

Ionic conductance of acetonitrile/isobutyronitrile-based electrolyte solutions

Table 1.7.9 Ionic conductances of mixed solvent-based electrolyte solutions

Solvent ¹	Salt	k or Λ or Λ_0^2 [$\Omega^{-1}\text{cm}^{-1}$ or $\Omega^{-1}\text{mol}^{-1}\text{cm}^2$]	T [K]	c^3 [mol · dm ⁻³]	Ref.
Acetonitrile/isobutyronitrile 20.4/79.6 % wt.	Bu ₄ NBPh ₄	<i>81.33</i>	25 °C	14.682 10 ⁻⁴	[60Bro]
		<i>79.53</i>	25 °C	20.670 10 ⁻⁴	[60Bro]
		<i>78.86</i>	25 °C	23.532 10 ⁻⁴	[60Bro]
		<i>77.28</i>	25 °C	30.889 10 ⁻⁴	[60Bro]
		<i>75.88</i>	25 °C	38.610 10 ⁻⁴	[60Bro]
		<i>92.77</i>	25 °C		[60Bro]

¹Composition in units as stated

²Conductances at infinite dilution Λ_0 are printed in italics without mentioning a concentration, units are $\Omega^{-1}\text{mol}^{-1}\text{cm}^2$. Molar conductances are given in italics with a concentration value, units are $\Omega^{-1}\text{mol}^{-1}\text{cm}^2$. Simple conductivities are given stating the concentration, units are $\Omega^{-1}\text{cm}^{-1}$

³Concentrations are molar (units: mol · dm⁻³), molal concentrations are given in italics (units: mol · kg⁻¹), other concentrations as specified

Symbols and Abbreviations

Short form	Full form
κ , Λ	ionic conductivity
T	temperature
Λ_0	ionic conductance at infinite dilution
c	molar concentration

References

[60Bro] Brown, A.M., Fuoss, R.M.: J. Phys. Chem. **64** (1960) 1341.