

TABLE I. Diffusion coefficients.
0.1 N $\text{Hg}^{203}(\text{NO}_3)_2$ —0.1 N $\text{Hg}(\text{NO}_3)_2$ in 0.2 N HNO_3 .^a

Temp. °K	Pressure atmos	Effective cell length cm	Observed $D \times 10^5$ cm^2/sec
273	20	0.548	0.54
273	250	0.548	0.33
273	600	0.548	0.41
273	1200	0.548	0.48
273	2000	0.617	0.60
273	3000	0.617	0.75
273	4250	0.617	0.40
273	5000	0.676	0.57
298	20	0.548	0.86
298	50	0.548	1.24
298	250	0.548	2.05
298	600	0.548	1.26
298	1000	0.548	0.92
298	2000	0.617	1.02
298	3000	0.617	1.17
298	4000	0.617	0.70
298	5000	0.617	1.16
298	7000	0.676	1.45
298	9000	0.676	0.79
323	20	0.548	1.17
323	250	0.548	2.13
323	600	0.548	1.32
323	1200	0.548	1.17
323	2000	0.548	1.54
323	3000	0.617	1.87
323	4000	0.617	0.90
323	5500	0.617	1.85
323	7000	0.676	1.95
323	8500	0.724	1.29
348	20	0.548	2.56
348	250	0.548	3.28
348	600	0.548	5.17
348	1000	0.548	3.56
348	2000	0.617	3.87
348	3000	0.617	1.81
348	4000	0.617	2.34
348	5500	0.617	2.98
348	7000	0.676	2.54

^a Maximum deviation in reproducibility 10 percent. Average deviation 5 percent.TABLE II. Diffusion coefficients. 0.1 N $\text{Ca}^{45}\text{Cl}_2$ —0.1 N CaCl_2 .^a

Temp. °K	Pressure atmos	Effective cell length cm	Observed $D \times 10^5$ cm^2/sec
298	100	0.583	1.08
298	250	0.583	0.83
298	600	0.583	0.82
298	1000	0.583	0.94
298	2000	0.646	0.84
298	3000	0.646	1.16
298	4250	0.646	0.49
298	5500	0.698	0.44
298	7000	0.698	0.33
298	9000	0.761	0.49
323	100	0.583	1.25
323	250	0.583	1.37
323	600	0.583	1.14
323	1000	0.583	1.22
323	2000	0.646	1.50
323	3000	0.646	1.41
323	4250	0.646	1.82
323	5500	0.646	1.48
323	7700	0.761	0.83

^a Maximum deviation in reproducibility 10 percent. Average deviation 5 percent.TABLE III. Diffusion coefficients.
0.1 N $\text{Ca}^{45}(\text{NO}_3)_2$ —0.1 N $\text{Ca}(\text{NO}_3)_2$.^a

Temp. °K	Pressure atmos	Effective cell length cm	Observed $D \times 10^5$ cm^2/sec
298	100	0.583	0.72
298	250	0.583	1.49
298	250	0.583	1.60
298	600	0.583	1.32
298	600	0.583	1.50
298	1000	0.583	1.43
298	2000	0.646	1.13
298	3000	0.646	1.17
298	4000	0.646	1.47
298	5000	0.698	0.75
298	7100	0.698	1.04
298	9000	0.698	1.24

^a Maximum deviation in reproducibility 10 percent. Average deviation 5 percent.

MERCURIC NITRATE

The mercuric nitrate data are the best and most complete obtained in any one aqueous system because they include a larger temperature range and cover the

TABLE IV. Diffusion coefficients. 0.1 N $\text{Ti}^{203}\text{NO}_3$ —0.1 N TiNO_3 .^a

Temp. °K	Pressure atmos	Effective cell length cm	Observed $D \times 10^5$ cm^2/sec
298	20	0.583	2.07
298	250	0.583	1.35
298	600	0.583	1.80
298	600	0.583	1.69
298	1000	0.583	0.95
298	2000	0.646	2.00
298	3000	0.646	1.67
298	4000	0.646	1.03
298	5700	0.761	0.88
298	7000	0.698	1.48
298	9000	0.761	1.73

^a Maximum deviation in reproducibility 10 percent. Average deviation 5 percent.

entire pressure range used in this experimental work. The similarity among the curves is evident from Figs. 1 and 6. There is a minimum in each diffusion coefficient curve at approximately 4000 atmospheres, and this

TABLE V. Diffusion coefficients.
0.01 M $\text{Hg}^{203}\text{Cl}_2$ —0.01 M HgCl_2 in $n\text{-C}_4\text{H}_9\text{OH}$.^a

Temp. °K	Pressure atmos	Effective cell length cm	Observed $D \times 10^5$ cm^2/sec
298	200	0.548	1.61
298	1000	0.548	0.68
298	2000	0.548	0.40
298	3500	0.646	0.18
298	5000	0.646	0.084
298	7000	0.698	0.041
323	200	0.548	3.75
323	1000	0.548	2.29
323	2000	0.646	1.26
323	3500	0.646	0.70
323	5000	0.646	0.35
323	8500	0.761	0.088

^a Maximum deviation in reproducibility 10 percent. Average deviation 5 percent.