Table 13: Ag^+-Selective Electrodes

ionophore	membrane composition	$\lg K_{Ag^+,B^{n+}}$	method	primary ion conc. (M)	interfering ion conc. (M)	slope (mV/ decade)	linear range (M)	remarks	ref.
Ag^+-1	**Ag^+-1** (w = 2.8 %), dipicrylamine sodium salt (x_i = 16 %), PVC (w = 27.6 %), DOP (w = 69.1 %)	Li^+, –4.3; Na^+, –4.0; K^+, –4.5; NH_4^+, –4.3; Mg^{2+}, –4.9; Ca^{2+}, –4.7; Fe^{3+}, –3.7; Ni^{2+}, –4.8; Cu^{2+}, –4.2; Zn^{2+}, –4.1; Cd^{2+}, –4.6; Hg^{2+}, –1.8; Tl^+, –3.4	FIM	–	–	59	10^{-5}–10^{-2}	$t_{resp} < 30$ s; $\tau > 90$ d; r.o.o.g.	[1]
	Ag^+-1 (Ag^+-complex, w = 3.3 %), dipicrylamine sodium salt (x_i = 10 %), PVC (w = 27.5 %), DOP (w = 68.9 %)	Li^+, –4.7; Na^+, –4.9; K^+, –4.6; NH_4^+, –4.6; H^+, –3.6; Mg^{2+}, –4.8; Ca^{2+}, –4.6; Fe^{3+}, –3.8; Co^{2+}, –4.1; Ni^{2+}, –4.0; Cu^{2+}, –3.9; Zn^{2+}, –3.5; Cd^{2+}, –4.2; Hg^{2+}, –2.0; Tl^+, –3.3; Pb^{2+}, –3.7	FIM	–	Hg^{2+}, 5×10^{-5}; H^+ and heavy metal ions, 0.05; other ions, 0.5	N	10^{-5}–10^{-2}	25 °C; r.o.o.g.	[2]
	Ag^+-1 (Ag^+-complex, w = 3.3 %), dipicrylamine sodium salt (x_i = 10 %), PVC (w = 27.5 %), BEHS (w = 68.9 %)	Li^+, –4.4; Na^+, –4.4; K^+, –4.7; NH_4^+, –4.2; H^+, –3.2; Mg^{2+}, –4.8; Ca^{2+}, –4.8; Fe^{3+}, –3.8; Co^{2+}, –4.2; Ni^{2+}, –3.5; Cu^{2+}, –4.2; Zn^{2+}, –3.5; Cd^{2+}, –4.4; Hg^{2+}, –2.1; Tl^+, –3.4; Pb^{2+}, –4.2	FIM	–	Hg^{2+}, 5×10^{-5}; H^+ and heavy metal ions, 0.05; other ions, 0.5	59	10^{-5}–10^{-2}	25 °C; $t_{resp} < 30$ s; r.o.o.g.	[3]
	Ag^+-1 (Ag^+-complex, w = 3.3 %), dipicrylamine sodium salt (x_i = 10 %), PVC (w = 27.5 %), DOP (w = 68.9 %)	Li^+, –4.7; Na^+, –4.9; K^+, –4.6; NH_4^+, –4.6; H^+, –3.6; Mg^{2+}, –4.8; Ca^{2+}, –4.7; Fe^{3+}, –3.8; Co^{2+}, –4.1; Ni^{2+}, –4.0; Cu^{2+}, –3.9; Zn^{2+}, –3.5; Cd^{2+}, –4.2; Hg^{2+}, –2.1; Tl^+, –3.3; Pb^{2+}, –3.7	FIM	–	Hg^{2+}, 5×10^{-5}; H^+ and heavy metal ions, 0.05; other ions, 0.5	59	10^{-5}–10^{-2}	25 °C; $t_{resp} < 30$ s; r.o.o.g.	[3]
	Ag^+-1 (Ag^+-complex, w = 3.3 %), dipicrylamine sodium salt (x_i = 10 %), PVC (w = 27.5 %), oNPOE (w = 68.9 %)	Li^+, –4.4; Na^+, –4.8; K^+, –4.2; NH_4^+, –4.5; H^+, –3.2; Mg^{2+}, –4.7; Ca^{2+}, –4.7; Fe^{3+}, –3.8; Co^{2+}, –4.0; Ni^{2+}, –3.8; Cu^{2+}, –3.9; Zn^{2+}, –3.3;	FIM	–	Hg^{2+}, 5×10^{-5}; H^+ and heavy metal ions, 0.05; other ions,	59	10^{-5}–10^{-2}	25 °C; $t_{resp} < 30$ s; r.o.o.g.	[3]

Table 13: Ag^+-Selective Electrodes (*Continued*)

ionophore	membrane composition	$\lg K_{Ag^+,B^{n+}}$	method	primary ion conc. (M)	interfering ion conc. (M)	slope (mV/ decade)	linear range (M)	remarks	ref.
		Cd^{2+}, –4.2; Hg^{2+}, –2.5; Tl^+, –3.4; Pb^{2+}, –4.1			0.5				
	Ag^+-1 (Ag^+-complex, w = 3.3 %), dipicrylamine sodium salt (x_i = 10 %), PVC (w = 27.5 %), TEHP (w = 68.9 %)	Li^+, –3.5; Na^+, –3.9; K^+, –4.3; NH_4^+, –3.5; H^+, –1.6; Mg^{2+}, –4.3; Ca^{2+}, –4.0; Fe^{3+}, –2.8; Co^{2+}, –4.2; Ni^{2+}, –3.3; Cu^{2+}, –3.9; Zn^{2+}, –3.5; Cd^{2+}, –4.0; Hg^{2+}, –2.4; Tl^+, –3.1; Pb^{2+}, –4.0	FIM	–	Hg^{2+}, 5×10^{-5}; H^+ and heavy metal ions, 0.05; other ions, 0.5	59	10^{-5}–10^{-2}	25 °C; t_{resp} < 30 s; r.o.o.g.	[3]
Ag^+-2	**Ag^+-2** (Ag^+-complex, w = 3.3 %), dipicrylamine sodium salt (x_i = 10 %), PVC (w = 27.5 %), DOP (w = 68.9 %)	Li^+, –4.8; Na^+, –5.1; K^+, –4.7; NH_4^+, –4.9; H^+, –3.6; Mg^{2+}, –4.9; Ca^{2+}, –4.6; Fe^{3+}, –3.9; Co^{2+}, –4.1; Ni^{2+}, –4.2; Cu^{2+}, –4.2; Zn^{2+}, –3.3; Cd^{2+}, –4.4; Hg^{2+}, –2.2; Tl^+, –3.9; Pb^{2+}, –3.8	FIM	–	Hg^{2+}, 5×10^{-5}; H^+ and heavy metal ions, 0.05; other ions, 0.5	N	10^{-5}–10^{-2}	25 °C; r.o.o.g.	[2]
Ag^+-3	**Ag^+-3** (Ag^+-complex, w = 3.3 %), dipicrylamine sodium salt (x_i = 10 %), PVC (w = 27.5 %), DOP (w = 68.9 %)	Li^+, –4.8; Na^+, –5.0; K^+, –4.8; NH_4^+, –4.8; H^+, –3.2; Mg^{2+}, –4.7; Ca^{2+}, –4.8; Fe^{3+}, –3.6; Co^{2+}, –4.4; Ni^{2+}, –4.2; Cu^{2+}, –4.3; Zn^{2+}, –3.2; Cd^{2+}, –4.4; Hg^{2+}, –1.5; Tl^+, –3.8; Pb^{2+}, –3.9	FIM	–	Hg^{2+}, 5×10^{-5}; H^+ and heavy metal ions, 0.05; other ions, 0.5	N	10^{-5}–10^{-2}	25 °C; r.o.o.g.	[2]
Ag^+-4	**Ag^+-4** (Ag^+-complex, w = 3.3 %), dipicrylamine sodium salt (x_i = 10 %), PVC (w = 27.5 %), DOP (w = 68.9 %)	Li^+, –4.8; Na^+, –4.9; K^+, –4.8; NH_4^+, –4.7; H^+, –3.5; Mg^{2+}, –4.9; Ca^{2+}, –4.6; Fe^{3+}, –3.7; Co^{2+}, –4.1; Ni^{2+}, –4.0; Cu^{2+}, –4.0; Zn^{2+}, –3.3; Cd^{2+}, –4.4; Hg^{2+}, –1.8; Tl^+, –3.6; Pb^{2+}, –3.8	FIM	–	Hg^{2+}, 5×10^{-5}; H^+ and heavy metal ions, 0.05; other ions, 0.5	N	10^{-5}–10^{-2}	25 °C; r.o.o.g.	[2]
Ag^+-5	**Ag^+-5** (Ag^+-complex, w = 3.3 %), dipicrylamine sodium salt	Li^+, –5.0; Na^+, –4.7; K^+, –4.9; NH_4^+, –4.5;	FIM	–	Hg^{2+}, 5×10^{-5};	N	10^{-5}–10^{-2}	25 °C; r.o.o.g.	[2]

