Pure & Appl. Chem., Vol.51, pp.1913-1980. 0033-4545/79/0901-1913 $02.00/0
Pergamon Press Ltd. 1979. Printed in Great Britain.

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

ANALYTICAL CHEMISTRY DIVISION

COMMISSION ON ELECTROANALYTICAL CHEMISTRY*

SELECTIVITY COEFFICIENTS OF ION-SELECTIVE ELECTRODES

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Abstract - In the present paper, after a short introduction including the definition of the potentiometric selectivity coefficient and an outline of the methods used for its determination, selectivity coefficient data are collected in form of a table. In addition to the actual numerical values, the type of electrode and method and conditions used in the determination of the selectivity coefficient data are given in the table.

THEORETICAL CONSIDERATIONS

Ion-selective electrodes are characterized by parameters such as the slope of the potential response, selectivity coefficient, detection limit in unbuffered solutions, exchange current, response time etc. Among them, one of the most important is the selectivity coefficient of the electrode, on the basis of which the potential application of an electrode in a given system can be predicted.

The selectivity coefficient is defined by the Nikolsky equation as follows:

$$E = E^{o} + \frac{2,303\ RT}{z_i F} \log /a_i + \sum_{j=1}^{n} K_{ij}^{Pot}\, a_j^{\frac{z_i}{z_j}} /$$

where E is the potential of the electrode
E^{o} is the standard potential of the electrode
z_i and z_j are the charges on ions i and j, respectively /i refers to the primary ion, for which the electrode is designed and j to the interfering ion/
a_i and a_j are the activities of ions i and j, respectively, and
K_{ij}^{Pot} is the selectivity coefficient of the electrode in the presence of ion j.

In general, the selectivity coefficient K_{ij}^{Pot} can be expressed as follows:

$$K_{ij}^{Pot} = K_{ij} \cdot f/u/$$

where K_{ij} is the equilibrium constant of the reaction determining the electrode response in the presence of ions i and j /e.g. precipitate - exchange reaction, complex - forming reaction or extraction/
$f/u/$ is the function of the mobilities of ions i and j within the electrode membrane; it is equal to unity if only surface equilibrium reaction is involved.

Consequently, for precipitate-based electrodes /also referred to as crystal, single crystal or solid-state electrodes/, when only surface exchange reactions take place,

$$K_{ij}^{Pot} = K_{ij}$$

that is, K_{ij}^{Pot} is equal to the equilibrium constant of the exchange reaction between the electrode membrane material and the ion j in solution, i.e. to the equilibrium constant of the precipitate-exchange reaction. This theoretically can be expressed as the ratio of the solubility products of the electrode material /S_i/ and that of the precipitate formed in the exchange reaction /S_j/, if monovalent ions form the precipitates:

$$K_{ij}^{Pot} = \frac{S_i}{S_j}$$

This offers a possibility for the theoretical calculation of selectivity coefficients for precipitate-based electrodes. However, in other cases there is no way for the theoretical calculation of the selectivity coefficient since it involves ion mobilities within the membrane which can not be determined exactly.

MEASURING TECHNIQUES

Selectivity coefficients can be measured by different methods which fall into two main groups, namely
1. Separate - solution techniques
2. Mixed-solution techniques

1. In using the separate-solution techniques, the potential of the electrode studied is measured with the same potentiometric cell in solutions containing the primary ion and the interfering ion separately.
From the electrode potentials measured,

$$E_i = E_o + \frac{2,303RT}{z_iF} \log a_i$$

$$E_j = E_o + \frac{2,303RT}{z_jF} \log K_{ij}^{Pot} a_j$$

K_{ij}^{Pot} can be calculated either with the so called equal activity or with the equal potential method.
In both cases it is tacitly assumed that the electrode standard potentials are equal in the presence of ion i as well as in that of ion j and also that the response is Nernstian for both ions.
According to the method of equal activities, the solutions of ion i and j are prepared at the same concentration and the potentiometric measurements are carried out. From the measured potential values /E_i and E_j/ the selectivity coefficient can be calculated. For cations of the same valency the following equation holds:

$$\frac{E_j - E_i}{2,303RT} = \log K_{ij}^{Pot}$$

At the method of equal potentials electrode potential measurements are made in two series of solutions containing the ion i and j separately. From the results two calibration graphs are constructed. The selectivity coefficient is then calculated from the activities of ions i and j corresponding to equal potentials as follows:

$$K_{ij}^{Pot} = \frac{a_i}{a_j^{z_i/z_j}}$$

The separate-solution technique for determining selectivity coefficients is simple and allows a number of K_{ij}^{Pot} values to be measured on the basis of

different activities and potentials.
However, the result may be different depending on the activity and potential values used for the calculation and furtheron, they may be erroneous since the assumptions mentioned are not always true.
Furthermore, in practical applications the primary and interfering ions are present simultaneously and the electrode may behave quite differently under the simultaneous effect of more ions than when the ions are present alone. Thus, the conditions of separate solution measurements do not resemble those prevailing in the actual measurements with ion-selective electrodes.

2. In the mixed-solution techniques, the electrode potentials are measured in solutions containing both the primery and the interfering ions.
The method can be realized in two ways, by potentiometric direct or indirect /titration/ method.
In the direct method a series of solutions is prepared in which either the concentration of the ion i is kept at a constant low value and that of the ion j is varied, or the concentration of the ion j is kept at a constant high value and that of the ion i is varied. Another approach of the latter is based on exponential dilution and is suitable for continuous measurement. The method is realized as follows: A container of constant volume contains a solution in which both the primary and the interfering ion are present in a relatively high concentration. This solution is diluted continuously at a constant flow rate with a solution of the ion j having the same concentration as that in the container, and a potential vs. time curve is recorded. /As a result, a curve consisting of two linear parts is obtained./ By rescaling the time axis a potential vs. - log a_i plot is obtained.
Applying the mixed-solution method, the electrode potential is plotted against the varied ion concentration. The plot is generally composed of two straight lines.

If the selectivity coefficient of the electrode studied differs very much from unity /it is less than 10^{-6}/, then the potentiometric indirect, titration method should be employed for its determination.
As titrant, a soluble salt of the counter ion of the precipitate built into the membrane is used. For example, if the chloride ion selectivity of a silver iodide-based iodide ion-selective electrode is intended to be determined, then a solution containing chloride and iodide in the same concentration /e.g. 10^{-2}M/ is titrated with silver nitrate solution and a titration curve is recorded using an iodide ion-selective and a reference electrode. The titration curve usually has two break points, the first corresponding to the titration of iodide and the second to that of the chloride. The concentration of the iodide ion is calculated for the coprecipitation point considering the initial concentration of the iodide, the potential jump and the Nernstian response of the electrode, while the concentration of the chloride is equal to that originally present.
Accordingly, this can be considered as a variety of the mixed-solution method where the concentration of the primary ion is varied while that of the interfering ion is constant. It should also be emphasized that this method yields only an approximate value for K_{ij}^{Pot}.

CALCULATION OF THE SELECTIVITY COEFFICIENT

At the mixed-solution methods the selectivity coefficient is calculated from the activities of the ions at the break point /B/ as follows:

$$K_{ij}^{Pot} = \frac{/a_i/_B^{z_j}}{/a_j/_B^{z_i}}$$

It may be mentioned here that if, at the mixed-solution method, the concentration of the ion j is constant and that of the ion i is varied, then the second straight line /that parallel to the abscissa/ does not always show up. Since in the meaning of the selectivity coefficient it is involved that the effect of both ions at the break point is the same, the break point is located at a distance of $\frac{18}{z_i}$ mV from the extrapolation of the upper straight line. This offers possibilities for determining the selectivity coefficient

even if the second straight line can not be observed on the plot.
In conclusion it must be pointed out that the selectivity coefficient data depend to a great extent on the method used for the determination and also on the concentration level of the primary as well as the interfering ion, and on the nature of the electrode membrane. Best agreement between selectivity coefficient data determined by different methods under different conditions is expected and found in the case of precipitate-based electrodes.

The following survey on selectivity data contains the electrode type, the method and conditions of measurement if available and the reference.
The electrodes are listed in the following order:

simple anions
simple cations
composite and organic ions and molecules

In the Table i always refers to the ion or molecule measured while j to the interfering ones, and K_{ij} means the potentiometric selectivity coefficient.

SUGGESTED LITERATURE

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Table Selectivity coefficient data

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
F^-	LaF_3 single crystal	OH^-	10^{-1}		pH 4,5	90
		Cl^-				
		NO_3^-	$<10^{-3}$			
		HCO_3^-				
		SO_4^{2-}				
F^-	LaF_3 single crystal	OH^-	10^{-1}			17
		I^-	10^{-4}			
		Br^-	10^{-4}			
		Cl^-	10^{-4}			
F^-	LaF_3 single crystal	Cl^-				103
		Br^-				
		I^-	$<10^{-3}$			
		SO_4^{2-}				
		HCO_3^-				
		NO_3^-				
		PO_4^{3-}				
Cl^-	AgCl precipitate based heterogeneous /silicone rubber=SR/	CrO_4^{2-}	$5,2.10^{-5}$	calculated from solubility-data		102
		CO_3^{2-}	$6,3.10^{-5}$			
		PO_4^{3-}	$1,3.10^{-4}$			
		AsO_4^{3-}	$3,3.10^{-4}$			
		CrO_4^{2-}	$4,5.10^{-5}$	titration method		
		CO_3^{2-}	$4,6.10^{-5}$			
		PO_4^{3-}	$0,5.10^{-4}$			
		AsO_4^{3-}	$2,0.10^{-4}$			
Cl^-	AgCl precipitate based heterogeneous /SR/	I^-	$/3,6.10^2/$	separate solution	$c_i=c_j=10^{-1}M$	107
		Br^-	$/1,5.10/$			
Cl^-	AgCl precipitate, homogeneous	SO_4^{2-}	10^{-6}			62
		PO_4^{3-}	$4,8.10^{-5}$			
		CO_3^{2-}	$4,6.10^{-5}$			
		$C_2O_4^{2-}$	$4,5.10^{-5}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		AsO_4^{3-}	$2,0.10^{-4}$			
		OH^-	$1,2.10^{-2}$			
		SO_3^{2-}	$2,0.10^{-1}$			
		NH_3	/8/			
		Br^-	/$3,0.10^2$/			
		I^-	/$2,0.10^6$/			
Cl^-	liquid	I^-	/17/		p Cl 1-5	69
	ion exchanger	NO_3^-	/4,2/		pH 2-11	
	/Orion/	Br^-	/1,6/			
		HCO_3^-	0,19			
		SO_4^{2-}	0,14			
		F^-	0,1			
Cl^-	liquid ion	Br^-	/2,79-1,72/	separate	$c_i = c_j$	132
	exchanger	NO_3^-	/4,09-1,68/	solution	$10^{-1}-10^{-4}M$	
	/Orion/	I^-	/17,1-4,4/	method		
		Br^-	/3,42-2,58/	mixed	$a_i=7,5.10^{-2}$ -	
		NO_3^-	/4,38-2,62/	solution	- $1,9.10^{-4}M$	
				method		
		I^-	/23,9-6,0/		$a_j=2.10^{-2}$ -	
					- $1,9.10^{-4}M$	
Cl^-	liquid	ClO_4^-	/32/			92
	ion	I^-	/17/			
	exchanger	NO_3^-	/4,2/			
	/Orion/	Br^-	/1,6/			
		OH^-	/1,0/			
		OAc^-	0,32			
		HCO_3^-	0,19			
		SO_4^{2-}	0,14			
		F^-	0,1			
Cl^-	AgCl preci-	CN^-	/5.10^6/			92
	pitate	I^-	/2.10^6/			
	/Orion/	Br^-	/3.10^2/			
		$S_2O_3^{2-}$	/10^2/			
		NH_3	/8/			

Ion or molecule	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		OH^-	$1,2.10^{-2}$			
Cl^-	AgCl precipitate	Br^-	/2,1/	separate solution	$c_i=c_j=10^{-3}M$	51
		Br^-	$/3,3.10^{2}/$		$c_i=c_j=10^{-1}M$	
		Br^-	/2,7/	mixed solution	$c = 10^{-3}$ M	
		Br^-	$/3,1.10^{2}/$		$c = 10^{-1}$ M	
		Br^-	/1,02/	calculated from diff. layer model		
		Br^-	$/3,4.10^{2}/$	calculated from solubility products		
Cl^-	liquid ion exchanger	HCO_3^-	5.10^{-2}	mixed solution	I=0,1-1,0	141
	microelectrode /Corning 47315	propionate	5.10^{-1}		I=0,1	
			7.10^{-1}		I=1,0	
	exchanger/	isethionate	2.10^{-1}		I=0,1-1,0	
Cl^-	AgCl precipitate	I^-	/14/	separate solution	$c_i=c_j=10^{-3}M$	65
			/1,4/	mixed solution	stationary, $c_I=10^{-4}M$ const. c_{Cl} varied	
		I^-	/5/	mixed solution	stirred	
Cl^-	AgCl homogeneous, heterogeneous;	S^{2-}	$/\sim 10^{15}/$			17
		I^-	$/\sim 10^{6}/$			
		Br^-	$/\sim 10^{2}/$			
	$AgCl/Ag_2S$	SCN^-	$/10^{2}/$			
	homogeneous	CN^-	$/10^{2}/$			
		OH^-	10^{-2}			
		F^-	10^{-4}			

Ion or molecule	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
Cl^-	ion exchanger in solvent /tetra-n-heptyl ammonium iodide in n--decanol/	ClO_4^-	/30/			17
		NO_3^-	/4/			
		F^-	0,1			
Cl^-	liquid ion exchanger in solvent /cetyl-trimethyl ammonium hydroxide in octanol/	Br^-	/2,6/	mixed solution		40
		I^-	/14/			
		NO_3^-	/3,2/			
		SO_4^{2-}	9.10^{-2}			
		PO_4^{3-}	10^{-3}			
		$H_2PO_4^-$	10^{-3}			
		NO_2^-	/1,42/			
		OAc^-	0,74			
		CO_3^{2-}	0,24			
		F^-	8.10^{-2}			
Cl^-	coated wire /Aliquat 336 S/	NO_3^-	/2/	mixed solution	$c_i=10^{-3}$ - 4.10^{-3}M	58
		SO_4^{2-}	0,12			
		Br^-	/1,2/			
Br^-	AgBr precipitate based heterogeneous /SR/	Cl^-	$1,8.10^{-3}$	mixed solution method, titration	$c_{Br}= 10^{-6}$ - 10^{-4}M $c_{Cl}=10^{-2}$ - 10^{-4}M	100,135
Br^-	AgBr precipitate based heterogeneous /SR/	Cl^-	$0,8.10^{-2}$	separate solution method	$c_{Br}=c_{Cl}=$ 10^{-1}M	105
Br^-	AgBr precipitate based heterogeneous /SR/	Cl^-	$4,9.10^{-3}$	calculated from solubility products		23
Br^-	AgBr homogeneous or heterogeneous, AgBr/	S^{2-}	/$\sim10^{13}$/			17
		I^-	/$\sim10^{4}$/			
		Cl^-	10^{-2}			

