

Rotational Diffusion of Nondipolar and Charged Solutes in Alkyl Substituted Imidazolium Triflimides: Effect of C2 Methylation on Solute Rotation

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Supporting Information

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TABLE 1: Reorientation Times of DMDPP and R110 in [BMIM][Tf₂N] as a Function of Temperature Along with Solvent Viscosity

T / K	$\eta / \text{mPa s}$	τ_r / ns	
		DMDPP	R110
298	50.2	2.76	6.55
303	41.1	2.20	5.39
308	33.8	1.69	4.55
313	28.5	1.50	3.71
318	24.1	1.11	3.04
323	20.7	0.93	2.56
328	17.9	0.79	2.14
338	13.7	0.58	1.58
348	10.9	0.46	1.19

**TABLE 2: Reorientation Times of DMDPP and R110 in [BMMIM][Tf₂N]
as a Function of Temperature Along with Solvent Viscosity**

T / K	$\eta / \text{mPa s}$	τ_r / ns	
		DMDPP	R110
298	134	6.93	8.78
303	104	5.28	7.67
308	81.4	4.27	6.80
313	65.0	2.99	5.89
318	52.6	2.36	5.00
323	43.4	1.95	4.38
328	35.8	1.64	3.66
338	25.5	1.15	2.67
348	19.0	0.86	1.95