continues on next page

Table 13: Ag^+-Selective Electrodes (*Continued*)

ionophore	membrane composition	$\lg K_{Ag^+,B^{n+}}$	method	primary ion conc. (M)	interfering ion conc. (M)	slope (mV/ decade)	linear range (M)	remarks	ref.
	(x_i = 10 %), PVC (w = 27.5 %), DOP (w = 68.9 %)	H^+, –3.4; Mg^{2+}, –4.8; Ca^{2+}, –4.6; Fe^{3+}, –3.7; Co^{2+}, –4.1; Ni^{2+}, –4.1; Cu^{2+}, –4.1; Zn^{2+}, –3.4; Cd^{2+}, –4.6; Hg^{2+}, –1.6; Tl^+, –3.6; Pb^{2+}, –3.8			H^+ and heavy metal ions, 0.05; other ions, 0.5				
Ag^+-6	**Ag^+-6** (w = 7 %), DOP (w = 31 %), PVC (w = 62 %)	Na^+, –4.89; K^+, –4.77; Mg^{2+}, –5.31; Ca^{2+}, –4.96; Sr^{2+}, –5.00; Co^{2+}, –5.60; Ni^{2+}, –4.35; Cu^{2+}, –4.89; Zn^{2+}, –5.57; Cd^{2+}, –5.41; Hg^{2+}, –2.30; Pb^{2+}, –4.92	FIM	–	Hg^{2+}, 10^{-5}; other ions, 0.1	59	10^{-6}–10^{-1}	25.0 ± 0.1 °C; t_{resp} < 10 s; $c_{dl} = 3 \times 10^{-7}$ M; τ > 120 d	[4]
		Na^+, –4.89; K^+, –4.77; Mg^{2+}, –5.31; Ca^{2+}, –4.96; Sr^{2+}, –5.00; Co^{2+}, –5.60; Ni^{2+}, –5.74; Cu^{2+}, –5.10; Zn^{2+}, –5.57; Cd^{2+}, –4.41; Hg^{2+}, –2.30; Tl^+, –4.89; Pb^{2+}, –4.92	FIM	–	–	59	10^{-7}–10^{-2}	25.0 ± 0.1 °C; t_{resp} < 5 s; $c_{dl} = 3.0 \times 10^{-7}$ M; τ > 390 d; 2.5 < pH < 8.5	[5]
Ag^+-7	**Ag^+-7** (w = 7 %), DOP (w = 31 %), PVC (w = 62 %)	Na^+, –4.89; K^+, –4.24; Mg^{2+}, –5.26; Ca^{2+}, –4.74; Sr^{2+}, –4.80; Co^{2+}, –4.82; Ni^{2+}, –5.01; Cu^{2+}, –4.51; Zn^{2+}, –5.92; Cd^{2+}, –4.26; Hg^{2+}, –2.10; Tl^+, –3.85; Pb^{2+}, –5.10	FIM	–	–	59	10^{-7}–10^{-2}	25.0 ± 0.1 °C; t_{resp} < 10 s; $c_{dl} = 1.4 \times 10^{-6}$ M; τ > 240 d; 2.5 < pH < 8.3	[5]
Ag^+-8	**Ag^+-8** (w = 7 %), DOP (w = 31 %), PVC (w = 62 %)	Na^+, –5.13; K^+, –4.92; Mg^{2+}, –5.36; Ca^{2+}, –5.44; Sr^{2+}, –5.34; Co^{2+}, –4.85; Ni^{2+}, –5.31; Cu^{2+}, –5.05; Zn^{2+}, –5.41; Cd^{2+}, –5.03; Hg^{2+}, –2.64; Tl^+, –4.35; Pb^{2+}, –5.20	FIM	–	–	56	10^{-7}–10^{-2}	25.0 ± 0.1 °C; t_{resp} < 5 s; $c_{dl} = 6.7 \times 10^{-7}$ M; τ > 270 d; 1.8 < pH < 8.5	[5]
	Ag^+-8 (w = 7 %), DOP (w = 62 %), PVC (w = 31 %)	Na^+, –5.1; Ca^{2+}, –5.4; Co^{2+}, –4.9; Ni^{2+}, –5.3; Cu^{2+}, –5.0; Zn^{2+}, –5.4; Cd^{2+}, –5.0; Pb^{2+}, –5.2	FIM	–	0.1	56	–	t_{resp} < 5 s; $c_{dl} = 6.7 \times 10^{-7}$ M; τ > 270 d; 1.8 < pH < 8.5	[6]

Table 13: Ag^+-Selective Electrodes (*Continued*)