Ion or molecule	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
	Ag_2S homogeneous	SCN^-	0,5			
		CN^-	/1/			
		OH^-	10^{-5}			
		F^-	10^{-6}			
Br^-	AgBr precipitate based heterogeneous /SR/	Cl^-	$2,0.10^{-3}$	calculated from solubility products		102
		SCN^-	/1,5/			
		CrO_4^{2-}	$2,5.10^{-7}$			
		CO_3^{2-}	$3,1.10^{-7}$			
		PO_4^{3-}	$6,3.10^{-7}$			
		AsO_4^{3-}	$1,6.10^{-6}$			
		Cl^-	$1,8.10^{-3}$	mixed solution method		
		SCN^-	0,2			
		Cl^-	$6,0.10^{-3}$	mixed solution, titration		
		CrO_4^{2-}	$1,1.10^{-7}$			
		CO_3^{2-}	$1,0.10^{-7}$			
		PO_4^{3-}	$3,1.10^{-7}$			
		AsO_4^{3-}	$1,2.10^{-6}$			
Br^-	AgBr precipitate /Orion/	CN^-	$/1,2.10^{4}/$			92
		I^-	$/5.10^{3}/$			
		NH_3	0,5			
		Cl^-	$2,5.10^{-3}$			
		OH^-	3.10^{-5}			
Br^-	liquid ion exchanger in solvent /cetyl-trimethyl ammonium hydroxide in octanol/	Cl^-	0,25	mixed solution method		40
		I^-	/4,45/			
		NO_3^-	/1,11/			
		SO_4^{2-}	$2,5.10^{-2}$			
		PO_4^{3-}	6.10^{-4}			
		$H_2PO_4^-$	6.10^{-4}			
		NO_2^-	0,74			
		OAc^-	0,16			
		CO_3^{2-}	8.10^{-2}			
		F^-	$4,5.10^{-3}$			
Br^-	Ag_2S/AgBr precipitate	Cl^-	10^{-3}	mixed solution	$c_i=10^{-3}M$ /const/	125
		I^-	$/10^{4}/$			

Ion or molecule	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		SCN^-	10^{-1}	mixed solution method	c_j varied	
		S^{2-}	$/>10^{10}/$			
	HgS/AgBr precipitate	Cl^-	10^{-3}			
		I^-	$/10^4/$			
		SCN^-	10^{-1}			
		S^{2-}	$/>10^{10}/$			
	HgS/Hg_2Br_2 precipitate	Cl^-	10^{-4}			
		I^-	$/10^6/$			
		SCN^-	10^{-2}			
		S^{2-}	$/>10^{10}/$			
Br^-	precipitate Hg_2Br_2/HgS	Cl^-	$9,1.10^{-3}$	separate solution	$c_i=c_j$	137
		SCN^-	$7,1.10^{-2}$			
		I^-	$/2,3.10^3/$			
		SO_3^{2-}	/1/			
Br^-	AgBr precipitate based	SCN^-	0,34	separate solution	$c_i=c_j=10^{-3}M$	51
			0,37		$c_i=c_j=10^{-1}M$	
Br^-		SCN^-	0,62	mixed solution	$c=10^{-3}M$	51
			0,65		$c=10^{-1}M$	
			0,48	calculated from solubility products		
			0,35	calculated with diff. layer dodel		
		Cl^-	$5,6.10^{-3}$	separate solution	$c_{i,j}=10^{-3}M$	
			$2,9.10^{-3}$		$c_{i,j}=10^{-1}M$	
			$3,0.10^{-3}$	calculated from solubility products		
			$3,0.10^{-3}$	calculated with diff.		

Ion or molecule	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
				layer model		
Br^-	coated wire /Aliquat 336S/	Cl^-	0,19	mixed solution	$c_i = 10^{-3}$ - $4.10^{-3}M$	58
		NO_3^-	/2/			
		SO_4^{2-}	0,02			
		I^-	/14,5/			
I^-	AgI precipitate based heterogeneous /SR/	Br^-	2.10^{-4}	titration	$c_I=10^{-6}$ - - 10^{-5} $c_{Br}=5.10^{-2}$- $5.10^{-3}M$	135
I^-	AgI precipitate based heterogeneous /SR/	Br^-	$4,8.10^{-3}$	separate solution	$c_i=c_j=10^{-1}M$	106
		$/Fe/CN/_6^{4-}$	$3,0.10^{-4}$			
		Cl^-	$5,9.10^{-6}$			
		PO_4^{3-}	$2,1.10^{-6}$			
		ClO_4^-	$6,2.10^{-7}$			
		SO_4^{2-}	$3,1.10^{-8}$			
I^-	AgI precipitate based heterogeneous /thermoplastic matrix/	NO_3^-	5.10^{-6}		$c_I=10^{-1}M$	74
		NO_2^-	5.10^{-6}			
		SO_4^{2-}	10^{-5}			
		SO_3^{2-}	$3,5.10^{-4}$			
		PO_4^{3-}	$3,5.10^{-4}$			
		ClO_4^-	4.10^{-6}			
		F^-	$2,5.10^{-6}$			
		Cl^-	10^{-5}			
		Br^-	10^{-4}			
I^-	AgI precipitate based heterogeneous /SR/	Br^-	$1,3.10^{-4}$	calculated from solubility products		23
I^-	AgI precipitate /Radelkis/	Cl^-	10^{-6}	mixed solution		136
		Br^-	10^{-4}			
		CN^-	1			
		NH_4^+	10^{-6}			
		SO_4^{2-}	10^{-6}			

Ion or molecule	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
I^-	AgI precipitate based heterogeneous /SR/	Cl^-	$9,6.10^{-7}$	calculated from solubility products		102
		Br^-	$2,0.10^{-4}$			
		SCN^-	$3,0.10^{-4}$			
		OH^-	$1,0.10^{-8}$			
		CrO_4^{2-}	$5,0.10^{-11}$			
		PO_4^{3-}	$1,2.10^{-10}$			
		AsO_4^{3-}	$3,2.10^{-10}$			
		$/Fe/CN/_6/^{4-}$	$2,4.10^{-6}$			
		Br^-	$2,1.10^{-4}$	mixed soln.		
		Cl^-	$3,7.10^{-7}$	titration		
		Br^-	$1,8.10^{-4}$			
		SCN^-	$2,4.10^{-4}$			
		OH^-	$0,9.10^{-8}$			
		CrO_4^{2-}	$6,6.10^{-11}$			
		PO_4^{3-}	$0,2.10^{-10}$			
		AsO_4^{3-}	$2,6.10^{-10}$			
I^-	AgI precipitate /Crytur/	Br^-	10^{-4}			142
		Cl^-	4.10^{-6}			
		F^-	5.10^{-6}			
		CN^-	1			
		SCN^-	10^{-3}			
		$/Fe/CN/_6/^{4-}$	$1,2.10^{-4}$			
		$S_2O_3^{2-}$	$1,2.10^{-5}$			
		SO_4^{2-}	4.10^{-6}			
		ClO_4^-	5.10^{-6}			
		PO_4^{3-}	5.10^{-6}			
		NO_3^-	10^{-5}			
		HCO_3^-	2.10^{-6}			
I^-	AgI homogeneous or heterogeneous, AgI/Ag_2S homogeneous	S^{2-}	$/\sim 10^{10}/$			17
		Br^-	10^{-4}			
		Cl^-	10^{-6}			
		SCN^-	10^{-4}			
		CN^-	/1/			
		OH^-	10^{-7}			

Ion or molecule	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		F^-	10^{-8}			
I^-	Ag_2S/AgI precipitate	Cl^-	10^{-7}	mixed solution	pH 2,5	125
		Br^-	10^{-4}		$c_i=10^{-3}M$	
		SCN^-	10^{-4}		c_j varied	
		S^{2-}	$/>10^{10}/$			
I^-	HgS/AgI precipitate	Cl^-	10^{-6}			
		Br^-	10^{-4}			
		SCN^-	10^{-4}			
		S^{2-}	$/>10^{10}/$			
	HgS/Hg_2I_2 precipitate	Cl^-	$< 10^{-10}$			
		Br^-	10^{-6}			
		SCN^-	10^{-9}			
		S^{2-}	$/>10^{10}/$			
I^-	liquid ion exchanger in solvent /cetyl-trimethyl ammonium hydroxide in octanol/	Cl^-	0,08	mixed solution		40
		Br^-	0,23			
		NO_3^-	0,3			
		SO_4^{2-}	9.10^{-3}			
		PO_4^{3-}	10^{-4}			
		$H_2PO_4^-$	10^{-4}			
		NO_2^-	0,2			
		OAc^-	3.10^{-2}			
		CO_3^{2-}	10^{-2}			
		F^-	2.10^{-3}			
I^-	coated wire /Aliquat 336 S/	Cl^-	$4,8.10^{-3}$	mixed solution	$c_i=10^{-3} - 10^{-4}M$	135
		NO_3^-	$1,1.10^{-1}$			
		SO_4^{2-}	10^{-3}			
		Br^-	$5,6.10^{-2}$			
I^-	solid ion exchanger in agar /Dowex 2-X8/	Cl^-	5.10^{-5}	separate and mixed solution method		89
		Br^-	5.10^{-5}			
		NO_3^-	5.10^{-5}			
		OAc^-	5.10^{-5}			
		SO_4^{2-}	0,2 - 1			
		SCN^-	0,35-1			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
I^-	/I_2 in solvent/ liquid	ClO_4^-	$< 10^{-5}$		$c_I = 10^{-3}M$ $c_{ClO_4^-} 10^{-1}-10^{-2}M$	118
		NO_3^-	$< 10^{-5}$		$c_I=10^{-3}-10^{-4}M$ $c_{NO_3}=10^{-2}M$	
		NO_3^-	8.10^{-5}		$c_I= 10^{-3}M$ $c_{NO_3}=10^{-1}M$	
			4.10^{-5}		$c_I= 10^{-4}M$ $c_{NO_3}=10^{-1}M$	
		Cl^-	4.10^{-3}		$c_I = 10^{-3}M$ $c_{Cl}=10^{-2}M$	
			$< 10^{-5}$		$c_I = 10^{-3} - 10^{-4}M$ $c_{Cl}= 10^{-1}M$	
			8.10^{-4}		$c_I = 10^{-4}M$ $c_{Cl}= 10^{-2}M$	
		Br^-	10^{-5}		$c_I = 10^{-3}M$ $c_{Br}= 10^{-2}M$	
			4.10^{-3}		$c_I= 10^{-3}M$ $c_{Br}= 10^{-1}M$	
CN^-	AgI precipitate /Radelkis/	Cl^-	$10^{-5}- 10^{-6}$	mixed solution		136,102
		Br^-	$10^{-3}- 10^{-4}$			
		I^-	/1/			
		NH_4^+	$10^{-5}- 10^{-6}$			
		SO_4^{2-}	$10^{-5}- 10^{-6}$			
CN^-	AgI precipitate /Crytur/	F^-	$\sim 1,55.10^{-9}$			1
		Cl^-	$\sim 4,37.10^{-7}$			
		Br^-	$\sim 2,46.10^{-4}$			
		I^-	~ 1			
CN^-	AgI/Ag_2S	I^-	/1,3/ /average/	separate and mixed solution	flow conditions $c_I= 10^{-3} - 5.10^{-5}M$ $c_{CN}=10^{-2} - 10^{-4}M$	31

