aqueous mixtures with protic and dipolar aprotic co-solvents, and between cations and anions. Some aqueous-organic mixtures show clear evidence of solvent microheterogeneity. In others there is marked compensation between the enthalpies and entropies or between cations and anions. The behaviour of classes of ions and groups of solvents is discussed in terms of the specific interactions occurring.

¹ Hefter, G. T.; Marcus, Y.; Waghorne, W. E. *Chem. Rev.*, **2002**, *102*, 2773.

² Marcus, Y. *Ion Solvation*; Wiley: Chichester, 1985.