ionophore	membrane composition	$\lg K_{Ag^+,B^{n+}}$	method	primary ion conc. (M)	interfering ion conc. (M)	slope (mV/ decade)	linear range (M)	remarks	ref.
Ag^+-9	**Ag^+-9** (w = 0.66 %), KTpClPB (x_i = 72 %), oNPOE (w = 65.84 %), PVC (w = 33.33 %)	Na^+, +0.06; K^+, –1.95; Co^{2+}, –3.10; Ni^{2+}, –3.72; Cu^{2+}, –3.38; Hg^{2+}, +0.39; Pb^{2+}, –0.55	SSM	0.1	0.1	38.26	$10^{-3.8}$–$10^{-1.8}$	25 °C; $c_{dl} = 10^{-3.8}$ –10^{-4} M	[7, 8]
Ag^+-10	**Ag^+-10** (w = 0.66 %), KTpClPB (x_i = 61 %), oNPOE (w = 65.84 %), PVC (w = 33.33 %)	Na^+, +0.27; K^+, –1.97; Co^{2+}, –2.84; Ni^{2+}, –3.25; Cu^{2+}, –2.80; Hg^{2+}, +1.65; Pb^{2+}, –1.68	SSM	0.1	0.1	45.67	$10^{-3.8}$–$10^{-1.0}$	25 °C; $c_{dl} = 10^{-3.8}$ –10^{-4} M;	[7, 8]
Ag^+-11	**Ag^+-11** (w = 0.66 %), KTpClPB (x_i = 55 %), oNPOE (w = 65.84 %), PVC (w = 33.33 %)	Na^+, +0.73; K^+, –2.29; Co^{2+}, –3.58; Ni^{2+}, –3.36; Cu^{2+}, –3.67; Cd^{2+}, –3.29; Hg^{2+}, +0.62; Pb^{2+}, –3.19	SSM	0.1	0.1	47.64	$10^{-4.0}$–$10^{-1.0}$	25 °C; $c_{dl} = 10^{-3.8}$ –10^{-4} M;	[7, 8]
Ag^+-12	**Ag^+-12** (w = 0.66 %), KTpClPB (x_i = 61 %), oNPOE (w = 65.84 %), PVC (w = 33.33 %)	Na^+, –1.16; K^+, –2.01; Co^{2+}, –3.08; Ni^{2+}, –3.08; Cu^{2+}, –3.3; Cd^{2+}, –2.57; Hg^{2+}, +1.93; Pb^{2+}, –1.81	SSM	0.1	0.1	50.01	$10^{-4.0}$–$10^{-1.0}$	25 °C; $c_{dl} = 10^{-4}$ M; t_{resp} = 3 s	[7, 8]
		Na^+, –1.21; K^+, –2.14; Co^{2+}, –3.02; Ni^{2+}, –3.02; Cu^{2+}, –2.59; Hg^{2+}, +1.79; Pb^{2+}, –1.86	SSM	0.1	0.1	51.74	–	25 °C; $c_{dl} = 10^{-4}$ M; t_{resp} = 2 s; on glassy carbon	[7]
Ag^+-13	**Ag^+-13** (w = 2 %), KTpClPB (x_i = 10 %), oNPOE (w = 65 %), PVC (w = 33 %)	K^+, –2.2; Ca^{2+}, –3.5; Cu^{2+}, –3.2; Cd^{2+}, –3.2; Pb^{2+}, –3.2	FIM	–	0.01	–		CHEMFET; r.o.o.g.	[9]
	Ag^+-13 (w = 2 %), KTpClPB (x_i = 50 %), oNPOE (w = 64 %), PVC (w = 32 %)	K^+, –2.6; Ca^{2+}, –3.4; Cu^{2+}, –3.9; Cd^{2+}, –3.7; Hg^{2+}, –1.0; Pb^{2+}, –3.6	FIM	–	0.01	–	–	CHEMFET; r.o.o.g.	[9]
Ag^+-14	**Ag^+-14** (w = 2 %), oNPOE (w = 65 %), PVC (w = 33 %)	K^+, –2.0; Ca^{2+}, –2.8; Cu^{2+}, –3.2; Cd^{2+}, –3.1; Pb^{2+}, –3.0	FIM	–	0.01	–	–	CHEMFET; r.o.o.g.	[9]
	Ag^+-14 (w = 2 %), KTpClPB (x_i = 10 %), oNPOE (w = 65 %), PVC (w = 33 %)	K^+, –2.3; Ca^{2+}, –4.6; Cu^{2+}, –3.6; Cd^{2+}, –3.6; Pb^{2+}, –3.8	FIM	–	0.01	–	–	CHEMFET; r.o.o.g.	[9]
	Ag^+-14 (w = 2 %), KTpClPB (x_i = 50 %),	K^+, –2.9; Ca^{2+}, –4.4; Cu^{2+}, –4.1; Cd^{2+}, –4.5;	FIM	–	0.01	–	–	CHEMFET; r.o.o.g.	[9]

continues on next page

Table 13: Ag^+-Selective Electrodes (*Continued*)

ionophore	membrane composition	$\lg K_{Ag^+,B^{n+}}$	method	primary ion conc. (M)	interfering ion conc. (M)	slope (mV/ decade)	linear range (M)	remarks	ref.
	oNPOE (w = 64 %), PVC (w = 32 %)	Pb^{2+}, –4.5							
	Ag^+-14 (w = 1.9 %), KTpClPB (x_i = 100 %), oNPOE (w = 63 %), PVC (w = 32 %)	K^+, –3.0; Ca^{2+}, –4.3; Cu^{2+}, –4.0; Cd^{2+}, –4.3; Pb^{2+}, –4.3	FIM	–	0.01	–	–	CHEMFET; r.o.o.g.	[9]
Ag^+-15	**Ag^+-15** (w = 2 %), KTpClPB (x_i = 50 %), oNPOE (w = 64 %), PVC (w = 32 %)	K^+, –3.2; Ca^{2+}, –4.5; Cu^{2+}, –4.8; Cd^{2+}, –4.8; Pb^{2+}, –4.7	FIM	–	0.01	–	–	CHEMFET; r.o.o.g.	[9]
Ag^+-16	**Ag^+-16** (w = 2 %), KTpClPB (x_i = 50 %), oNPOE (w = 64 %), PVC (w = 32 %)	K^+, –2.8; Ca^{2+}, –4.1 (–4.2) Cu^{2+}, –4.1; Cd^{2+}, –4.1 (–4.2) Pb^{2+}, –4.1	FIM	–	0.01	–	–	CHEMFET; r.o.o.g.	[9]
Ag^+-17	**Ag^+-17** (w = 2 %), KTpClPB (x_i = 10 %), oNPOE (w = 65 %), PVC (w = 33 %)	K^+, –2.9; Ca^{2+}, –4.1 Cu^{2+}, –4.3; Cd^{2+}, –4.0; Hg^{2+}, –1.8; Pb^{2+}, –4.2	FIM	–	0.01	–	–	CHEMFET; r.o.o.g.	[9]
	Ag^+-17 (w = 2 %), KTpClPB (x_i = 50 %), oNPOE (w = 63 %), PVC (w = 33 %)	K^+, –3.1; Ca^{2+}, –4.1 Cu^{2+}, –4.3; Cd^{2+}, –4.1; Hg^{2+}, –1.3; Pb^{2+}, –4.2	FIM	–	0.01	–	–	CHEMFET; r.o.o.g.	[9]
Ag^+-18	**Ag^+-18** (w = 2 %), KTpClPB (x_i = 50 %), oNPOE (w = 64 %), PVC (w = 33 %)	K^+, –3.0; Ca^{2+}, –4.0 Cu^{2+}, –4.1; Cd^{2+}, –4.3; Pb^{2+}, –4.3	FIM	–	0.01	–	–	CHEMFET; r.o.o.g.	[9]
Ag^+-19	**Ag^+-19** (w = 2 %), KTpClPB (x_i = 50 %), oNPOE (w = 64 %), PVC (w = 32 %)	K^+, –2.8; Ca^{2+}, –3.3 Cu^{2+}, –3.9; Cd^{2+}, –3.8; Pb^{2+}, –4.1	FIM	–	0.01	–	–	CHEMFET; r.o.o.g.	[9]
Ag^+-20	**Ag^+-20** (w =7 %), DOP (w = 62 %), PVC (w = 31 %)	Na^+, –4.721; K^+, –4.770; Mg^{2+}, –5.553; Ca^{2+}, –5.094; Sr^{2+}, –5.387; Co^{2+}, –5.060; Ni^{2+}, –5.602; Cu^{2+}, –4.770; Zn^{2+}, –5.114; Cd^{2+}, –5.155; Hg^{2+}, –3.013; Tl^+, –4.959; Pb^{2+}, –5.056	FIM	–	–	59.1 ± 0.7	10^{-7}–10^{-2}	25.0 ± 0.1 °C; $t_{resp} < 5$ s; $c_{dl} = 5.60 \times 10^{-7}$ M; $\tau > 270$ d	[10]