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
CN^-	AgI precipitate/Orion/	I^-	/1,73/	separate solution	$c=10^{-2}-10^{-5}M$	11
			/1,63/	mixed solution	$c_I=10^{-3}M$, $c_{CN}=10^{-3}$ - $2.10^{-4}M$	
CN^-	AgI precipitate /Orion/	I^-	/1,6/	calculated by diffusion barrier model		27
CN^-	AgI/Ag_2S ceramic	OH^-	10^{-4}	mixed solution		72
		SO_3^{2-}	5.10^{-3}			
		Cl^-	$3,2.10^{-2}$			
		$/Fe/CN/_6/^{4-}$	$1,3.10^{-5}$			
		SCN^-	$1,3.10^{-3}$			
		Br^-	$3,2.10^{-3}$			
		$S_2O_3^{2-}$	$3,2.10^{-2}$			
		I^-	/8/			
		S^{2-}	/6,3/			
CN^-	AgI precipitate/Orion/	Cl^-	10^{-6}			92
		I^-	/10/			
		Br^-	2.10^{-3}			
CN^-	Ag_2S/AgI precipitate	Cl^-	10^{-8}	mixed solution	$c_i=10^{-3}$, c_j varied, pH 11,5	125
		Br^-	10^{-6}			
		I^-	/1/			
		SCN^-	10^{-6}			
		S^{2-}	$/>10^{10}/$			
	HgS/AgI precipitate	Cl^-	10^{-8}			
		Br^-	10^{-6}			
		I^-	/1/			
		SCN^-	10^{-6}			
		S^{2-}	$/>10^{10}/$			
	HgS/Hg_2I_2 precipitate	Cl^-	$<10^{-10}$			
		Br^-	10^{-10}			
		I^-	/1/			
		SCN^-	10^{-10}			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		S^{2-}	$/>10^{10}/$			
SCN^-	$AgSCN/Ag_2S$	S^{2-}	$/\sim 10^{13}/$			17
	homogeneous	I^-	$/\sim 10^{4}/$			
		Br^-	/2/			
		Cl^-	10^{-4}			
		CN^-	10^{-2}			
		OH^-	10^{-4}			
		F^-	10^{-5}			
SCN^-	$Ag_2S/AgSCN$	Cl^-	10^{-2}		pH 2,5	125
		Br^-	/1/		$c_i=10^{-3}M$	
		I^-	$/>10^{10}/$		c_j varied	
		S^{2-}	$/>10^{10}/$			
	HgS/AgSCN	Cl^-	10^{-2}			
		Br^-	/10/			
		I^-	$/>10^{10}/$			
		S^{2-}	$/>10^{10}/$			
	$HgS+Hg_2/SCN/_2$	Cl^-	10^{-2}			
		Br^-	$/10^{2}/$			
		I^-	$/10^{9}/$			
		S^{2-}	$/>10^{10}/$			
SCN^-	coated wire	Cl^-	$<10^{-3}$	mixed	$c_i=10^{-3}$	58
	/Aliquat	NO_3^-	$4,6.10^{-2}$	solution	$- 4.10^{-3}$	
	336 S/	SO_4^{2-}	10^{-3}		c_j varied	
		I^-	$3,4.10^{-1}$			
SCN^-	precipitate in	Cl^-	$/2,8-3/.10^{-3}$	mixed	$c_i=10^{-5}-$	
	thermoplastic			solution	$10^{-4}M$	
	matrix/AgSCN				$c_j=10^{-1}M$	
	in polythene/	Br^-	/1-1,4/		$c_i=10^{-5}-10^{-3}M$	
					$c_j=10^{-3}M$	
		I^-	$/1,7-4,7/.10^{2}$		$c_i=10^{-5}-10^{-3}M$	
					$c_j=10^{-5}M$	
SCN^-	ion-association	ClO_4^-	/12/			54
	extraction sys-	IO_4^-	/6,7/			
	tem /crystal	I^-	0,34			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
	violet in	ClO_3^-	5.10^{-2}			
	nitrobenzene/	NO_3^-	3.10^{-2}			
		Br^-	6.10^{-3}			
		BrO_3^-	2.10^{-3}			
		Cl^-				
		$H_2PO_4^-$	10^{-4}			
		OAc^-				
		SO_4^{2-}				
S^{2-}	Ag_2S precipi-	I^-	$1,3.10^{-15}$	titration	$c_i=10^{-2}M$	101
	tate based	Br^-	$5,0.10^{-23}$		$c_j=10^{-1}M$	
	heterogeneous	Cl^-	10^{-27}			
	/SR/	OH^-	$4,0.10^{-32}$			
S^{2-}	Ag_2S precipi-	$S_2O_3^{2-}$		separate		70
	tate based	SO_4^{2-}		and		
	homogeneous	SO_3^{2-}		mixed		
	/Orion/	CO_3^{2-}		solution		
		HCO_3^-				
		I^-	$\leq 10^{-3}$			
		Cl^-			1M NaOH	
		Br^-			$c_i=10^{-1}-10^{-2}M$	
		F^-			$c_j=10^{-1}-10^{-2}M$	
		CN^-				
		Hg^{2+}	8.10^{-2}			
S^{2-}	Ag_2S precipi-	Cl^-				75
	tate based	Br^-	$10^{-8}-10^{-10}$			
	heterogeneous	I^-				
	/thermoplas-	CN^-				
	tic matrix/	$S_2O_3^{2-}$				
		Na^+				
		K^+				
		Ca^{2+}	$10^{-5}-10^{-6}$			
		Mg^{2+}				
		Pb^{2+}				
		Cu^{2+}				

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		Hg^{2+}	10^{-2}			
S^{2-}	Ag_2S precipitate based heterogeneous /SR/	I^-	$1,6.10^{-8}$	titration	$C_j=10^{-1}-10^{-2}M$	122
		Br^-	$2,5.10^{-12}$			
		Cl^-	$6,3.10^{-15}$			
		OH^-	$6,3.10^{-17}$			
		SCN^-	$8,0.10^{-13}$			
		SO_4^{2-}	$< 10^{-21}$			
		PO_4^{3-}	$8,0.10^{-17}$			
		Tl^+	$6,3.10^{-25}$			
		Cu^{2+}	$2,0.10^{-14}$			
		Pb^{2+}	$1,6.10^{-22}$			
		Cd^{2+}	$4,0.10^{-23}$			
		Ni^{2+}	$5,0.10^{-24}$			
		Zn^{2+}	$1,3.10^{-28}$			
		Fe^{2+}	$3,2.10^{-22}$			
		Mn^{2+}	$6,3.10^{-37}$			
		La^{3+}	$5,0.10^{-41}$			
		CN^-	$6,3.10^{-4}$			
		$S_2O_3^{2-}$	$2,0.10^{-11}$			
S^{2-}	Ag_2S precipitate/Crytur/	Cl^-, Br^-, I^-, CN^-, $S_2O_3^{2-}$	$10^{-8}-10^{-10}$			1
		Na^+, K^+, Ca^{2+}, Mg^{2+}, Pb^{2+}, Cu^{2+}	$10^{-5}-10^{-6}$			
S^{2-}	Ag_2S precipitate/Crytur/	Cl^-	3.10^{-31}	separate solution		140
		Br^-	5.10^{-26}			
		I^-	2.10^{-18}			
		OH^-	8.10^{-27}			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		Cl^-	7.10^{-30}	calculated from solubility products		
		Br^-	2.10^{-26}			
		I^-	8.10^{-19}			
		OH^-	$\sim 10^{-35}$			
S^{2-}	Ag_2S homogeneous	I^-	10^{-9}			17
		Br^-	10^{-13}			
		Cl^-	10^{-15}			
		SCN^-	10^{-13}			
		CN^-	10^{-2}			
		OH^-	10^{-16}			
		F^-	10^{-16}			
ClO_4^-	liquid ion exchanger /Orion/	I^-	$1,2.10^{-1}$		$c_{ClO_4}=10^{-1}$- -10^{-5} pH 4-11	69
		NO_3^-	2.10^{-3}			
		Br^-	6.10^{-4}			
		F^-	3.10^{-4}			
		Cl^-	2.10^{-4}			
ClO_4^-	liquid ion exchanger /Orion/	I^-	$2,89.10^{-2}$	mixed solution	$c_{ClO_4}=10^{-3}$ I=0,1M	48
		NO_3^-	$4,29.10^{-3}$			
		OAc^-	$1,65.10^{-3}$			
		Br^-	$1,07.10^{-3}$			
		HCO_3^-	$8,82.10^{-4}$			
		F^-	$2,88.10^{-4}$			
ClO_4^-	liquid ion exchanger /Orion/	I^-	0,016-0,071	separate solution	$c=10^{-1}$- $-10^{-4}M$	132
		I^-	0,023-0,020	mixed solution	$c_I=0,1-0,05M$ $c_{ClO_4}=0,002-$ $-0,007M$	
ClO_4^-	ion exchanger Fe/Phen/$_3$/ClO_4/$_2$ in nitrobenzene	NO_3^-	$1,0.10^{-5}$			52
		I^-	$5,9.10^{-3}$			
	$R_4N.ClO_4$	NO_3^-	$2,9.10^{-3}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		I^-	$2,0.10^{-2}$			
	Orion	NO_3^-	$4,3.10^{-3}$			
		I^-	$2,9.10^{-2}$			
	$Ni/Phen/_3/ClO_4/_2$	I^-	$1,3.10^{-2}$			
	$Cu/Phen/_3/ClO_4/_2$	I^-	$3,2.10^{-2}$			
	$Cd/Phen/_3/ClO_4/_2$	I^-	$1,1.10^{-1}$			
ClO_4^-	solid ion	F^-	$4,2.10^{-4}$	separate	$c=10^{-1}M$	127
	exchanger	Cl^-	$7,8.10^{-4}$	solution	unbuffered	
	on Selectrode	Br^-	$6,5.10^{-4}$		solution	
	body	I^-	/75/			
	/azoviolene/	NO_3^-	$1,1.10^{-3}$			
		OAc^-	$3,2.10^{-4}$			
		OH^-	$6,3.10^{-3}$			
		ClO_3^-	$8,7.10^{-4}$			
		BF_4^-	0,12			
		SO_4^{2-}	$2,3.10^{-4}$			
		OH^-	$6,3.10^{-3}$		$c_{ClO_4}=10^{-1}M$	
			$1,1.10^{-2}$		$10^{-2}M$	
			4.10^{-2}		$10^{-3}M$	
			$2,1.10^{-1}$		$10^{-4}M$	
ClO_4^-	solid ion	I^-	0,39	separate	$c_i=c_j=10^{-1}M$	128
	exchanger on	Br^-	$6,6.10^{-2}$	solution		
	Selectrode	NO_3^-	$1,4.10^{-2}$			
	/o-tolidine/	Cl^-	2.10^{-3}			
	/o-dianizidine/	I^-	0,36			
		Br^-	2.10^{-2}			
		NO_3^-	$1,8.10^{-2}$			
		Cl^-	9.10^{-3}			
	/tetrameth-	I^-	/1,66/			
	ylene	Br^-	$3,4.10^{-2}$			
	benzidine/	NO_3^-	$2,9.10^{-2}$			
		Cl^-	3.10^{-3}			
ClO_4^-	liquid ion	OH^-	/1,0/	mixed		117
	exchanger	I^-	$1,2.10^{-2}$	solution		

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
	/Orion/	NO_3^-	$1,5.10^{-3}$	mixed		
	$Fe/Phen\text{-}R/_3^{2+}$	Br^-	$5,6.10^{-4}$	solution		
		OAc^-	$5,1.10^{-4}$			
		HCO_3^-	$3,5.10^{-4}$			
		F^-	$2,5.10^{-4}$			
		Cl^-	$2,2.10^{-4}$			
		SO_4^{2-}	$1,6.10^{-4}$			
ClO_4^-	liquid	I^-	$2,4.10^{-2}$	separate	$c=10^{-1}M$	130
	azoviolene	BF_4^-	$1,2.10^{-1}$	solution	for SO_4^{2-} :	
	derivative in	OH^-	$1,6.10^{-3}$		$10^{-2}M$	
	dichloro	NO_3^-	$2,0.10^{-3}$			
	benzene	ClO_3^-	$1,8.10^{-3}$			
		SO_4^{2-}	$1,7.10^{-5}$			
		Br^-	$2,8.10^{-4}$			
		F^-	$1,8.10^{-4}$			
		OAc^-	$4,1.10^{-5}$			
		Cl^-	$2,5.10^{-5}$			
ClO_4^-	ion exchanger	OH^-	$1,3.10^{-3}$	mixed	$10^{-1}M$	115
	/Orion/ in PVC			solution	NaOH	
		I^-	5.10^{-3}	separate	$c_I=10^{-1}M$	
				solution		
		Br^-	1.10^{-6}		$c_{Br}=10^{-2}M$	
		NO_3^-	$2,9.10^{-5}$			
ClO_4^-	Brilliant	I^-	9.10^{-2}	separate		32
	Green	HCO_3^-	5.10^{-2}	solution		
	in rubber	NO_3^-	10^{-2}	$E_1 = E_2$		
		Br^-	8.10^{-3}			
		OAc^-	7.10^{-3}			
		Cl^-	5.10^{-3}			
		F^-	3.10^{-3}			
ClO_4^-	liquid	IO_4^-	$7,4.10^{-2}$	mixed	$c_{ClO_4}=0,2$	60
	/Methylene	I^-	$4,8.10^{-2}$	solution	- 2 mM	
	blue in	SCN^-	$4,7.10^{-2}$		c_j=high	
	nitrobenzene/	SO_4^{2-}	$2,5.10^{-3}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		ClO_3^-	$1,3.10^{-3}$	mixed solution	c_{ClO_4} = 0,2 -2 mM; c_j = high	
		OAc^-	$1,2.10^{-3}$			
		BrO_3^-	$9,1.10^{-4}$			
		CO_3^{2-}	$8,3.10^{-4}$			
		IO_3^-	$8,0.10^{-4}$			
		NO_3^-	$8,0.10^{-4}$			
		Cl^-	$4,8.10^{-4}$			
		Br^-	$3,4.10^{-4}$			
		OH^-	$9,1.10^{-4}$			
ClO_4^-	liquid ion exchanger /perchlorate of tetrakis-triphenyl phosphine silver /I//	NO_3^-	$2,4.10^{-3}$	separate solution	$c=9,1 \cdot 10^{-3}M$	143
		OAc^-	$4,7.10^{-4}$			
		OH^-	$4,3.10^{-4}$			
		Cl^-	$2,6.10^{-3}$			
		HCO_3^-	$3,4.10^{-4}$			
		$H_2PO_4^-$	$2,9.10^{-4}$			
		SO_4^{2-}	$2,2.10^{-5}$		$c=2,7.10^{-3}M$	
		HPO_4^{2-}	$3,9.10^{-5}$			
		NO_3^-	$2,8.10^{-3}$	mixed solution	$c_j=9,1.10^{-3}M$; c_i varied	
		OAc^-	$1,6.10^{-4}$			
		OH^-	$8,3.10^{-5}$			
		Cl^-	$2,4.10^{-4}$			
		SO_4^{2-}	$3,4.10^{-5}$		$c_j=2,7.10^{-3}M$; c_i varied	
ClO_4^-	coated wire /Aliquat 336S/	Cl^-	4.10^{-3}	mixed solution	$c_i= 10^{-3}$ - $4.10^{-3}M$	58
		NO_3^-	$2,8.10^{-2}$			
		SO_4^{2-}	$< 10^{-3}$			
		ClO_3^-	$3,9.10^{-2}$			
NO_3^-	liquid ion exchanger /Orion/	I^-	/20/		$c_{NO_3}=10^{-1}$ - $10^{-5}M$; pH 2-12	69
		Br^-	0,9			
		NO_2^-	6.10^{-2}			
		CO_3^{2-}	6.10^{-3}			
		SO_4^{2-}	6.10^{-4}			
		F^-	9.10^{-4}			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
NO_3^-	liquid ion exchanger /Orion/	ClO_4^-	/10^3/			117,92
		I^-	/20/			
		ClO_3^-	/2/			
		Br^-	0,9			
		S^{2-}	0,57			
		NO_2^-	6.10^{-2}			
		CN^-	2.10^{-2}			
		HCO_3^-	2.10^{-2}			
		Cl^-	6.10^{-3}			
		OAc^-	6.10^{-3}			
		$S_2O_3^{2-}$	6.10^{-3}			
		SO_3^{2-}	6.10^{-3}			
		F^-	9.10^{-4}			
		SO_4^{2-}	6.10^{-4}			
		$H_2PO_4^-$	3.10^{-4}			
		PO_4^{3-}	3.10^{-4}			
		HPO_4^{2-}	8.10^{-5}			
NO_3^-	liquid ion exchanger in carbon paste /Orion/	$H_2PO_4^-$	3.10^{-4}	separate solution	c=0,1M	104
		SO_4^{2-}	7.10^{-5}			
		Cl^-	3.10^{-3}			
		HPO_4^{2-}	6.10^{-5}			
		Br^-	4.10^{-2}			
		ClO_4^-	/14/			
		I^-	/4/			
NO_3^-	Orion liquid ion exchanger in PVC	F^-	7.10^{-4}	mixed solution	$c_j=5.10^{-2}M$	25
		Cl^-	4.10^{-3}		$c_j=5.10^{-1}M$	
		I^-	/16/		$c_j=5.10^{-5}M$	
		NO_2^-	6.10^{-2}		$c_j=5.10^{-2}M$	
		SO_4^{2-}	3.10^{-4}		$c_j=5.10^{-1}M$	
		ClO_3^-	/1,66/		$c_j=5.10^{-4}M$	
		ClO_4^-	/550/		$c_j=5.10^{-5}M$	
	Corning liquid ion exchanger	F^-	$8,7.10^{-4}$	mixed solution	$c_j=5.10^{-2}M$	
		Cl^-	5.10^{-3}		$c_j=5.10^{-1}M$	