Table 13: Ag^+-Selective Electrodes (*Continued*)

ionophore	membrane composition	$\lg K_{Ag^+,B^{n+}}$	method	primary ion conc. (M)	interfering ion conc. (M)	slope (mV/ decade)	linear range (M)	remarks	ref.
Ag^+-21	**Ag^+-21** (w = 7 %), DOP (w = 62 %), PVC (w = 31 %)	Na^+, –4.833; K^+, –4.983; Mg^{2+}, –5.458; Ca^{2+}, –5.344; Sr^{2+}, –5.389; Co^{2+}, –5.259; Ni^{2+}, –5.658; Cu^{2+}, –5.055; Zn^{2+}, –5.412; Cd^{2+}, –5.556; Hg^{2+}, –2.983; Tl^+, –4.845; Pb^{2+}, –5.453	FIM	–	–	59.5 ± 0.1	10^{-7}–10^{-2}	25.0 ± 0.1 °C; t_{resp} < 4 s; $c_{dl} = 7 \times 10^{-7}$ M; τ > 210 d	[10]
Ag^+-22	**Ag^+-22** (w = 7 %), DOP (w = 62 %), PVC (w = 31 %)	Na^+, –4.921; K^+, –4.886; Mg^{2+}, –5.260; Ca^{2+}, –5.347; Co^{2+}, –5.009; Ni^{2+}, –5.367; Cu^{2+}, –4.959; Zn^{2+}, –5.367; Cd^{2+}, –5.456; Hg^{2+}, –2.745; Tl^+, –4.638; Pb^{2+}, –4.237	FIM	–	–	60.5 ± 0.5	10^{-7}–10^{-2}	25.0 ± 0.1 °C; t_{resp} < 5 s; $c_{dl} = 1.26 \times 10^{-6}$ M; τ > 210 d	[10]
Ag^+-23	**Ag^+-23** (w = 7 %), DOP (w = 62 %), PVC (w = 31 %)	Na^+, –4.585; K^+, –4.319; Mg^{2+}, –5.161; Ca^{2+}, –5.041; Co^{2+}, –4.854; Ni^{2+}, –5.409; Cu^{2+}, –5.056; Zn^{2+}, –4.770; Cd^{2+}, –4.921; Hg^{2+}, –2.796; Tl^+, –4.244; Pb^{2+}, –5.004	FIM	–	–	57.9 ± 0.5	10^{-7}–10^{-2}	25.0 ± 0.1 °C; t_{resp} < 10 s; $c_{dl} = 1.58 \times 10^{-6}$ M; τ > 120 d	[10]
Ag^+-24	**Ag^+-24** (w = 1 %), KTpClPB (x_i = 75 %), BBPA (w = 65–66 %), PVC (w = 33 %)	Li^+, –5.0; Na^+, –5.0; K^+, –4.8; NH_4^+, –5.0; Mg^{2+}, –5.4; Ca^{2+}, –5.4; Ba^{2+}, –5.4; Co^{2+}, –5.4; Ni^{2+}, –5.4; Cu^{2+}, –5.2; Zn^{2+}, –5.4; Cd^{2+}, –5.2; Hg^{2+}, –2.2 (pH 2); Pb^{2+}, –4.7	FIM	–	0.1 Hg^{2+}, 10^{-4}	54.7	< 10^{-3}	20 °C; t_{95} < 15 s; $c_{dl} = 10^{-5.5}$ M; pH > 3; drift of –0.02 mV/day	[11]
Ag^+-25	**Ag^+-25** (w = 1 %), KTpClPB (x_i = 75 %), oNPOE (w = 65–66 %), PVC (w = 33 %)	Li^+, –4.9; Na^+, –4.9; K^+, –4.9; NH_4^+, –5.2; Mg^{2+}, –5.5; Ca^{2+}, –5.5; Ba^{2+}, –5.7; Co^{2+}, –5.5; Ni^{2+}, –5.7; Cu^{2+}, –5.3; Zn^{2+}, –5.5; Cd^{2+}, –4.6; Hg^{2+}, –1.4 (pH 2); Pb^{2+}, –4.6	FIM	–	0.1 Hg^{2+}, 10^{-4}	53.7	< $10^{-2.5}$	20 °C; t_{95} < 10 s; $c_{dl} = 10^{-6.0}$ M; pH > 2.5; drift of –1.0 mV/day	[11]

continues on next page

Table 13: Ag^+-Selective Electrodes (*Continued*)

ionophore	membrane composition	$\lg K_{Ag^+,B^{n+}}$	method	primary ion conc. (M)	interfering ion conc. (M)	slope (mV/ decade)	linear range (M)	remarks	ref.
	Ag^+-25 (w = 1 %), KTpClPB (x_i = 75 %), BBPA (w = 65–66 %), PVC (w = 33 %)	Li^+, –5.3; Na^+, –5.0; K^+, –4.6; NH_4^+, –5.3; Mg^{2+}, –5.5; Ca^{2+}, –5.5; Ba^{2+}, –5.5; Co^{2+}, –5.5; Ni^{2+}, –5.0; Cu^{2+}, –5.3; Zn^{2+}, –5.5; Cd^{2+}, –5.3; Hg^{2+}, –2.5 (pH 2); Pb^{2+}, –4.6	FIM	–	0.1 Hg^{2+}, 10^{-4}	56.7	$< 10^{-1.0}$	20 °C; $t_{95} < 10$ s; $c_{dl} = 10^{-5.4}$ M; pH > 2.5; drift of –0.36 mV/day	[11]
	Ag^+-25 (w = 1.9 %), KTFPB (x_i = 50 %), polysiloxane functionalized with 10 % 3-cyanopropyl group (w = 96.9 %)	K^+, –4.7; H^+, –2.5; Ca^{2+}, –4.3; Cu^{2+}, –4.4; Cd^{2+}, –4.0; Hg^{2+}, –2.4	FIM	–	0.1 K^+, 1 H^+, $10^{-2.5}$	–	–	CHEMFET	[12]
	Ag^+-25 (w = 1.9 %), KTFPB (x_i = 50 %), polysiloxane functionalized with 10 % 3-(*p*-acetylphenoxy)propyl group (w = 96.9 %), dimethoxy-2-phenyl-acetophenone (w = 0.5 %)	K^+, –3.8; H^+, –2.5; Ca^{2+}, –4.2; Cu^{2+}, –4.4; Cd^{2+}, –4.0; Hg^{2+}, –2.0	FIM	–	0.1 K^+, 1 H^+, $10^{-2.5}$ Hg^{2+}, 10^{-4}	–	–	CHEMFET	[12]
	Ag^+-25 (w = 1.9 %), KTFPB (x_i = 50 %), polysiloxane functionalized with 10 % 3-acetoxypropyl group (w = 96.9 %), dimethoxy-2-phenylacetophenone (w = 0.5 %)	K^+, –5.3; H^+, –2.3; Ca^{2+}, –3.9; Cu^{2+}, –4.4; Cd^{2+}, –3.9; Hg^{2+}, –2.1 Hg^{2+}, 10^{-4}	FIM	–	0.1 K^+, 1 H^+, $10^{-2.5}$	–	–	CHEMFET	[12]
Ag^+-26	**Ag^+-26** (w = 7 %), DOP (w = 62 %), PVC (w = 31 %)	Na^+, –4.8; Ca^{2+}, –5.4; Co^{2+}, –5.6; Ni^{2+}, –5.5; Cu^{2+}, –5.0; Zn^{2+}, –5.7; Cd^{2+}, –5.6; Pb^{2+}, –5.4	FIM	–	0.1	62	–	$t_{resp} < 10$ s; $c_{dl} = 6.6 \times 10^{-7}$ M; $\tau > 270$ d	[6]
Ag^+-27	**Ag^+-27** (w = 7 %), DOP (w = 62 %), PVC (w = 31 %)	Na^+, –4.9; Ca^{2+}, –5.4; Co^{2+}, –5.9; Ni^{2+}, –5.6; Cu^{2+}, –4.2; Zn^{2+}, –5.5; Cd^{2+}, –5.6; Pb^{2+}, –6.0	FIM	–	0.1	62	–	$t_{resp} < 5$ s; $c_{dl} = 4.0 \times 10^{-7}$ M; $\tau > 270$ d	[6]
Ag^+-28	**Ag^+-28** (w = 7 %), DOP (w = 62 %), PVC (w = 31 %)	Na^+, –4.9; Ca^{2+}, –5.3; Co^{2+}, –5.9; Ni^{2+}, –5.5; Cu^{2+}, –4.2; Zn^{2+}, –5.4; Cd^{2+}, –5.5; Pb^{2+}, –5.8	FIM	–	0.1	62	–	$t_{resp} < 6$ s; $c_{dl} = 4.6 \times 10^{-7}$ M; $\tau > 270$ d	[6]
		Na^+, –4.6; Ca^{2+}, –4.5; Hg^{2+}, –1.9; Tl^+, –4.5;	FIM	–	0.1; Hg^{2+}, 0.001	56–62	–	CHEMFET; $\tau > 42$ d	[13]

Table 13: Ag^+-Selective Electrodes (*Continued*)

ionophore	membrane composition	$\lg K_{Ag^+,B^{n+}}$	method	primary ion conc. (M)	interfering ion conc. (M)	slope (mV/ decade)	linear range (M)	remarks	ref.
Ag^+-29	**Ag^+-29** (w = 1 %), KTpClPB (x_i = 20 %), DBS (w = 66 %), PVC (w = 33 %)	Li^+, –2.6; Na^+, –2.5; K^+, –2.1; Rb^+, –2.0; Cs^+, –1.9; NH_4^+, –2.2; H^+, –2.1; Mg^{2+}, –4.8; Ca^{2+}, –4.4; Sr^{2+}, –4.2; Ba^{2+}, –4.2; Al^{3+}, –3.5; Cr^{3+}, –3.6; Mn^{2+}, –3.9; Fe^{3+}, –3.4; Co^{2+}, –4.1; Ni^{2+}, –4.2; Cu^{2+}, –3.2; Zn^{2+}, –4.4; Cd^{2+}, –3.6; Tl^+, –0.9; Pb^{2+}, –3.2	SSM	0.01	0.01	56–59	–	r.o.o.g; t_{resp} of a few sec; $c_{dl} = 10^{-4.5}$ $-10^{-5.3}$ M; .	[14]
	Ag^+-29 (w = 1 %), KTpClPB (x_i = 40 %), DBS (w = 65 %), PVC (w = 33 %)	Li^+, –3.1; Na^+, –2.9; K^+, –2.7; Rb^+, –2.6; Cs^+, –2.5; NH_4^+, –2.7; H^+, –1.8; Mg^{2+}, –4.4; Ca^{2+}, –3.9; Sr^{2+}, –3.8; Ba^{2+}, –4.0; Al^{3+}, –3.1; Cr^{3+}, –3.3; Mn^{2+}, –3.5; Fe^{3+}, –3.3; Co^{2+}, –4.0; Ni^{2+}, –3.8; Cu^{2+}, –3.0; Zn^{2+}, –4.2; Cd^{2+}, –3.4; Tl^+, –1.2; Pb^{2+}, –3.1	SSM	0.01	0.01	56–59	–	r.o.o.g.; t_{resp} of a few sec; $c_{dl} = 10^{-4.5}$ $-10^{-5.3}$ M	[14]
Ag^+-30	**Ag^+-30** (w = 2 %), KTpClPB (x_i = 14 %), oNPOE (w = 63.5 %), PVC (w = 34 %)	Li^+, –2.5; Na^+, –2.2; K^+, –2.5; NH_4^+, –2.5; Mg^{2+}, –2.5; Ca^{2+}, –2.5; Sr^{2+}, –2.7; Ba^{2+}, –2.7; Mn^{2+}, –2.5; Fe^{3+}, –2.7; Co^{2+}, –2.5; Ni^{2+}, –2.5; Cu^{2+}, –2.7; Zn^{2+}, –2.8; Cd^{2+}, –2.5; Pb^{2+}, –2.7	MSM	0.001	0.1	58.0	10^{-5}–10^{-1}	r.o.o.g.; t_{resp} < 10 s	[15]
Ag^+-31	**Ag^+-31** (w = 2 %), KTpClPB (x_i = 14 %), oNPOE (w = 63.5 %), PVC (w = 34 %)	Li^+, –3.0; Na^+, –3.0; K^+, –3.0; NH_4^+, –3.5; Mg^{2+}, –4.0; Sr^{2+}, –4.0; Ba^{2+}, –4.0; Al^{3+}, –4.7; Cr^{3+}, –4.0; Ni^{2+}, –4.0; Cu^{2+}, –4.0; Zn^{2+}, –4.0; Cd^{2+}, –5.0	MSM	0.001	0.1	55.0	10^{-4}–10^{-2}	r.o.o.g.	[15]

continues on next page

Table 13: Ag^+-Selective Electrodes (*Continued*)

ionophore	membrane composition	$\lg K_{Ag^+,B^{n+}}$	method	primary ion conc. (M)	interfering ion conc. (M)	slope (mV/ decade)	linear range (M)	remarks	ref.
Ag^+-32	**Ag^+-32** (w = 2 %), KTpClPB (x_i = 17 %), oNPOE (w = 63.5 %), PVC (w = 34 %)	Li^+, –2.7; Na^+, –2.7; K^+, –2.7; NH_4^+, –3.0; Mg^{2+}, –2.7; Sr^{2+}, –2.7; Ba^{2+}, –3.0; Mn^{2+}, –2.7; Fe^{3+}, –3.4; Co^{2+}, –2.7; Ni^{2+}, –2.7; Cu^{2+}, –2.5; Zn^{2+}, –3.2; Cd^{2+}, –2.7; Pb^{2+}, –2.9	MSM	0.001	0.1	49	10^{-4}–10^{-1}	r.o.o.g.	[15]
Ag^+-33	**Ag^+-33** (w = 1 %), KTpClPB (x_i = 50 %), DOP (w = 65–66 %), PVC (w = 33 %)	K^+, –2.8; Ca^{2+}, –3.9; Cu^{2+}, –3.9; Cd^{2+}, –3.8; Hg^{2+}, –2.6; Pb^{2+}, –3.8	FIM	–	0.01 (pH 4, pH 3 for Hg^{2+})	–	–	r.o.o.g.; 20 °C	[16]
Ag^+-34	**Ag^+-34** (w = 1 %), KTpClPB (x_i = 50 %), DOP (w = 65–66 %), PVC (w = 33 %)	K^+, –2.8; Ca^{2+}, –4.3; Cu^{2+}, –3.9; Cd^{2+}, –3.8; Hg^{2+}, –2.4; Pb^{2+}, –3.9	FIM	–	0.01 (pH 4, pH 3 for Hg^{2+})	–	–	r.o.o.g.; 20 °C	[16]
Ag^+-35	**Ag^+-35** (w = 1 %), KTpClPB (x_i = 50 %), DOP (w = 65–66 %), PVC (w = 33 %)	K^+, –2.6; Ca^{2+}, –3.3; Cu^{2+}, –3.6; Cd^{2+}, –3.5; Hg^{2+}, –1.0; Pb^{2+}, –3.5	FIM	–	0.01 (pH 4, pH 3 for Hg^{2+})	–	–	r.o.o.g.; 20 °C	[16]
Ag^+-36	**Ag^+-36** (w = 1 %), KTpClPB (x_i = 75 %), oNPOE (w = 65–66 %), PVC (w = 33 %),	K^+, –5.4; Ca^{2+}, –6.0; Cu^{2+}, –6.3; Cd^{2+}, –6.6; Hg^{2+}, –2.5; Pb^{2+}, –6.0	SSM	–	0.01 (pH 4, pH 3 for Hg^{2+})	–	–	r.o.o.g.; t_{95} < 10 s; 20 °C	[16]
Ag^+-37	**Ag^+-37** (w = 1 %), KTpClPB (x_i = 75 %), oNPOE (w = 65–66 %), PVC (w = 33 %)	K^+, –3.6; Ca^{2+}, –4.5; Cu^{2+}, –4.3; Cd^{2+}, –4.5; Hg^{2+}, –1.9; Pb^{2+}, –4.0	SSM	–	0.01 (pH 4, pH 3 for Hg^{2+})	–	–	r.o.o.g.; 20 °C; 4 < pH < 8	[16]
Ag^+-38	**Ag^+-38** (w = 1 %), KTpClPB (x_i = 75 %), oNPOE (w = 65–66 %), PVC (w =33 %)	K^+, –3.0; Ca^{2+}, –3.8; Cu^{2+}, –3.8; Cd^{2+}, –3.2; Hg^{2+}, –2.0; Pb^{2+}, –3.5	SSM	–	0.01 (pH 4, pH 3 for Hg^{2+})	–	–	r.o.o.g.; 20 °C	[16]
Ag^+-39	**Ag^+-39** (w = 3 %), KTpClPB (x_i = 21 %), BBPA (w = 67 %), PVC (w = 29 %)	Li^+, +0.7; Na^+, –1.5; K^+, –2.1; Mg^{2+}, –5.7; Ca^{2+}, –4.6; Cr^{3+}, –5.4; Mn^{2+}, –5.1; Fe^{3+}, –5.2; Co^{2+}, –4.8; Cu^{2+}, –4.6; Zn^{2+}, –4.7; Cd^{2+}, –4.3; Hg^{2+}, –1.2	SSM	0.001	0.001	–	–	25 ± 0.5 °C; r.o.o.g.	[17]