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
	in PVC	I^-	/17/	mixed solution	$c_j=5.10^{-5}M$	
		NO_2^-	0,066		$c_j=5.10^{-2}M$	
		SO_4^{2-}	$< 10^{-5}$		$c_j=5.10^{-1}M$	
		ClO_3^-	/1,66/		$c_j=5.10^{-4}M$	
		ClO_4^-	/800/		$c_j=5.10^{-5}M$	
NO_3^-	liquid ion exchanger in solvent /cetyltrimethyl-ammonium hydroxide in n-octanol/	Cl^-	0,16	mixed solution		40
		Br^-	0,9			
		I^-	/4,2/			
		SO_4^{2-}	0,02			
		PO_4^{3-}	5.10^{-4}			
		$H_2PO_4^-$	5.10^{-4}			
		NO_2^-	0,61			
		OAc^-	0,11			
		CO_3^{2-}	0,05			
		F^-	$5,5.10^{-3}$			
NO_3^-	liquid ion exchanger in PVC /tetraoctyl ammonium nitrate/	ClO_4^-	$/1,26.10^3/$	mixed solution	$c_j=10^{-2}M$, c_i varied	88
		I^-	/14,1/			
		ClO_3^-	/3,0/			
		Br^-	0,13			
		NO_2^-	$7,1.10^{-2}$			
		Cl^-	$5,0.10^{-3}$			
		F^-, OAc^-, SO_4^{2-}, $H_2PO_4^-$, HPO_4^{2-}, HCO_3^-	$< 10^{-3}$			
NO_3^-	liquid ion exchanger /Orion/	ClO_4^-	$/10^3/$			35
		I^-	/20/			
		ClO_3^-	/2/			
		Br^-	0,13			
		SH^-	0,04			
		NO_2^-	0,04			
		CN^-	0,01			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		HCO_3^{-}	9.10^{-3}			
		Cl^-	4.10^{-3}			
		OAc^-	4.10^{-4}			
		CO_3^{2-}	2.10^{-4}			
NO_3^-	ferroin in nitrobenzene	Cl^-	0,33	separate solution	$c_{i,j}=10^{-2}M$	114
		Br^-	0,62			
		I^-	/15/		$c_{Fe/Phen/_3^{2+}}$ $5.10^{-4}M$	
		BF_4^-	/4,8/			
		SCN^-	/22/			
		ClO_4^-	/190/			
		PF_6^-	$/1,6.10^{+3}/$			
	ferroin amyl alcohol	Cl^-	0,25	separate solution	$c_{i,j}=10^{-2}M$	
		Br^-	0,62			
		I^-	/2,5/		$c_{Fe/Phen/_3^{2+}}$ = $2.10^{-3}M$	
		BF_4^-	0,85			
		SCN^-	/5,2/			
		ClO_4^-	/4,8/			
		PF_6^-	/6,6/			
NO_3^-	exchanger /Orion/in PVC	Cl^-	$4,0.10^{-3}$	mixed solution	c_{NO_3}=varied	85
					$c_{Cl}= 5.10^{-1}$	
			$4,5.10^{-3}$		$c_{Cl}= 5.10^{-2}$	
			$1,3.10^{-2}$		$c_{Cl}= 5.10^{-3}$	
SO_4^{2-}	coated wire /Aliquat 336 S/	Cl^-	/16/	mixed solution	$c_i= 10^{-3}$ - 4.10^{-3}	58
		NO_3^-	/30/		c_j varied	
SO_4^{2-}	precipitate /$PbSO_4$+PbS+Ag_2S +Cu_2S/	ClO_4^-	0,1	separate solution	$c_{i,j}$ = $1,7.10^{-2}$ M	82
		NO_3^-	0,1			
		Cl^-	0,5			
		Br^-	0,8			
		I^-	/2,4/			
		HPO_4^{2-}	/390/		pH 10	
		SO_3^{2-}	/182/		pH 10	
		ClO_4^-	$4,6.10^{-3}$	mixed solution		
		NO_3^-	$5,2.10^{-3}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		Cl^-	$1,2.10^{-2}$	mixed solution		
		Br^-	0,2			
SO_3^-	polycrystalline precipitate HgS/Hg_2Cl_2	Cl^-	/1/			138
		Br^-	$/1,3.10^2/$			
		I^-	$/10^5/$			
		SCN^-	/6,3/			
		NO_3^-	$\sim 10^{-3}$		pH 5-6	
		ClO_4^-	$\sim 10^{-3}$		pH 5-6	
CO_3^{2-}	liquid ion exchanger /Aliquat 336 S/ in solvent			separate solution	$c_{CO_3^{2-}} = 10^{-3}M$	46
		Cl^-	$1,9.10^{-4}$		$c_j = 10^{-1}M$	
		OAc^-	$2,5.10^{-2}$			
		SO_4^{2-}	$1,5.10^{-4}$			
		NO_3^-	$2,9.10^{-1}$			
		ClO_4^-	/25/			
		borate	$4,7.10^{-2}$		$c_j = 10^{-2}$	
		HPO_4^{2-}	$2,6.10^{-4}$		$c_j = 2,5.10^{-2}$	
BF_4^-	liquid ion exchanger /Orion/ $Ni/Phen-R/_3^{2+}$	OH^-	10^{-3}	mixed solution		117,92
		I^-	/20/			
		NO_3^-	0,1			
		Br^-	4.10^{-2}			
		OAc^-	4.10^{-3}			
		HCO_3^-	4.10^{-3}			
		F^-	10^{-3}			
		Cl^-	10^{-3}			
		SO_4^{2-}	10^{-3}			
NH_4^+	solid state with biological material	Ba^{2+}	1.10^{-4}			21
		Ca^{2+}	7.10^{-5}			
		Cu^{2+}	1.10^{-4}			
		Pb^{2+}	1.10^{-4}			
		Mg^{2+}	7.10^{-5}			
		Hg^{2+}	3.10^{-1}			
		Ni^{2+}	7.10^{-5}			

Ior or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		K^+	$1,5.10^{-1}$			
		Rb^+	$1,2.10^{-1}$			
		Ag^+	5.10^{-2}			
		Na^+	$1,7.10^{-3}$			
		Zn^{2+}	7.10^{-5}			
NH_4^+	liquid	Li^+	$4,2.10^{-3}$			123
	/nonactin	Na^+	$2,0.10^{-3}$			
	+ monactin	K^+	$1,2.10^{-1}$			
	in solvent/	Rb^+	$4,3.10^{-2}$			
		Cs^+	$4,8.10^{-3}$			
		Ca^{2+}	$1,7.10^{-4}$			
		H^+	$1,6.10^{-2}$			
Li^+	liquid ion	Na^+	0,3	separate		47
	exchanger	K^+	0,3	solution		
	/n-decanol/					
Na^+	Na stearate	Li^+	0,8	separate	$c_{i,j}=10^{-1}M$	10
	membrane	K^+	/1,2/	solution		
		Rb^+	/1,2/			
		Cs^+	0,9			
		H^+	/2/			
		Ca^{2+}	0,2			
		Mg^{2+}	0,2			
K^+	neutral			separate	$c_{i,j}=10^{-1}M$	97
	carrier			solution		
	nonactin	Na^+	10^{-2}			
	monactin	Na^+	$8,3.10^{-3}$			
	valinomycin	Na^+	$2,5.10^{-4}$			
	valinomycin in	H^+	5.10^{-5}			
	diphenyl ether	Li^+	2.10^{-4}			
		Na^+	$2,5.10^{-4}$			
		Rb^+	/1,9/			
		Cs^+	0,4			
		NH_4^+	1.10^{-2}			
		Ag^+	2.10^{-9}			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		Mg^{2+}	2.10^{-4}	separate solution		
		Ca^{2+}	$2,5.10^{-4}$			
		Ba^{2+}	6.10^{-5}			
		Fe^{2+}	4.10^{-4}			
K^+	nonactin in nujol+octanol	NH_4^+	/2,5/			98,110
		Rb^+	$4,2.10^{-1}$			
		Cs^+	$3,1.10^{-2}$			
		H^+	$1,8.10^{-2}$			
		Na^+	$6,6.10^{-3}$			
		Li^+	$5,6.10^{-4}$			
K^+	neutral carrier /valinomycin in diphenyl ether/	Rb^+	/1,9/			110
		Cs^+	$3,8.10^{-1}$			
		NH_4^+	$1,2.10^{-2}$			
		Na^+	$2,6.10^{-4}$			
		Li^+	$2,1.10^{-4}$			
		H^+	$5,5.10^{-5}$			
K^+	liquid ion exchanger	Na^+	7.10^{-4}	mixed solution		36
		NH_4^+	2.10^{-2}			
		Ca^{2+}	2.10^{-4}			
		Mg^{2+}	2.10^{-4}			
K^+	valinomycin /Orion/	H^+	4.10^{-2}	separate solution	$c_j=10^{-3}M$	67
		Li^+	3.10^{-2}			
		Rb^+	/2,9/			
		Cs^+	0,5			
		NH_4^+	0,05			
		Tl^+	0,09			
		Ag^+	2.10^{-3}			
		Na^+	0,09			
		Ca^{2+}	$2,6.10^{-3}$			
		Mn^{2+}	$3,5.10^{-4}$			
		Cu^{2+}	$1,3.10^{-3}$			
		Mg^{2+}	10^{-3}			
		Sr^{2+}	$2,6.10^{-4}$			
		La^{3+}	5.10^{-5}			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		Al^{3+}	5.10^{-4}	separate	$c_j = 10^{-3}M$	
		Rb^+	/25/	solution	$c_j=10^{-2}M$	
		Cs^+	/4/			
		NH_4^+	/19/			
		Tl^+	0,7			
		Ag^+	0,5			
		Na^+	0,02			
K^+	solid, with	NH_4^+	$1,9.10^{-2}$	mixed	$c_j=$ const.	66
	biological	Ca^{2+}	2.10^{-5}	solution	c_j-varied	
	material	Cu^{2+}	3.10^{-5}			
		H^+	2.10^{-4}			
		Mg^{2+}	2.10^{-5}			
		Na^+	5.10^{-5}			
		Cs^+	0,5	separate		
		Li^+	3.10^{-4}	solution		
		Ag^+	$1,7.10^{-3}$			
		Rb^+	/2,2/			
K^+	liquid ion	Cs^+	1			92
	exchanger	NH_4^+	3.10^{-2}			
	/Orion/	H^+	1.10^{-2}			
		Ag^+	1.10^{-3}			
		Na^+	2.10^{-4}			
		Li^+	1.10^{-4}			
K^+	valinomycin	Li^+	$6,7.10^{-5}$		in methanol-	28
		Na^+	10^{-4}		water	
		NH_4^+	2.10^{-2}			
		Rb^+	/2,5/			
K^+	coated wire	H^+	$< 10^{-3}$	mixed		15
	/valinomycin	Li^+	10^{-3}	solution		
	in PVC/	Na^+	10^{-3}			
		Rb^+	/2,5/			
		Cs^+	0,44			
		NH_4^+	$1,2.10^{-2}$			
		Be^{2+}	$< 10^{-3}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		Mg^{2+}	$< 10^{-3}$	mixed solution		
		Ca^{2+}	$< 10^{-3}$			
		Sr^{2+}	$< 10^{-3}$			
		Ni^{2+}	$< 10^{-3}$			
K^+	Corning exchanger	Cs^+	/20/			26
		Rb^+	/10/			
		Na^+	0,012			
		Li^+	4.10^{-3}			
		NH_4^+	0,023			
		Mg^{2+}	3.10^{-3}			
		Ca^{2+}	3.10^{-3}			
K^+	Corning exchanger in PVC + plasticizer	Cs^+	/8,43/		$c_j=10^{-3}M$	26
			/8,33/		$c_j=5.10^{-4}M$	
		Rb^+	/5,85/		$c_j=5.10^{-3}M$	
			/4,57/		$c_j=5.10^{-4}M$	
		Na^+	0,05		$c_j=10^{-1}M$	
			0,021		$c_j=5.10^{-2}M$	
		Li^+	0,082		$c_j=10^{-1}M$	
			0,070		$c_j=5.10^{-2}M$	
		NH_4^+	0,349		$c_j=5.10^{-1}M$	
			0,362		$c_j=5.10^{-2}M$	
			0,408		$c_j=10^{-2}M$	
		Mg^{2+}	$8,02.10^{-4}$		$c_j= 1\ M$	
		Ca^{2+}	$2,3.10^{-2}$		$c_j=5.10^{-2}M$	
			$2,45.10^{-2}$		$c_j=10^{-2}M$	
K^+	valinomycin /liquid/	H^+	5.10^{-5}	mixed solution		95
		Rb^+	/1,9/			
		Li^+	2.10^{-4}			
		NH_4^+	10^{-2}			
		Na^+	$2,5.10^{-4}$			
		Cs^+	4.10^{-1}			
		Ca^{2+}	$2,5.10^{-4}$			
		Mg^{2+}	2.10^{-4}			
		Ba^{2+}	6.10^{-5}			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
	valinomycin in SR	H^+	$1,8.10^{-3}$	mixed solution		
		Rb^+	/1,9/			
		Li^+	$6,3.10^{-4}$			
		NH_4^+	$2,3.10^{-2}$			
		Na^+	$3,3.10^{-4}$			
		Cs^+	$3,4.10^{-3}$			
		Ca^{2+}	$8,5.10^{-4}$			
		Sr^{2+}	$5,4.10^{-4}$			
		Mg^{2+}	$6,2.10^{-4}$			
		Ba^{2+}	$7,2.10^{-4}$			
K^+	K stearate membrane	Li^+	0,8	separate solution	$c_{i,j}=0,1M$	10
		Na^+	0,9			
		Rb^+	/1/			
		Cs^+	0,9			
		H^+	/3/			
		Ca^{2+}	0,3			
		Mg^{2+}	0,3			
		Li^+	0,6		$c_{i,j}=10^{-2}M$	
		Na^+	0,9			
		Rb^+	/1/			
		Cs^+	/1/			
		H^+	/4/			
		Ca^{2+}	/3/			
		Mg^{2+}	/2/			
K^+	crown compound in PVC /dimethyl-dibenzo-30-crown-10/	Na^+	$3,9.10^{-3}$	mixed solution	$c_{Na}=10^{-2}M$	120
			$2,2.10^{-3}$		$c_{Na}=10^{-1}M$	
		Rb^+	$9,2.10^{-1}$	separate solution	$c_{i,j}=10^{-2}M$	
		Cs^+	$2,5.10^{-1}$			
		NH_4^+	7.10^{-2}			
		Li^+	$5,1.10^{-3}$			
		Ca^{2+}	3.10^{-4}			
		Mg^{2+}	10^{-4}			
		Ba^{2+}	$< 10^{-4}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
K^+	crown compounds in nitrobenzene			separate solution		113
	dicyclohexyl -18- crown-6	Rb^+	/2,7-2,9/			
		NH_4^+	/5,3-6,5/			
		Cs^+	/7,9-8,6/			
		Na^+	/21-29/			
	dibenzo-18 crown-6	NH_4^+	/14-17/			
		Cs^+	/3,4-4/			
		Na^+	/23-25/			
		Rb^+	/2,7-3,7/			
K^+	various crown compounds in PVC	Na^+	$2,2.10^{-3}$ $-1,1.10^{-2}$	mixed solution		94
K^+	valinomycin in PVC	Na^+	$< 2.10^{-4}$	mixed solution		80
		Rb^+	/3/			
		NH_4^+	$1,2.10^{-2}$			
		Cs^+	$2,6.10^{-1}$			
		Li^+	$\sim 10^{-4}$			
		Ca^{2+}	$\sim 10^{-4}$			
		Mg^{2+}	$\sim 10^{-4}$			
	crown compound in PVC /dibenzo-18-crown-6/	Na^+	7.10^{-2}			
		Rb^+	10^{-4}			
		NH_4^+	$< 10^{-2}$			
		Cs^+	10^{-1}			
K^+	valinomycin in PVC	NH_4^+	$1,5.10^{-2}$	mixed solution	$c_K=10^{-6}M$	126
			$1,39.10^{-2}$		$c_K=10^{-5}M$	
			$1,19.10^{-2}$		$c_K=10^{-4}M$	
			$1,12.10^{-2}$		$c_K=10^{-3}M$	
		Na^+	$1,06.10^{-4}$		$c_K=10^{-6}M$	
			$1,58.10^{-4}$		$c_K=10^{-5}M$	
			$1,06.10^{-4}$		$c_K=10^{-4}M$	
	crown in PVC /dimethyl-	NH_4^+	$9,43.10^{-2}$		$c_K=10^{-5}M$	
			$9,43.10^{-2}$		$c_K=10^{-4}M$	

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
	dibenzo-30-		$6,32.10^{-2}$	mixed	$c_K=10^{-3}M$	
	crown-10/		$5,02.10^{-2}$	solution	$c_K=10^{-2}M$	
		Na^+	$1,10.10^{-1}$		$c_K=10^{-5}M$	
K^+	valinomycin	NH_4^+	$1,72.10^{-2}$	calculation	$c_K=10^{-6}M$	126
			$2,17.10^{-2}$		$c_K=10^{-3}M$	
		Na^+	$1,46.10^{-4}$		$c_K=10^{-6}M$	
			$3,37.10^{-4}$		$c_K=10^{-4}M$	
	crown/dimet-	NH_4^+	$8,16.10^{-2}$		$c_K=10^{-5}M$	
	hyl-dibenzo-		$3,60.10^{-2}$		$c_K=10^{-2}M$	
	30-crown-10/					
		Na^+	$1,37.10^{-4}$		$c_K=10^{-5}M$	
K^+	valinomycin	Cs^+	0,47	mixed	$c_j=10^{-1}M$	29
	- PVC	Rb^+	/4,7/	solution	c_K varied	
	Selectrode	Na^+	$6,0.10^{-5}$			
		Li^+	$2,4.10^{-4}$			
		NH_4^+	$1,3.10^{-2}$			
		Ag^+	$4,4.10^{-5}$			
		Mg^{2+}	$4,5.10^{-5}$			
		Ca^{2+}	$4,9.10^{-5}$			
		Ba^{2+}	$1,1.10^{-4}$			
		Fe^{2+}	$1,7.10^{-5}$			
		Cu^{2+}	$3,5.10^{-5}$			
K^+	valinomycin in PVC miniature electrode	Na^+	$2,3.10^{-4}$	mixed solution	$c_{Na}=10^{-1}M$, c_K varied	121
	crown in PVC miniature electrode	Na^+	$2,3.10^{-3}$			
K^+	field effect	Na^+	$1,2.10^{-3}$		0,15 M NaCl	87
	transistor		$-7,1.10^{-4}$			
			$1,6.10^{-2}$		0,1M NaCl	
			$-2,5.10^{-3}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
K^+	valinomycin microelectrode	Sr^{2+}, Ba^{2+}, Mg^{2+}	10^{-5}	separate solution	$c_i=c_j=10^{-1}M$	91
		Ca^{2+}	$4,0.10^{-5}$			
		H^+	$4,0.10^{-5}$			
		Li^+	10^{-4}			
		Na	$3,2.10^{-4}$			
		$/CH_3/_4N^+$	$3,2.10^{-4}$			
		acetyl-choline	$4,0.10^{-3}$			
		Cs^+	$4,0.10^{-1}$			
		Rb^+	/2,5/			
		$/C_4H_9/_4N^+$	/5,0/			
K^+	liquid ion exchanger microelectrode /Corning 477317/	Ca^{2+}	2.10^{-3}	mixed solution	I=0,1M	141
		H^+	2.10^{-2}			
		Na^+	2.10^{-2}			
		Ca^{2+}	3.10^{-2}		I=1,0M	
		H^+	3.10^{-2}			
		Na^+	2.10^{-2}			
Cs^+	precipitate + inert support /Cs/-12-molybdophosphate/	Li^+	0,12	mixed solution	$c_{Cs}=10^{-2}M$; $c_j=10^{-1}$ - $10^{-5}M$	18
		Na^+	0,073			
		K^+	0,23			
		Rb^+	/430/			
		NH_4^+	/6,3/			
		Tl^+	/560/			
Cs^+	precipitate in solvent /Cs-tetraphenyl-borate/	Rb^+	$1,9.10^{-1}$	mixed solution	c_j=const. c_i varied	20
		K^+	$3,7.10^{-2}$			
		NH_4^+	$2,5.10^{-2}$			
		Na^+	$2,3.10^{-3}$			
		Mg^{2+}	9.10^{-4}			
Cs^+	precipitate in solvent /Cs-tetraphenylborate/	$/CH_3/_4N^+$	$/9.10^1/$	separate solution	$c_{i,j}=10^{-1}M$	9
		Ag^+	$/2.10^{-1}/$			
		K^+	3.10^{-2}			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		NH_4^+	6.10^{-3}	separate solution	$c_{ij}=10^{-1}M$	
		H^+	1.10^{-3}			
		Na^+	4.10^{-4}			
		Li^+	4.10^{-4}			
		Hg^{2+}	3.10^{-1}			
		Co^{2+}	3.10^{-4}			
		Cu^{2+}	2.10^{-4}			
		Ca^{2+}	8.10^{-5}			
		Mn^{2+}	6.10^{-5}			
		Ba^{2+}	6.10^{-5}			
		Sr^{2+}	6.10^{-5}			
		Ni^{2+}	4.10^{-5}			
		Mg^{2+}	3.10^{-5}			
		Zn^{2+}	3.10^{-5}			
		Al^{3+}	1.10^{-4}			
Cs^+	precipitate + araldite /Cs-tungstoarsenate/	Na^+	$5,15.10^{-2}$	mixed solution	$c_{Cs}=10^{-4}M$ $c_j= 10^{-2}M$	73
		K^+	$5,23.10^{-2}$			
		NH_4^+	$5,32.10^{-2}$			
		Rb^+	$5,23.10^{-2}$			
		Tl^+	$5,16.10^{-2}$			
		Sr^{2+}	$0,81.10^{-2}$			
		Ba^{2+}	$0,94.10^{-2}$			
Ca^{2+}	liquid ion exchanger /Orion, Corning/	Zn^{2+}	/3,2/		$c_{Ca}=1-10^{-5}M$ pH 5,5-11	69
		Fe^{2+}	0,8			
		Pb^{2+}	0,6			
		Mg^{2+}	10^{-2}			
		Ba^{2+}	10^{-2}			
		Na^+	3.10^{-4}			
Ca^{2+}	liquid ion exchanger /Orion, Corning/	Sr^{2+}	$1,4.10^{-2}$	separate solution	pH 5,5-11	107
		Mg^{2+}	5.10^{-3}			
		Ba^{2+}	$1,6.10^{-3}$			
		Na^+	$3,1.10^{-4}$			
		K^+	$3,1.10^{-4}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
Ca^{2+}	liquid ion exchanger /Ca salt of didecyl phosphoric acid in di-n-octyl-phenyl phosphonate/	H^+	/10^5/	mixed solution	$c_{Ca}=10^{-4}$ - 10^{-1} M, $c_j=10^{-2}$_1M	116
		K^+	10^{-4}			
		Na^+	10^{-4}			
		NH_4^+	10^{-4}			
		Mg^{2+}	$1,4.10^{-2}$			
		Ba^{2+}	10^{-2}			
Ca^{2+}	ion exchanger in collodium /Ca salt of dialkyl phosphoric acid/	Mg^{2+}	0,34	mixed solution		124
		Ba^{2+}	0,90			
		Na^+	$2,9.10^{-2}$			
		K^+	$3,4.10^{-2}$			
		H^+	/$1,5.10^4$/			
Ca^{2+}	liquid ion exchanger /dioctyl phosphoric acid didecyl phosphoric acid/	Na^+	/10,7/			44
		K^+	/8,5/			
		NH_4^+	/22,8/			
		Mg^{2+}	0,4			
Ca^{2+}	liquid ion exchanger /Orion/	Mg^{2+}	0,04		pH 9,2, I=0,01M	109
		Ba^{2+}	0,04			
		Sr^{2+}	0,07			
		Cd^{2+}	0,03			
		Na^+	0,001			
		K^+	0,001			
Ca^{2+}	liquid ion exchanger	Zn^{2+}	/3,2/			117
		Fe^{2+}	0,80			
		Pb^{2+}	0,63			
		Cu^{2+}	0,27			
		Ni^{2+}	0,08			
		Sr^{2+}	0,02			
		Mg^{2+}	0,01			
		Ba^{2+}	0,01			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		H^+	$/10^7/$			
		Na^+	0,0016			
Ca^{2+}	liquid ion exchanger /Orion/	Zn^{2+}	/3,2/			92,83
		Fe^{2+}	0,80			
		Pb^{2+}	0,63			
		Cu^{2+}	0,27			
		Ni^{2+}	0,080			
		Sr^{2+}	0,017			
		Mg^{2+}	0,014			
		Ba^{2+}	0,010			
Ca^{2+}	ion exchanger immobilized /Beckman 39608/	H^+	/72/		$c_{Ca}=10^{-3}M$; $[Me^{2+}]/[Ca^{2+}]$ = 0,1 - 32; $[Me^{+}]/[Ca^{2+}]$ = 0,3 - 97	111
		Na^+	$1,5.10^{-2}$			
		Mg^{2+}	$1,2.10^{-1}$			
		Sr^{2+}	$9,3.10^{-2}$			
		Ba^{2+}	/7,9.10/			
Ca^{2+}	liquid ion exchanger /Orion/	H^+	/105/			83
		Na^+	10^{-4}			
		K^+	10^{-4}			
		NH_4^+	10^{-4}			
Ca^{2+}	ion exchanger in PVC /di-decylphos-phoric acid/	Mg^{2+}	0,0051 - 0,13	separate solution	$c_i = c_j$	84
		Ba^{2+}	0,003 - 0,09			
		Zn^{2+}	0,0098 - 0,90			
		Na^+	0,0052 - 0,27			
		K^+	0,0026 - 0,39			
		H^+	/ 29 - 27/			
Ca^{2+}	ion exchanger in PVC	Mg^{2+}	0,0045 - 0,0097	separate solution,		