Table 13: Ag^+-Selective Electrodes (*Continued*)

ionophore	membrane composition	$\lg K_{Ag^+,B^{n+}}$	method	primary ion conc. (M)	interfering ion conc. (M)	slope (mV/ decade)	linear range (M)	remarks	ref.
Ag^+-40	**Ag^+-40** (w = 3 %), KTpClPB (x_i = 22 %), BBPA (w = 67 %), PVC (w = 29 %)	Li^+, –3.6; Na^+, –3.8; K^+, –3.5; Mg^{2+}, –5.4; Ca^{2+}, –5.3; Cr^{3+}, –5.2; Mn^{2+}, –5.2; Fe^{3+}, –5.2; Co^{2+}, –5.5; Cu^{2+}, –4.9; Zn^{2+}, –5.4; Cd^{2+}, –5.1; Hg^{2+}, –2.1	SSM	0.001	0.001	–	–	25 ± 0.5 °C; r.o.o.g.	[17]
Ag^+-41	**Ag^+-41** (w = 3 %), KTpClPB (x_i = 22 %), BBPA (w = 67 %), PVC (w = 29 %)	Li^+, –4.0; Na^+, –4.4; K^+, –4.2; Mg^{2+}, –6.2; Ca^{2+}, –6.4; Cr^{3+}, –5.8; Mn^{2+}, –6.2; Fe^{3+}, –5.4; Co^{2+}, –6.4; Cu^{2+}, –5.6; Zn^{2+}, –6.2; Cd^{2+}, –5.9; Hg^{2+}, –1.5	SSM	0.001	0.001	N	10^{-6}–10^{-2}	25 ± 0.5 °C; r.o.o.g.; t_{95} < 8 s (10^{-2} –10^{-6} M); t_{resp} = 60 s (10^{-2} –10^{-6} M)	[17]
Ag^+-42	**Ag^+-42** (w = 3 %), KTpClPB (x_i = 23 %), BBPA (w = 67 %), PVC (w = 29 %)	Li^+, –9.1; Na^+, –9.0; K^+, –8.6; Cr^{3+}, –11.2; Mn^{2+}, –11.6; Fe^{3+}, –10.2; Co^{2+}, –11.5; Cu^{2+}, –9.6; Zn^{2+}, –11.2; Cd^{2+}, –11.1; Hg^{2+}, –1.8	SSM	0.001	0.001	–	–	25 ± 0.5 °C; r.o.o.g.; irreversible response to Ag^+	[17]
Ag^+-43	**Ag^+-43** (w = 3 %), KTpClPB (x_i = 23 %), BBPA (w = 67 %), PVC (w = 29 %)	Li^+, –2.9; Na^+, –2.9; K^+, –2.9; Mg^{2+}, –4.3; Ca^{2+}, –4.4; Cr^{3+}, –4.1; Mn^{2+}, –4.0; Fe^{3+}, –4.5; Co^{2+}, –4.2; Cu^{2+}, –4.1; Zn^{2+}, –4.2; Cd^{2+}, –4.3; Hg^{2+}, –1.3; Pb^{2+}, –4.2;	SSM	0.001	0.001	–	–	25 ± 0.5 °C; r.o.o.g.	[17]
Ag^+-44	**Ag^+-44** (w = 3 %), KTpClPB (x_i = 27 %), BBPA (w = 67 %), PVC (w = 29 %)	Li^+, –3.2; Na^+, –3.4; K^+, –3.4; Mg^{2+}, –5.1; Ca^{2+}, –4.9; Cr^{3+}, –4.5; Mn^{2+}, –5.3; Fe^{3+}, –5.2; Co^{2+}, –5.2; Cu^{2+}, –4.8; Zn^{2+}, –5.3; Cd^{2+}, –5.2; Hg^{2+}, –0.6; Pb^{2+}, –4.8;	SSM	0.001	0.001	–	–	25 ± 0.5 °C; r.o.o.g.	[17]
Ag^+-45	**Ag^+-45** (w = 3 %), KTpClPB (x_i = 28 %), BBPA (w = 67 %), PVC (w = 29 %)	Li^+, –1.8; Na^+, –1.9; K^+, –1.6; Rb^+, –1.6; Cs^+, –1.6; NH_4^+, –1.6; Mg^{2+}, –4.3; Ca^{2+}, –4.2;	SSM	0.001	0.001	–	–	25 ± 0.5 °C; r.o.o.g.	[17]

continues on next page

Table 13: Ag^+-Selective Electrodes (*Continued*)

ionophore	membrane composition	$\lg K_{Ag^+,B^{n+}}$	method	primary ion conc. (M)	interfering ion conc. (M)	slope (mV/ decade)	linear range (M)	remarks	ref.
		Cr^{3+}, –3.3; Mn^{2+}, –3.8; Fe^{3+}, –2.6; Co^{2+}, –3.9; Cu^{2+}, –3.5; Zn^{2+}, –4.0; Cd^{2+}, –3.9; Hg^{2+}, +0.1; Pb^{2+}, –2.8							
Ag^+-46	**Ag^+-46** (w = 3 %), KTpClPB (x_i = 29 %), BBPA (w = 67 %), PVC (w = 29 %)	Li^+, –1.2; Na^+, –1.3; K^+, –0.9; Rb^+, –0.9; Cs^+, –0.7; NH_4^+, –0.9; Mg^{2+}, –3.6; Ca^{2+}, –3.5; Cr^{3+}, –2.8; Mn^{2+}, –3.3; Fe^{3+}, –2.1; Co^{2+}, –3.3; Cu^{2+}, –2.9; Zn^{2+}, –3.5; Cd^{2+}, –3.4; Hg^{2+}, –0.5; Pb^{2+}, –2.2	SSM	0.001	0.001	–	–	25 ± 0.5 °C; r.o.o.g.	[17]
Ag^+-47	**Ag^+-47** (w = 3 %), KTpClPB (x_i = 22 %), BBPA (w = 67 %), PVC (w = 29 %)	Li^+, –2.1; Na^+, –2.3; K^+, –2.3; Rb^+, –2.3; Cs^+, –2.3; NH_4^+, –2.4; Mg^{2+}, –3.9; Ca^{2+}, –4.0; Cr^{3+}, –3.4; Mn^{2+}, –3.4; Fe^{3+}, –3.7; Co^{2+}, –3.6; Cu^{2+}, –3.4; Zn^{2+}, –3.6; Cd^{2+}, –3.6; Hg^{2+}, –2.1; Pb^{2+}, –3.4	SSM	0.001	0.001	–	–	25 ± 0.5 °C; r.o.o.g.	[17]
Ag^+-48	**Ag^+-48** (w = 3 %), KTpClPB (x_i = 23 %), BBPA (w = 67 %), PVC (w = 29 %)	Li^+, –1.5; Na^+, –1.6; K^+, –1.3; Rb^+, –1.3; Cs^+, –1.3; NH_4^+, –1.3; Mg^{2+}, –3.7; Ca^{2+}, –3.7; Cr^{3+}, –2.9; Mn^{2+}, –3.3; Fe^{3+}, –2.3; Co^{2+}, –3.5; Cu^{2+}, –3.1; Zn^{2+}, –3.6; Cd^{2+}, –3.2; Hg^{2+}, +0.7; Pb^{2+}, –1.9	SSM	0.001	0.001	–	–	25 ± 0.5 °C; r.o.o.g.	[17]
Ag^+-49	**Ag^+-49** (w = 3 %), KTpClPB (x_i = 24 %), BBPA (w = 67 %), PVC (w = 29 %)	Li^+, –0.8; Na^+, –0.8; K^+, –0.4; Rb^+, –0.4; Cs^+, –0.3; NH_4^+, –0.5; Mg^{2+}, –2.9; Ca^{2+}, –2.8; Cr^{3+}, –2.5; Mn^{2+}, –2.7; Fe^{3+}, –1.6; Co^{2+}, –2.8; Cu^{2+}, –2.4; Zn^{2+}, –2.8;	SSM	0.001	0.001	–	–	25 ± 0.5 °C; r.o.o.g.	[17]