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
	/didecyl-	Ba^{2+}	0,0023	equal		
	phosphoric		- 0,0074	potentials		
	acid/	Zn^{2+}	0,0056			
			- 0,5			
		Na^{+}	0,0054			
			- 0,0061			
		K^{+}	0,0027			
			- 0,0055			
		H^{+}	/26/			
		Mg^{2+}	0,22	mixed		
			- 0,036	solution		
		Ba^{2+}	0,013			
			- 0,005			
		Zn^{2+}	0,065			
		K^{+}	$2,2.10^{-5}$			
		Na^{+}	$6,7.10^{-5}$			
		H^{+}	/40-25/			
	liquid ion	Mg^{2+}	0,010	separate	$a_i = a_j$	
	exchanger		- 0,29	solution		
	/Orion 92-20/	Ba^{2+}	0,0059			
			- 0,18			
		Zn^{2+}	0,011			
			- 0,65			
		Na^{+}	0,0058			
			- 0,42			
		K^{+}	0,002			
			- 0,37			
		H^{+}	/300			
			- 590/			
		Mg^{2+}	0,007	separate		
			- 0,04	solution		
		Ba^{2+}	0,0036	equal		
			- 0,027	potentials		
		Zn^{2+}	0,007			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
			- 0,32	separate		
		Na^+	0,005	solution		
			- 0,006	equal		
		K^+	0,0013	potentials		
			- 0,0016			
		H^+	/590/			
		Mg^{2+}	0,055	mixed		
			- 0,025	solution		
		Ba^{2+}	0,033			
			- 0,011			
		Zn^{2+}	0,081			
		K^+	$6,6.10^{-5}$			
		Na^+	$1,7.10^{-4}$			
		H^+	$/1,3.10^{4}$			
			$- 2.10^{3}/$			
	Orion 92-20-02	Mg^{2+}	0,0044	separate	$c_i=c_j$	
	exchanger in		- 0,14	solution		
	PVC	Ba^{2+}	0,0029			
			- 0,088			
		Zn^{2+}	0,0094			
			- 0,88			
		Na^+	0,0054			
			- 0,29			
		K^+	0,0027			
			- 0,41			
Ca^{2+}	Orion 92-20-02	Mg^{2+}	0,0035-0,01	separate		84
	exchanger in		0,002-0,003	solution		
	PVC	Zn^{2+}	0,0069-0,62	equal		
		Na^+	0,006-0,0068	potentials		
		K^+	0,0028-0,0069			
Ca^{2+}	liquid ion	Ni^{2+}	0,026	mixed	$c_{Ca}=10^{-3}$	14
	exchanger	Cu^{2+}	0,24	solution	$- 10^{-4}M$	
	/Orion/	Mg^{2+}	0,033		$c_j=10^{-2}M$	
		Ba^{2+}	0,016			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		Sr^{2+}	0,029	mixed solution		
		Pb^{2+}	0,23			
		Zn^{2+}	/1,44/			
	coated wire	Ni^{2+}	0,0039			
		Cu^{2+}	0,15			
		Mg^{2+}	0,014			
		Ba^{2+}	0,0036			
		Sr^{2+}	0,021			
		Pb^{2+}	/1,86/			
		Zn^{2+}	/32,3/			
Ca^{2+}	ion exchanger /didecylphosphoric acid, monocalcium-di/didecylphosphate/, monocalcium dihydrogen tetra /didecylphosphate/in PVC /various compositions/	Mg^{2+}	$3,2.10^{-3}$	mixed solution	$c_j=1-10^{-3}M$	42
			$-8,9.10^{-2}$			
		Na^+	$1,5.10^{-4}$			
			- 4,8			
		K^+	$1,6.10^{-4}$			
			$-1,7.10^{-1}$			
Ca^{2+}	liquid ion exchanger /Orion/	H^+	/1,8±0,3/.10	mixed solution	pH 4 - 2,5	5
Ca^{2+}	neutral carrier	Li^+	$2,3.10^{-3}$	separate solution		2, 131
		Na^+	$5,7.10^{-3}$			
		K^+	$7,3.10^{-2}$			
		Rb^+	$1,6.10^{-1}$			
		Cs^+	$5,2.10^{-2}$			
		Mg^{2+}	3.10^{-5}			
		Sr^{2+}	1.10^{-2}			
		Ba^{2+}	8.10^{-2}			
		Al^{3+},	$3,5.10^{-4}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		H^+	$4,1.10^{-2}$	separate solution		
		NH_4^+	$1,7.10^{-1}$			
		Cu^{2+}	4.10^{-3}			
		Zn^{2+}	1.10^{-3}			
		UO_2^{2+}	$6,4.10^{-3}$			
Ca^{2+}	ion exchanger /Orion/in PVC with graphite contact	Mg^{2+}	6.10^{-4}	mixed solution		4
		Ba^{2+}	$1,8.10^{-3}$			
		Ni^{2+}	3.10^{-3}			
		Zn^{2+}	0,27			
		Pb^{2+}	/2,9/			
Ca^{2+}	liquid ion exchanger in PVC Selectrode /dioctyl-phenyl phosphonate/	Mg^{2+}	$2,5.10^{-4}$	separate solution		119
		Sr^{2+}	$1,7.10^{-2}$			
		Ba^{2+}	$2,5.10^{-4}$			
		Cu^{2+}	$1,6.10^{-4}$			
		Zn^{2+}	$6,0.10^{-2}$			
		Cd^{2+}	$3,0.10^{-4}$			
		Li^+	$5,8.10^{-5}$			
		K^+	$2,0.10^{-6}$			
		Na^+	$6,3.10^{-6}$	mixed solution		
		H^+	$/1,6.10^4/$			
Ca^{2+}	neutral carrier	Mg^{2+}	2.10^{-4}	separate solution	$c_i=c_j=10^{-2}M$	86
		Sr^{2+}	10^{-1}			
		Ba^{2+}	9.10^{-1}			
		Ni^+	6.10^{-2}			
		Na^+	3.10^{-1}			
		K^+	10^{-1}			
		Rb^+	3.10^{-2}			
		Cs^+	10^{-2}			
		NH_4^+	10^{-1}			
		Al^{3+}	2.10^{-4}			
		Cu^{2+}	2.10^{-3}			
		Zn^{2+}	6.10^{-4}			
		Ce^{3+}	2.10^{-2}			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
Ca^{2+}	liquid ion exchanger /Orion 92-20/	H^+	/40/	mixed solution		93
		Na^+	0,04			
		NH_4^+	0,15			
		Mg^{2+}	0,028			
		Mn^{2+}	0,21			
Ca^{2+}	neutral carriers /different/	Mg^{2+}	3.10^{-5}	separate solution	$c_i=c_j=10^{-1}M$	3
		Ba^{2+}	8.10^{-2}			
		Na^+	7.10^{-3}			
		K^+	9.10^{-2}			
		Cs^+	6.10^{-2}			
		Mg^{2+}	3.10^{-4}			
		Ba^{2+}	6.10^{-2}			
		Na^+	5.10^{-3}			
		K^+	/2/			
		Mg^{2+}	3.10^{-4}			
		Ba^{2+}	4.10^{-1}			
		Na^+	2.10^{-2}			
		K^+	9.10^{-2}			
		Cs^+	5.10^{-2}			
Ca^{2+}	liquid ion exchanger /Orion/	Cs^+	$4,9.10^{-3}$	separate or mixed solution method		49
		Rb^+	$5,1-10^{-3}$			
		K^+	$/5-6,4/.10^{-3}$			
		Na^+	$/7-8,3/.10^{-3}$			
		NH_4^+	$/2-3,7/.10^{-2}$		pH 7,5	
		Li^+	0,06-0,13			
	divalent cation electrode /Orion/	Rb^+	$/2-5/.10^{-2}$			
		K^+	$/3-5,5/.10^{-2}$			
		Na^+	$/4-7/.10^{-2}$			
		Li^+	0,15-0,30			
Ca^{2+}	coated wire /with ion exchanger/ /Ca salt of 2-ethylhexyl	Ba^{2+}	0,403	mixed solution	without plasticizer	16
		Mg^{2+}	0,197			
		Ni^{2+}	0,650			
		Sr^{2+}	0,399			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
	phosphoric acid/					
		Na^{+}	0,010	mixed solution	without plasticizer	
		K^{+}	0,045			
		Cu^{2+}	/2,11/			
		Pb^{2+}	/2,69/			
		Zn^{2+}	$< 10^{-3}$			
		Ba^{2+}	0,009		with plasticizer	
		Mg^{2+}	0,050			
		Ni^{2+}	0,028			
		Sr^{2+}	0,024			
		Na^{+}	0,003			
		K^{+}	0,023			
		Cu^{2+}	/4,95/			
		Pb^{2+}	/46,2/			
		Zn^{2+}	/69,6/			
Ca^{2+}	antibiotic /A 23187/in solvent /nitrobenzene/	Mg^{2+}	0,051	mixed solution	c_j=const $c_i=10^{-1}-10^{-4}M$	24
		Na^{+}	0,23			
		Sr^{2+}	/97/			
		H^{+}	$/2,5.10^{4}/$			
Ca^{2+}	ion exchanger di[p-/1,1,3,3-tetramethyl-butyl/ phenyl] phosphoric acid in PVC /microelectrode/	K^{+}	$< 10^{-7} - 7.10^{-7}$	mixed solution	$c_K = 2.10^{-1} - 1M$	13
		Mg^{2+}	$3.10^{-4} - 3.10^{-2}$	separate solution		
						30
Ca^{2+}	Orion exchanger	Na^{+}	/1,4-1,2/	mixed solution	$c_{Na}=10^{-2}M$ pH 5,5-9	61
		Mg^{2+}	$/2,6-5,5/10^{-2}$		$c_{Mg}=10^{-3}$ M pH 5,5-9	
	in different plastic matrices	Na^{+}	0,85		$c_{Na}=10^{-2}M$	

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		Mg^{2+}	$4,5.10^{-2}$		$c_{Mg}=10^{-3}M$	
Ca^{2+}	liquid ion exchanger /Orion/	Mg^{2+}	0,018		flow conditions	30
		Li^{2+}	0,156			
		Na^{+}	0,010			
		K^{+}	0,006			
Ca^{2+}	divalent cation electrode /Orion/	Li^{+}	0,124		flow conditions	30
		Na^{+}	0,025			
		K^{+}	0,018			
$Ca^{2+}+Mg^{2+}$	liquid ion exchanger /Orion/	Zn^{2+}	/3,5/		pH 5,5-11	69
		Fe^{2+}	/3,5/			
		Cu^{2+}	/3,1/			
		Ni^{2+}	/1,4/			
		Ca^{2+}	/1/			
		Mg^{2+}	/1/			
		Ba^{2+}	0,9			
		Na^{+}	0,02			
$Ca^{2+}+Mg^{2+}$	divalent cation electrode /Orion/	Zn^{2+}	/3,5/			92,117
		Fe^{2+}	/3,5/			
		Cu^{2+}	/3,1/			
		Ni^{2+}	/1,35/			
		Ca^{2+}	/1/			
		Mg^{2+}	/1/			
		Ba^{2+}	0,94			
		Sr^{2+}	0,54			
		Na^{+}	0,01			
Ba^{2+}	neutral carrier /polyethylene glycol derivative/	Ba^{2+}	/1/	separate solution	$c_i=c_j=10^{-1}M$	68
		Sr^{2+}	2.10^{-3}			
		Ca^{2+}	$< 10^{-4}$			
		Mg^{2+}	$< 10^{-4}$			
		Ni^{2+}	$< 10^{-4}$			
		Co^{2+}	$< 10^{-4}$			
		Zn^{2+}	$< 10^{-4}$			
		Fe^{2+}	$< 10^{-4}$			
		K^{+}	8.10^{-3}			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		NH_4^+	6.10^{-4}	separate solution		
		Na^+	2.10^{-4}			
		Li^+	2.10^{-4}			
		H^+	2.10^{-4}			
Ba^{2+}	neutral carrier in PVC /Ba complex of nonylphenoxy-poly/ethylene-oxy/ethanol	Li^+	$1,8.10^{-3}$	mixed solution	$c_j=10^{-1}M$	57
		Na^+	3.10^{-3}			
		K^+	$9,5.10^{-3}$			
		Rb^+	$1,8.10^{-2}$			
		Cs^+	9.10^{-2}			
		Be^{2+}	$2,6.10^{-3}$		$c_{Be}=10^{-2}M$	
		Mg^{2+}	$2,2.10^{-4}$			
		Ca^{2+}	$2,3.10^{-4}$			
		Sr^{2+}	$2,8.10^{-3}$			
		Ni^{2+}	$1,2.10^{-4}$			
		Cu^{2+}	$3,6.10^{-3}$			
Ba^{2+}	antibiotic in solvent	Ca^{2+}	$1,4.10^{-3}$	mixed solution		24
		Mg^{2+}	$1,3.10^{-3}$			
Ba^{2+}	neutral carrier in PVC /N,N,N;N' tetraphenyl 3,6,9 trioxa-undecane diamide/	Mg^{2+}	$\sim 10^{-5}$	separate solution		43
		Ca^{2+}	$\sim 2.10^{-4}$			
		Li^+	$\sim 5.10^{-4}$			
		NH_4^+	$\sim 3,2.10^{-3}$			
		Cs^+	$\sim 3,2.10^{-3}$			
		Na^+	$\sim 3,2.10^{-3}$			
		Rb^+	$\sim 10^{-2}$			
		K^+	$\sim 2.10^{-2}$			
		Sr^{2+}	$\sim 3,2.10^{-2}$			
		H^+	$\sim 6,3.10^{-2}$			
Zn^{2+}	liquid ion exchanger in PVC /Zn salt of di-n-octyl phenyl phosphoric acid/	H^+	/50/	separate solution	$c_i=c_j=10^{-1}M$	41
		NH_4^+	5.10^{-2}			
		Li^+	8.10^{-1}			
		Na^+	10^{-2}			
		K^+	2.10^{-3}			
		Rb^+	4.10^{-3}			
		Cs^+	$2,5.10^{-3}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		Mg^{2+}	$3,2.10^{-1}$			
		Ca^{2+}	$/1,6.10^{3}/$			
		Sr^{2+}	/40/			
		Ba^{2+}	4.10^{-1}			
		Cu^{2+}	$2,5.10^{-1}$			
		Cd^{2+}	/1/			
		Pb^{2+}	/13/			
Cd^{2+}	precipitate	Na^{+}	$3,21.10^{-8}$	separate	I=0,03	12
	$CdS+Ag_2S$	K^{+}	$6,69.10^{-8}$	solution		
		Mg^{2+}	$1,63.10^{-4}$			
		Ca^{2+}	$2,24.10^{-4}$			
		Zn^{2+}	$4,14.10^{-4}$			
		Co^{2+}	$2,03.10^{-2}$			
		Ni^{2+}	$3,24.10^{-2}$			
		Al^{3+}	$1,34.10^{-1}$			
		H^{+}	/2,41/			
		Mn^{2+}	/2,68/			
		Pb^{2+}	/6,08/			
		Tl^{+}	/122/			
		Fe^{2+}	/196/			
		S^{2-}	$3,77.10^{-22}$			
		CN^{-}	$5,37.10^{-16}$			
		OH^{-}	$1,49.10^{-6}$			
		I^{-}	$6,06.10^{-6}$			
		CO_3^{2-}	$1,72.10^{-5}$			
		CrO_4^{2-}	$5,07.10^{-5}$			
		SO_3^{2-}	$6,98.10^{-5}$			
		F^{-}	$1,12.10^{-2}$			
		Br^{-}	$1,42.10^{-2}$			
		SO_4^{2-}	$1,81.10^{-2}$			
		ClO_4^{-}	$3,37.10^{-2}$			
		Cl^{-}	$3,63.10^{-2}$			
		IO_3^{-}	/26,3/			
		$Cr_2O_7^{2-}$	$/10^{11}/$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
Cd^{2+}	$CdS-Ag_2S$ homogeneous	Hg^{2+}	/$\sim 10^6$/			17
		Ag^+	/$\sim 10^6$/			
		Cu^{2+}	/$\sim 10^2$/			
		Pb^{2+}	/5/			
Cd^{2+}	$CdS-Ag_2S$	Ca^{2+}	10^{-2}	separate solution		39
		Zn^{2+}	4.10^{-2}			
		Ni^{2+}	7.10^{-2}			
		Pb^{2+}	5.10^{-1}			
		Ca^{2+}	9.10^{-2}	mixed solution		
		Zn^{2+}	10^{-1}			
		Ni^{2+}	2.10^{-1}			
		Pb^{2+}	6.10^{-1}			
		Zn^{2+}	7.10^{-2}	calculated from solubility products		
		Ni^{2+}	7.10^{-2}			
		Pb^{2+}	/20/			
Cd^{2+}	CdS in polyethylene			mixed solution	c_j	79
		H^+	5.10^{-4}		$10^{-2}M$	
		Pb^{2+}	5.10^{-1}		$10^{-2}M$	
		Zn^{2+}	10^{-4}		$10^{-1}M$	
		Co^{2+}	5.10^{-5}		$10^{-1}M$	
		Ni^{2+}	5.10^{-6}		$10^{-1}M$	
		Fe^{3+}	3.10^{-2}		$10^{-3}M$	
					c_{Cd}	
Cd^{2+}	CdS precipitate /Orion/	Zn^{2+}	$9,5.10^{-5}$	mixed solution	$10^{-5}M$	63
			$6,8.10^{-5}$		$10^{-6}M$	
		Fe^{2+}	$\sim 2.10^{-3}$		$10^{-4}M$	
		Pb^{2+}	/7,1/		$10^{-3}M$	
	CdS precipitate on Se-lectrode body	Zn^{2+}	$2,3.10^{-4}$		$10^{-5}M$	
			$1,1.10^{-4}$		$10^{-6}M$	
		Fe^{2+}	$\sim 3.10^{-3}$		$10^{-4}M$	
		Pb^{2+}	/5,4/		$10^{-3}M$	
	TOA electrode	Zn^{2+}	$7,8.10^{-4}$		$10^{-4}M$	
			$1,5.10^{-4}$		$10^{-6}M$	