Table 13: Ag^+-Selective Electrodes (*Continued*)

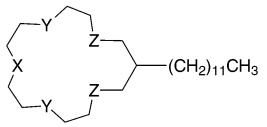
ionophore	membrane composition	$\lg K_{Ag^+,B^{n+}}$	method	primary ion conc. (M)	interfering ion conc. (M)	slope (mV/ decade)	linear range (M)	remarks	ref.
		Cd^{2+}, –2.7; Hg^{2+}, –0.8; Pb^{2+}, –1.7							
Ag^+-50	**Ag^+-50** (w = 3 %), KTpClPB (x_i = 17 %), BBPA (w = 67 %), PVC (w = 29 %)	Li^+, –2.7; Na^+, –3.0; K^+, –3.0; Rb^+, –3.1; Cs^+, –2.9; NH_4^+, –2.8; Mg^{2+}, –4.5; Ca^{2+}, –4.4; Cr^{3+}, –4.2; Mn^{2+}, –4.6; Fe^{3+}, –3.7; Co^{2+}, –4.6; Cu^{2+}, –3.6; Zn^{2+}, –4.1; Cd^{2+}, –3.6; Hg^{2+}, –0.2; Pb^{2+}, –2.4	SSM	0.001	0.001	–	–	25 ± 0.5 °C; r.o.o.g.	[17]
Ag^+-51	**Ag^+-51** (w = 3 %), KTpClPB (x_i = 18 %), BBPA (w = 67 %), PVC (w = 29 %)	Li^+, –1.3; Na^+, –1.6; K^+, –1.6; Rb^+, –1.6; Cs^+, –1.6; NH_4^+, –1.2; Mg^{2+}, –3.3; Ca^{2+}, –3.0; Cr^{3+}, –2.5; Mn^{2+}, –3.3; Fe^{3+}, –1.6; Co^{2+}, –3.4; Cu^{2+}, –2.2; Zn^{2+}, –3.0; Cd^{2+}, –2.6; Hg^{2+}, 0.0; Pb^{2+}, –0.6	SSM	0.001	0.001	–	–	25 ± 0.5 °C; r.o.o.g.	[17]
Ag^+-52	**Ag^+-52** (w = 3 %), KTpClPB (x_i = 20 %), BBPA (w = 67 %), PVC (w = 29 %)	Li^+, –1.1; Na^+, –1.1; K^+, –0.7; Rb^+, –0.7; Cs^+, –0.6; NH_4^+, –0.7; Mg^{2+}, –3.4; Ca^{2+}, –3.0; Cr^{3+}, –3.1; Mn^{2+}, –3.2; Fe^{3+}, –2.2; Co^{2+}, –3.1; Cu^{2+}, –2.7; Zn^{2+}, –3.1; Cd^{2+}, –2.9; Hg^{2+}, –0.5; Pb^{2+}, –1.9	SSM	0.001	0.001	–	–	25 ± 0.5 °C; r.o.o.g.	[17]
Ag^+-53	**Ag^+-53** (w = 3 %), KTpClPB (x_i = 28 %), BBPA (w = 67 %), PVC (w = 29 %)	Li^+, –2.6; Na^+, –2.6; K^+, –2.7; Rb^+, –2.7; Cs^+, –2.9; NH_4^+, –2.6; Mg^{2+}, –4.2; Ca^{2+}, –4.3; Cr^{3+}, –4.4; Mn^{2+}, –4.2; Fe^{3+}, –4.6; Co^{2+}, –4.2; Cu^{2+}, –3.9; Zn^{2+}, –4.0; Cd^{2+}, –3.6; Hg^{2+}, –1.9; Pb^{2+}, –3.8	SSM	0.001	0.001	–	–	25 ± 0.5 °C; r.o.o.g.	[17]

continues on next page

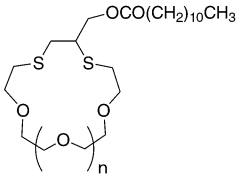
Table 13: Ag^+-Selective Electrodes (*Continued*)

ionophore	membrane composition	$\lg K_{Ag^+,B^{n+}}$	method	primary ion conc. (M)	interfering ion conc. (M)	slope (mV/ decade)	linear range (M)	remarks	ref.
Ag^+-54	**Ag^+-54** (w = 1.5 %), KTpClPB (x_i = 40 %), oNPPE (w = 65 %), PVC (w = 33 %)	Na^+, –4.080; K^+, –4.080; H^+, –1.569; Mg^{2+}, –5.040; Ca^{2+}, –4.719; Fe^{3+}, –4.070; Co^{2+}, –5.140; La^{3+}, –3.220; Hg^{2+}, –1.879; Pb^{2+}, –5.125; UO_2^{2+}, –3.240	SSM	0.01	0.01	56.7	10^{-5}–10^{-2}	25 °C; t_{resp} = 30 s; $c_{dl} = 1.0 \times 10^{-5}$ M	[18]
	Ag^+-54 (w = 1.5 %), KTpClPB (x_i = 40 %), DOA (w = 65 %), PVC (w = 33 %)	Na^+, –3.340; K^+, –3.010; Mg^{2+}, –5.170; Ca^{2+}, –5.070; Fe^{3+}, –2.921; Co^{2+}, –5.150; Hg^{2+}, –0.710; Pb^{2+}, –4.200	SSM	0.01	0.01	54.0	10^{-5}–10^{-2}	25 °C; t_{resp} = 50 s; $c_{dl} = 1.0 \times 10^{-5}$ M	[18]