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
	/Japan/	Fe^{2+}	~ 3.10^{-3}	mixed solutions	$10^{-4}M$	
		Pb^{2+}	0,5		$10^{-2}M$	
			/4,8/		$10^{-4}M$	
		Ag^{+}	/$7,9.10^{22}$/	calculated from solubility products		
		Cu^{2+}	/$1,3.10^{9}$/			
		Hg^{2+}	/$5,0.10^{25}$/			
		Zn^{2+}	$5,0.10^{-3}$			
Hg^{2+}	liquid ion exchanger on graphite rod /diketohydrindylidene-diketohydrindamine/	Bi^{3+}	$1,52.10^{-4}$	separate solution	pH 1	6
		Cd^{2+}	$2,30.10^{-4}$		$c_{i,j}=10^{-1}M$	
		Pb^{2+}	$3,81.10^{-4}$			
		Ni^{2+}	$5,63.10^{-4}$			
		Co^{2+}	$6,46.10^{-4}$			
		Zn^{2+}	10^{-3}			
		Cu^{2+}	$1,35.10^{-2}$			
		Ag^{+}	/1,82/			
Hg^{2+}	liquid /PAN chelate of Hg^{2+} in chloroform/	Cd^{2+}	$8,81.10^{-5}$	separate solution	$c_i=c_j=10^{-1}M$	22
		Cu^{2+}	$1,38.10^{-4}$			
		Ni^{2+}	$7,94.10^{-5}$		pH = 1	
		Co^{2+}	$4,47.10^{-5}$		μ = 0,5	
		Zn^{2+}	$2,76.10^{-5}$			
		Mn^{2+}	$1,58.10^{-5}$			
		Pb^{2+}	$3,55.10^{-5}$			
		Bi^{3+}	$1,05.10^{-5}$			
		Al^{3+}	$4,17.10^{-4}$			
		Mg^{2+}	$1,70.10^{-4}$			
		Ag^{+}	/7,25/			
		Fe^{3+}	/$2,40.10^{5}$/			
Pb^{2+}	precipitate $PbS-Ag_2S$	Ni^{2+}	$3,2.10^{-4}$		$c_{Pb}=10^{-2}M$	112
		Mn^{2+}	$1,2.10^{-4}$			
		Zn^{2+}	3.10^{-5}			
		Mg^{2+}	7.10^{-6}			
		Ni^{2+}	4.10^{-3}		$c_{Pb}=10^{-3}M$	
		Mn^{2+}	$4,5.10^{-3}$			
		Zn^{2+}	$3,8.10^{-4}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		Mg^{2+}	$8,7.10^{-5}$		$c_{Pb}=10^{-3}M$	
Pb^{2+}	liquid ion exchanger /Orion/	Cu^{2+}	/2,6/			117
		Fe^{2+}	0,08			
		Zn^{2+}	0,003			
		Ca^{2+}	0,005			
		Ni^{2+}	0,007			
		Mg^{2+}	0,008			
Pb^{2+}	Ag_2S-PbS in polyethylene	Cd^{2+}	3.10^{-1} - 8.10^{-1}	separate solution	$c_{i,j}=10^{-1}M$	77
		Mn^{2+}	8.10^{-2} - 3.10^{-4}			
		Zn^{2+}	10^{-2} - 2.10^{-4}			
		Fe^{2+}	10^{-1} - 2.10^{-2}			
		Fe^{3+}	$/80-10^{6}/$			
Pb^{2+}	Ag_2S-PbS	Ca^{2+}	10^{-2}	separate solution		39
		Ni^{2+}	3.10^{-2}			
		Zn^{2+}	2.10^{-2}			
		Cd^{2+}	3.10^{-1}			
		Ca^{2+}	4.10^{-2}	mixed solution		
		Ni^{2+}	2.10^{-1}			
		Zn^{2+}	10^{-1}			
		Cd^{2+}	7.10^{-1}			
		Ni^{2+}	3.10^{-2}	theoretical		
		Zn^{2+}	3.10^{-2}			
		Cd^{2+}	5.10^{-1}			
Pb^{2+}	precipitate /Orion/	Cd^{2+}	0,12	mixed solution	$c_{Pb}=10^{-6}M$	64
			0,045		$c_{Pb}=10^{-5}M$	
			0,18		$c_{Pb}=10^{-4}M$	
	Selectrode	Cd^{2+}	0,012		$c_{Pb}=10^{-6}M$	
			0,051		$c_{Pb}=10^{-5}M$	
			0,064		$c_{Pb}=10^{-4}M$	

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
Pb^{2+}	precipitate, PbS	Ag^{+}	/1,6.10^{22}/	separate solution	$c_{i,j}=10^{-3}M$	51
			/4,0.10^{22}/	calculated from solubility products		
			0,84	calc.from diffusion layer model		
		Cd^{2+}	0,23	separate solution	$c_{i,j}=10^{-3}M$	
			0,53	mixed solution		
			0,32	calculated from solubility products		
			0,22	calc.from diffusion layer model		
Cu^{2+}	liquid ion exchanger /Orion/	Fe^{2+}	/1,0/		$c_{Cu}=10^{-1}$ - $10^{-5}M$ pH 4-7	69
		Ni^{2+}	5.10^{-3}			
		Zn^{2+}	10^{-3}			
		Ca^{2+}	5.10^{-4}			
		Na^{+}	10^{-4}			
		K^{+}	10^{-4}			
Cu^{2+}	liquid ion exchanger /Orion/	Na^{+}	5.10^{-4}			107
		K^{+}	5.10^{-4}			
		Mg^{2+}	10^{-3}			
		Sr^{2+}	10^{-3}			
		Ba^{2+}	10^{-3}			
		Ca^{2+}	2.10^{-3}			
		Zn^{2+}	3,3.10^{-2}			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		Ni^{2+}	10^{-2}			
		H^+	/10/			
		Fe^{2+}	$/1,4.10^2/$			
Cu^{2+}	liquid ion exchanger /Orion/	H^+	/10/			108
Cu^{2+}	CuS-Ag_2S in thermoplastic polymer	Pb^{2+}	$< 10^{-4}$			76
		Co^{2+}	$< 10^{-4}$			
		Zn^{2+}	$< 10^{-4}$			
		Ni^{2+}	$< 10^{-4}$			
		Na^+	$< 10^{-4}$			
		K^+	$< 10^{-4}$			
		Ca^{2+}	$< 10^{-4}$			
		Mg^{2+}	$< 10^{-4}$			
Cu^{2+}	$Cu_{1,8}Se$	Pb^{2+}	$1,3.10^{-3}$	separate solution	$c_{i,j}=10^{-1}M$ pH 3	139
			$1,1.10^{-3}$		$c_{i,j}=10^{-2}M$ pH 3	
			$1,5.10^{-2}$		$c_{i,j}=10^{-3}M$ pH 3	
		Pb^{2+}	$6,6.10^{-4}$		$c_{i,j}=10^{-2}M$ pH 5	
			$3,1.10^{-3}$		$c_{i,j}=10^{-3}M$ pH 5	
Cu^{2+}	Crytur monocrystal	K^+	$\sim 10^{-4}$			1
		Na^+	$\sim 10^{-4}$			
		Li^+	$\sim 10^{-4}$			
		Ba^{2+}	$\sim 10^{-4}$			
		Ca^{2+}	$\sim 10^{-4}$			
		Mg^{2+}	$\sim 10^{-4}$			
		Ni^{2+}	$\sim 10^{-3}$			
		Co^{2+}	$\sim 10^{-3}$			
		Cd^{2+}	$\sim 10^{-3}$			
Cu^{2+}	liquid ion	H^+	$/7.10^3/$			92

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
	exchanger	Fe^{2+}	/1/			
	/Orion/	Ni^{2+}	5.10^{-3}			
		Zn^{2+}	10^{-3}			
		Na^{+}	$< 10^{-3}$			
		K^{+}	$< 10^{-3}$			
		Ca^{2+}	5.10^{-4}			
		Sr^{2+}	2.10^{-4}			
		Ba^{2+}	2.10^{-4}			
		Mg^{2+}	$< 10^{-4}$			
Cu^{2+}	solid ion	Pb^{2+}	10^{-3}			129
	exchanger	Li^{+}	10^{-5}			
	/Cu salt of	Na^{+}	10^{-5}			
	2,4,5,7 tetra-	K^{+}	10^{-5}			
	nitrofluoren-	H^{+}	10^{-2}			
	$\Delta^{9\alpha}$-malo-	Ni^{2+}	10^{-4}			
	nonitrile/					
Cu^{2+}	precipitate	Pb^{2+}		titration		96
	in SR	Cd^{2+}	$< 2,8.10^{-9}$ (for Pb^{2+}, Cd^{2+}, Zn^{2+}, Co^{2+}, Ni^{2+}, Mn^{2+})			
		Zn^{2+}				
		Co^{2+}				
		Ni^{2+}				
		Mn^{2+}				
Cu^{+}	Cu_2S single crystal	Cu^{2+}	$2,5.10^{-7}$	calculated from solubility products		50
			$1,2.10^{-6}$	calculated with knowledge of E_o		
Cu^{2+}	$C_{2-x}S$ in epoxy resin	Cu^{+}	$/6,4.10^{11} - 2.10^{12}/$			45
Ag^{+}	Ag_2S	Hg^{2+}	/1/			17
	homogeneous	Cu^{2+}	10^{-6}			
		Pb^{2+}	10^{-6}			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		Cd^{2+}	10^{-6}			
Ag^{+}	Ag_2S precipitate /Crytur/	Cu^{2+}	10^{-5}	separate solution		140
		Pb^{2+}	10^{-6}			
		H^{+}	9.10^{-6}			
		Cu^{2+}	9.10^{-8}	theoretical		
		Pb^{2+}	9.10^{-12}			
		H^{+}	9.10^{-12}			
	Ag_2S precipitated under different conditions	Cu^{2+}	10^{-6}	separate solution		
			2.10^{-6}			
			10^{-5}			
			5.10^{-7}			
		Pb^{2+}	8.10^{-9}			
			2.10^{-9}			
			10^{-8}			
			5.10^{-11}			
		H^{+}	4.10^{-7}			
			3.10^{-6}			
			5.10^{-6}			
			6.10^{-12}			
Ag^{+}	ceramic Ag_2S homogeneous	Hg^{2+}	$2,8-5,6.10^{-2}$	separate solution	$c_{i,j}=10^{-1}M$	71
		Cu^{2+}	10^{-5}			
		H^{+}	10^{-5}			
		Cd^{2+}	4.10^{-23}	titration of $10^{-2}M$ solutions separately		99
		Co^{2+}	32.10^{-26}			
		Cu^{2+}	$1,6.10^{-14}$			
		Fe^{2+}	8.10^{-30}			
		Mn^{2+}	$6,3.10^{-38}$			
		Ni^{2+}	$6,3.10^{-29}$			
		Pb^{2+}	4.10^{-14}			
		Zn^{2+}	4.10^{-22}			
Ag^{+}	Ag_2S	Pb^{2+}	$1,3.10^{-15}$	separate solution	$c=10^{-3}M$	51
			$2,5.10^{-23}$	calculated		