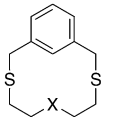
(1) M. Oue, K. Kimura, K. Akama, M. Tanaka, T. Shono, *Chem. Lett.*, 409–410 (1988).
(2) M. Oue, K. Akama, K. Kimura, M. Tanaka, T. Shono, *J. Chem. Soc., Perkin Trans. 1*, 1675–1678 (1989).
(3) M. Oue, K. Akama, K. Kimura, M. Tanaka, T. Shono, *Anal. Sci.*, **5**, 165–169 (1989).
(4) J. Casabó, C. Pérez-Jiménez, L. Escriche, S. Alegret, E. Martinez-Fabregas, F. Teixidor, *Chem. Lett.*, 1107–1108 (1990).
(5) J. Casabó, L. Mestres, L. Escriche, F. Texidor, C. Pérez-Jiménez, *J. Chem. Soc., Dalton Trans.*, 1969–1971 (1991).
(6) F. Teixidor, M.A. Flores, L. Escriche, C. Vinas, J. Casabó, *J. Chem. Soc., Chem. Commun.*, 963–964 (1994).
(7) K.M. O'Connor, G. Svehla, S.J. Harris, M.A. McKervey, *Talanta*, **39**, 1549–1554 (1992).
(8) K.M. O'Connor, G. Svehla, S.J. Harris, M.A. McKervey, *Anal. Proc.*, **30**, 137–139 (1993).
(9) Z. Brzozka, P.L.H.M. Cobben, D.N. Reinhoudt, J.J.H. Edema, J. Buter, R.M. Kellgg, *Anal. Chim. Acta*, **273**, 139–144 (1993).
(10) J. Casabó, T. Flor, M. I. Romero, F. Teixidor, C. Pérez-Jiménez, *Anal. Chim. Acta*, **294**, 207–213 (1994).
(11) E. Malinowska, Z. Brzózka, K. Kasiura, R.J.M. Egberink, D.N. Reinhoudt, *Anal. Chim. Acta*, **298**, 245–251 (1994).
(12) R.J.W. Lugtenberg, M.M.G. Antonisse, R.J.M. Egberink, J.F.J. Engbersen, D.N. Reinhoudt, *J. Chem. Soc. Perkin Trans. 2*, 1937–1941 (1996).
(13) A. Errachid, J. Bausells, A. Merlos, J. Esteve, F. Teixidor, C. Pérez-Jiménez, J. Casabó, C. Jiménez, J. Bartrolí, *Sens. Actuators B*, **26–27**, 321–324 (1995).
(14) W. Hasse, B. Ahlers, J. Reinbold, K. Cammann, G. Brodesser, F. Vögtle, *Sens. Actuators B*, **18–19**, 380–382 (1994).
(15) M.-R.M. Bates, T.J. Cardwell, R.W. Cattrall, L.W. Deady, C.G. Gregorio, *Talanta*, **42**, 999–1004 (1995).
(16) W. Wróblewski, Z. Brzózka, *Sens. Actuators B*, **24–25**, 183–187 (1995).
(17) D. Siswanta, K. Nagatsuka, H. Yamada, K. Kumakura, H. Hisamoto, Y. Shichi, K. Toshima, K. Suzuki, *Anal. Chem.*, **68**, 4166–4172 (1996).
(18) S.S. Park, S.O. Jung, S.M. Kim, J.-S. Kim, *Bull. Korean Chem. Soc.*, **17**, 405–407 (1996).



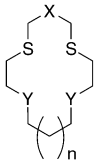
Ag^+- 1 (M_r = 418.67): X = S, Y = Z = O
Ag^+- 2 (M_r = 434.74): X = Z = O, Y = S
Ag^+- 3 (M_r = 434.74): X = Y = O, Z = S



Ag^+- 4 (M_r = 464.72): n = 1
Ag^+- 5 (M_r = 528.78): n = 2

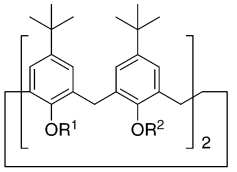


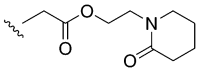
Ag^+- 6 (M_r = 240.39): X = O
Ag^+- 7 (M_r = 256.45): X = S
Ag^+- 8 (M_r = 238.41): X = CH_2



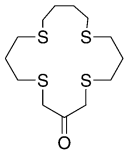
Ag^+- 13 (M_r = 282.51): n = 1, X = CO, Y = S
Ag^+- 14 (M_r = 268.53): n = 1, X = CH_2, Y = S
Ag^+- 15 (M_r = 280.54): n = 1, X = C CH_2, Y = S

Table 13: Ag^+-Selective Electrodes (*Continued*)



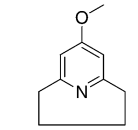
Ag⁺- 9 (M_r = 1381.77): $R^1 = R^2 =$ 

Ag⁺- 10 (M_r = 1165.82): $R^1 = R^2 = CH_2CSN(CH_2CH_3)_2$
Ag⁺- 11 (M_r = 1061.45): $R^1 = CH_2CO_2CH_2CH_2SCH_3$, $R^2 = CH_2CO_2CH_2CH_3$
Ag⁺- 12 (M_r = 1177.65): $R^1 = R^2 = CH_2CO_2CH_2CH_2SCH_3$
Ag⁺- 24 (M_r = 945.50): $R^1 = R^2 = CH_2CH_2SCH_3$
Ag⁺- 25 (M_r = 797.22): $R^1 = H$, $R^2 = CH_2CH_2SCH_3$

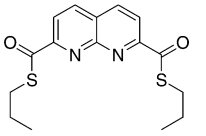


Ag⁺- 18 (M_r = 324.58)

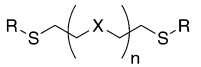
Ag⁺- 26 (M_r = 90.18): $R^1 = R^2$ = ethyl
Ag⁺- 27 (M_r = 138.23): R^1 = phenyl, R^2 = ethyl
Ag⁺- 28 (M_r = 186.27): $R^1 = R^2$ = phenyl

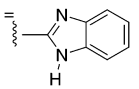


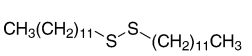
Ag⁺- 29 (M_r = 163.22)



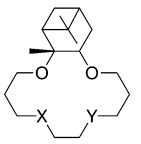
Ag⁺- 32 (M_r = 334.46)



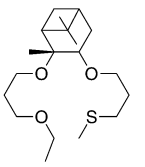
Ag⁺- 34 (M_r = 374.74): n = 0, R = decyl
Ag⁺- 35 (M_r = 434.85): n = 1, X = S, R = decyl
Ag⁺- 36 (M_r = 390.56): n = 1, X = O, R = 2-naphthyl
Ag⁺- 37 (M_r = 420.59): n = 1, X = O, R = 1-naphthyl-amino
Ag⁺- 38 (M_r = 370.49): n = 1, X = O, R = 



Ag⁺- 33 (M_r = 402.79)

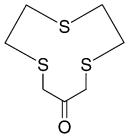


Ag⁺- 39 (M_r = 312.44): X = Y = O
Ag⁺- 40 (M_r = 328.51): X = O, Y = S
Ag⁺- 41 (M_r = 328.51): X = S, Y = O
Ag⁺- 42 (M_r = 344.58): X = Y = S

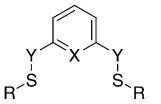


Ag⁺- 43 (M_r = 344.55)

Ag⁺- 16 (M_r = 268.47): n = 0, X = CO, Y = S
Ag⁺- 19 (M_r = 236.35): n = 0, X = CO, Y = O



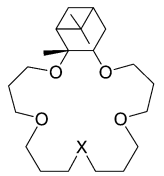
Ag⁺- 17 (M_r = 208.37)



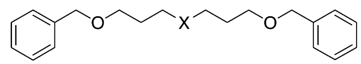
Ag⁺- 20 (M_r = 226.30): X = CH, Y = CH_2, R = ethyl
Ag⁺- 21 (M_r = 310.56): X = CH, Y = CH_2, R = pentyl
Ag⁺- 22 (M_r = 394.72): X = CH, Y = CH_2, R = octyl
Ag⁺- 23 (M_r = 506.93): X = CH, Y = CH_2, R = dodecyl
Ag⁺- 30 (M_r = 283.41): X = N, Y = CO, R = propyl
Ag⁺- 31 (M_r = 282.42): X = CH, Y = CO, R = propyl

continues on next page

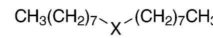
Table 13: Ag^{+}-Selective Electrodes (*Continued*)



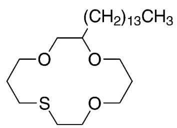
Ag^{+}- 44 (M_r = 400.62): X = S
Ag^{+}- 45 (M_r = 416.62): X = SO
Ag^{+}- 46 (M_r = 432.62): X = SO_2



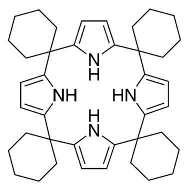
Ag^{+}- 47 (M_r = 330.49): X = S
Ag^{+}- 48 (M_r = 346.48): X = SO
Ag^{+}- 49 (M_r = 362.48): X = SO_2



Ag^{+}- 50 (M_r = 258.51): X = S
Ag^{+}- 51 (M_r = 274.51): X = SO
Ag^{+}- 52 (M_r = 290.51): X = SO_2



Ag^{+}-53 (M_r = 416.70)



Ag^{+}- 54 (M_r = 588.87)