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
			$2,5.10^{-23}$	from solubility products calculated from diffusion layer model		
Tl^+	Tl-molybdophosphate in epoxy resin	Li^+	10^{-2}	mixed solution	$c_{Tl}=10^{-4}M$ $c_j=10^{-2}M$	19
		Na^+	10^{-2}			
		K^+	10^{-2}			
		Rb^+	$6,5.10^{-2}$			
		Cs^+	10^{-2}			
		NH_4^+	10^{-2}			
		Mg^{2+}	10^{-3}			
		Ca^{2+}	10^{-3}			
		Sr^{2+}	10^{-3}			
		Ba^{2+}	10^{-3}			
	Tl-tungstophosphate in epoxy resin	Li^+	0,28			
		Na^+	0,53			
		K^+	0,66			
		Rb^+	0,80			
		Cs^+	0,29			
		NH_4^+	0,57			
		Ag^+	0,65			
		Mg^{2+}	2.10^{-2}			
		Ca^{2+}	2.10^{-2}			
		Sr^{2+}	$1,3.10^{-2}$			
		Ba^{2+}	$1,2.10^{-2}$			
Tl^+	Tl-tungstoarsenate in araldite	Na^+	$3,15.10^{-2}$	mixed solution	$c_{Tl}=10^{-4}M$ $c_j=10^{-2}M$	73
		K^+	$3,11.10^{-2}$			
		NH_4^+	$3,10.10^{-2}$			
		Ag^+	$3,21.10^{-2}$			
		Sr^{2+}	$0,44.10^{-2}$			
		Ba^{2+}	$0,46.10^{-2}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
Tl^+	liquid ion exchanger Tl/I/-o,o'-di-decyldithio-phosphate in chlorocyclo-hexane	Hg^{2+}	/ > 1/	mixed solution	$c_{Tl}=10^{-3}M$	134
		Ag^+	/ > 1/			
		Pb^{2+}	/ > 1/			
		Cd^{2+}	/ > 1/			
		H^+	/ 1/			
		Cu^{2+}	0,8			
		Zn^{2+}	$2,9.10^{-3}$			
		Cr^{3+}	$1,9.10^{-3}$			
		Al^{3+}	$1,6.10^{-3}$			
		Ni^{2+}	$8,3.10^{-3}$			
		Fe^{2+}	$2,0.10^{-3}$			
		Co^{2+}	$4,4.10^{-5}$			
		Mn^{2+}	$< 5.10^{-5}$			
		Be^{2+}, Mg^{2+}, Ca^{2+}, Sr^{2+}, Ba^{2+}, Li^+, Na^+, K^+, Rb^+, Cs^+	$< 10^{-5}$			
Fe^{3+}	Ag_2S-CuS	Cu^{2+}	/6/	mixed solution	$c_{Fe}=10^{-4}M$ I = 0,1 pH 2	38
		Cu^{2+}	10^{-1}	in $6.10^{-3}M$ salicyl-aldoxime		
		Ni^{2+}	5.10^{-2}	mixed solution	$c_{Fe^{3+}}=10^{-4}M$ I = 0,1	
		Pb^{2+}	3.10^{-3}			
		Fe^{2+}	$< 2.10^{-3}$			
		Na^+, K^+	$< 10^{-3}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij} measured	Method	Experimental conditions	Ref.
		NH_4^+	10^{-3}			
		Ca^{2+}				
		Ba^{2+}				
		Cd^{2+}				
$AuCl_4^-$	liquid /Safranine O tetrachloro-aurate/	ClO_4^-	1.10^{-5}	separate solution	$c_i=c_j=10^{-4}M$	33
ReO_4^-	liquid /Brilliant Green perrhenate/	ClO_4^-	0,42	separate solution	$c_i=c_j=10^{-2}M$	34
		SCN^-	0,11			
		NO_3^-	0,002			
		ClO_4^-	0,12	separate solution	$c_i=c_j=10^{-4}M$	
		SCN^-	0,11			
		NO_3^-	0,04			
Tri-fluoro acetate	liquid /Crystal Violet/	ClO_4^-	$/1,5.10^3/$	mixed solution		53
		SCN^-	/5,5.10/			
		NO_3^-	/1/			
		HPO_4^{2-}	10^{-4}			
		SO_4^{2-}	10^{-4}			
		$CH\ Cl_2COO^-$	$2,7.10^{-1}$			
		$C_6H_5COO^-$	1.10^{-1}			
		CH_3COO^-	10^{-4}			
		$/COO/_2^{2-}$	10^{-4}			
		I^-	/1,8.10/			
		Br^-	$1,4.10^{-1}$			
		Cl^-	8.10^{-3}			
		F^-	10^{-4}			
Benzene sulpho-nate	liquid /Crystal Violet/	Cl^-	3.10^{-3}	mixed solution	c_j=0,5 M - 0,005 M	56
		NO_3^-	$7.6.10^{-1}$			
		phenol-4-sulphonate	$1,6.10^{-2}$		0,005 M	
		benzene-m-disulphonate	5.10^{-3}		0,005 M	

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij} measured	Method	Experimental conditions	Ref.
		benzoate	4.10^{-2}		0,005 M	
		-naphthalenesulphonate	/16/		0,00025M	
		1,3,6 naphtalene trisulphonate	8.10^{-4}		c_j 0,005M	
∝-naphthalenesulphonate	liquid /Crystal Violet/	Cl^-	4.10^{-4}	mixed	c_j 0,5M	
		NO_3^-	3.10^{-2}	solution	0,005M	
		benzenesulphonate	7.10^{-2}			
		1,5 naphthalenedisulphonate	7.10^{-4}		0,005M	
		1,3,6-naphthalenetrisulphonate	6.10^{-5}		0,01M	
		4-hydroxy-2-naphthalenesulphonate	$2,5.10^{-2}$		0,005M	
		2,3-dihydroxy naphthalene-6-sulphonate	$4,5.10^{-4}$		0,005M	

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
Iso-lauryl-benzene sulpho-nate	Coated wire /Aliquat 336S in PVC/	Cl^-	$1,2.10^{-2}$			37
		SO_4^{2-}	6.10^{-3}			
		NO_3^-	$9,3.10^{-1}$			
		ClO_4^-	$8,1.10^{-1}$			
		OAc^-	$5,9.10^{-1}$			
		lauryl sulphate	/1,36/			
		lauryl sulphonate	0,81			
		p-toluene sulpho-nate	0,75			
8-quino-line 5-sulpho-nate /Hqs^-/	liquid ion exachanger Ion pair consisting of Hqs^- and benzyl-dimethyl tetradecyl ammonium/	Cl^-	5.10^{-3}	mixed solution	pH = 6,5	133
		OAc^-	8.10^{-3}			
		NO_3^-	3.10^{-2}		$[Hqs^-]=4.10^{-3}M$	
		SO_4^{2-}	8.10^{-3}			
Maleic acid	liquid /Crystal Violet in 1,2-dichlo-roethane/	Acetic acid	10^{-4}	mixed solution	c_i varied c_j const.	56
		fumaric acid	$<10^{-3}$			
		benzoic acid	3.10^{-2}			
		CF_3COO^-	3.10^{-1}			
		salicylic acid	/4,2/			
		phthalic acid	/5,2/			
		benzilic acid	/10/			
		Cl^-	4.10^{-3}			
		Br^-	9.10^{-2}			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		NO_3^-	6.10^{-1}			
		I^-	/14/			
	liquid	ClO_4^-	$/6.10^2/$			
Maleic	/tris-batho-	fumaric acid	$<10^{-3}$	mixed	c_i varied	59
acid	phenanthroli-	salicylic acid	/5,7/	solution	c_j const.	
	ne-Fe/II/ in	phthalic acid	/7,0/			
	nitrobenzene	ClO_4^-	$/1,1.10^3/$			
Phthalic	liquid	acetic acid	2.10^{-5}			
acid	/Crystal	p-and m-isomer	$<10^{-2}$			
	Violet in	benzoic acid	5.10^{-3}			
	1,2-dichlo-	CF_3COO^-	6.10^{-2}			
	roethane/	maleic acid	$1,9.10^{-1}$			
		salicyl acid	$8,5.10^{-1}$			
		benzilic acid	/2/			
		Cl^-	8.10^{-4}			
		Br^-	2.10^{-2}			
		NO_3^-	10^{-1}			
		I^-	/3/			
		ClO_4^-	$/1,2.10^2/$			
	liquid/tris-	p-and m-isomer	$<10^{-2}$			
	batho-phenant-	benzoic acid	3.10^{-3}			
	hroline-Fe/II/	maleic acid	$1,4.10^{-1}$			
	in nitroben-	ClO_4^-	$/1,4.10^2/$			
	zene/					
Vitamin	liquid	NH_4^+	10^{-4}	separate		55
B_1	tetraphe-	Na^+	$<10^{-4}$	solution		
	nylborate	K^+	$<10^{-4}$			
	in 1,2-di-	vit. B_6	/70/			
	chloroethane/					
Vitamin	liquid	NH_4^+	8.10^{-3}			
B_6	/dipicryl-	Na^+	6.10^{-4}			
	amine	K^+	$2,5.10^{-2}$			
	in nitro-	vit. B_1	10^{-1}			
	benzene/					

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
Acetyl choline	liquid /Corning acetyl choline ISE/	Na^+	1.10^{-4}	separate solution		7
		NH_4^+	1.10^{-3}			
		K^+	1.10^{-3}			
		Choline	$6,6.10^{-2}$			
Choline ester	Acetylcholine tetra-aryl borate in PVC+dibutyl phthalate	Choline	/1/	separate solution	$c_i=c_j=10^{-1}M$	8
		Acetyl Choline	/6,87/			
		Acetyl-β-methyl choline	/19,1/			
		Butyryl choline	/50,0/			
	The same + dioctyl phthalate	Choline	/1/			
		Acetyl choline	/5,43/			
		Acetyl-β-methyl choline	/11,5/			
		butyryl choline	/41,7/			
Tryptophane	liquid /Aliquat 336 S in decanol/	glycine	$1,6.10^{-2}$	mixed solution	$c_i=10^{-2}M$; c_j= varied 10^{-1}-$10^{-5}M$	81
		alanine	$2,5.10^{-2}$			
		valine	$1,6.10^{-1}$			
		leucine	$4,0.10^{-1}$			
		isoleucine	$4,0.10^{-1}$			
		serine	$1,3.10^{-2}$			
		histidine	$2,0.10^{-2}$			
		methionine	$1,6.10^{-1}$			
		aspartic acid	10^{-2}			
		glutamic acid	$7,9.10^{-3}$			
		tyrosine	$3,2.10^{-2}$			
		phenyl-alanine	$7,9.10^{-1}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		HPO_4^{2-}	$5,0.10^{-3}$			
		CO_3^{2-}	$7,9.10^{-3}$			
		SO_4^{2-}	10^{-2}			
		Cl^-	$3,2.10^{-1}$			
		NO_3^-	/1,3/			
Phenyl-alanine	liquid /Aliquat 336 S in decanol/	glycine	$4,0.10^{-2}$	mixed solution	$c_i=10^{-2}M$ c_j=varied $10^{-1}-10^{-5}M$	81
		alanine	$5,0.10^{-2}$			
		valine	$1,6.10^{-1}$			
		leucine	$4,0.10^{-1}$			
		isoleucine	$4,0.10^{-1}$			
		serine	$4,0.10^{-2}$			
		histidine	$4,0.10^{-2}$			
		methionine	$2,0.10^{-1}$			
		aspartic acid	$2,0.10^{-1}$			
		glutamic acid	$1,6.10^{-2}$			
		tyrosine	$4,0.10^{-2}$			
		tryptophane	$7,9.10^{-1}$			
		HPO_4^{2-}	10^{-2}			
		CO_3^{2-}	$1,3.10^{-2}$			
		SO_4^{2-}	$2,5.10^{-2}$			
		Cl^-	$6,3.10^{-1}$			
		NO_3^-	/1,3/			
Leucine		glycine	$6,3.10^{-2}$			
		alanine	$6,3.10^{-2}$			
		valine	$2,5.10^{-1}$			
		isoleucine	$6,3.10^{-1}$			
		serine	$3,2.10^{-2}$			
		histidine	$7,9.10^{-2}$			
		methionine	$3,2.10^{-2}$			
		aspartic acid	10^{-2}			
		glutamic acid	$1,3.10^{-2}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		tyrosine	2.10^{-2}			
		phenyl				
		alanine	/1,6/			
		tryptophane	/1,6/			
		HPO_4^{2-}	$4,0.10^{-4}$			
		CO_3^{2-}	$5,0.10^{-3}$			
		SO_4^{2-}	$6,3.10^{-3}$			
		Cl^-	$5,0.10^{-1}$			
		NO_3^-	/1,6/			
Methionine		glycine	$1,6.10^{-1}$			
		alanine	$1,6.10^{-1}$			
		valine	$4,0.10^{-1}$			
		leucine	1			
		isoleucine	$8,0.10^{-1}$			
		serine	$6,3.10^{-2}$			
		histidine	$1,6.10^{-1}$			
		aspartic acid	$6,3.10^{-2}$			
		glutamic acid	$6,3.10^{-2}$			
		tyrosine	$1,3.10^{-1}$			
		phenyl-alanine	$6,3.10^{-1}$			
		tryptophane	$8,0.10^{-1}$			
		HPO_4^{2-}	$6,3.10^{-2}$			
		CO_3^{2-}	$8,0.10^{-2}$			
		SO_4^{2-}	10^{-1}			
		Cl^-	/1,59/			
		NO_3^-	/2,51/			
Valine		glycine	$1,3.10^{-1}$			
		alanine	$1,6.10^{-1}$			
		isoleucine	/2,51/			
		serine	$6,3.10^{-2}$			
		histidine	$6,3.10^{-2}$			

Ion or molecule measured	Type of electrode	Interfering ion or molecule	K_{ij}	Method	Experimental conditions	Ref.
		methionine	$7,9.10^{-1}$			
		aspartic acid	10^{-1}			
		glutamic acid	$7,9.10^{-2}$			
		tyrosine	2.10^{-1}			
		phenyl-alanine	/2,5/			
		tryptophane	/5,0/			
		HPO_4^{2-}	$6,3.10^{-2}$			
		CO_3^{2-}	$1,3.10^{-1}$			
		SO_4^{2-}	$1,6.10^{-1}$			
		Cl^-	/3,2/			
		NO_3^-	/5,0/			
Glutamic -acid		glycine	/2,0/			
		alanine	/2,5/			
		valine	$/1,3.10^{2}/$			
		leucine	$/7,9.10^{2}/$			
		isoleucine	$/5,0.10^{2}/$			
		serine	$2,5.10^{-1}$			
		histidine	/1,26/			
		methionine	$/2,0.10^{2}/$			
		aspartic acid	$7,9.10^{-1}$			
		tyrosine	/5,0/			
		phenyl-alanine	$/2,5.10^{3}/$			
		tryptophane	$/2,5.10^{3}/$			
		HPO_4^{2-}	/2,0/			
		CO_3^{2-}	/1,0/			
		SO_4^{2-}	/2,5/			
		Cl^-	$/10^{3}/$			
		NO_3^-	$/10^{4}/$			

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