SC-Database
Software version = 5.81 Data version = 4.62
Experiment list contains 24 experiments for
 (no ligands specified)
 Metal : Ra++
 (no references specified)
 (no experimental details specified)

****
e-   HL   Electron   (442)
Electron;

Metal   Mtd Medium Temp Conc Cal Flags Lg K values   Reference ExptNo
----
Ra++   oth none   25°C 0.0 U   1952LAb   (865)   1
                                          K(Ra+2e)=-98.6(-2920 mV)
Method:combination of thermodynamic data
****
SO4--   H2L   Sulfate   CAS 7664-93-9 (15)
Sulfate;

Metal   Mtd Medium Temp Conc Cal Flags Lg K values   Reference ExptNo
----
Ra++   sol none   25°C 0.0 M   K1=2.76   1998PKb (16511)   2
                                          Kso(RaSO4)=-10.21
Application of Pitzer equations to literature data for the solubility of
RaSO4 in H2SO4.

Ra++   oth none   25°C 0.00 U   1985LMa (16512)   3
                                          Kso(RaSO4)=-10.26
Derived from literature data

Ra++   sol oth/un 20°C 0.0 U   1933NTa (16513)   4
                                          Kso(RaL)=-10.37

Ra++   sol oth/un 25°C dil U T   1923BOa (16514)   5
                                          Kso(RaL)=-14.38
Kso=-13.62(45 C) ?
****
C3H4O3   HL   Pyruvic acid   CAS 127-17-3 (1152)
2-Oxopropanoic acid; CH3.CO.COOH

Metal   Mtd Medium Temp Conc Cal Flags Lg K values   Reference ExptNo
----
Ra++   ix oth/un 25°C 0.16M U   K1=0.89   1950SRa (24069)   6

Ra++   ix oth/un 25°C 0.16M U   K1=1.9   1933CCa (24070)   7
****
C4H4O4   H2L   Fumaric acid   CAS 110-17-8 (289)
trans-Butenedioic acid; HOOC.CH:CH.COOH

```
--------------------------------------------------------------------------
Metal        Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Ra++         ix  oth/un 25°C 0.16M U        K1=1.6           1950SRa (29216)   8
**************************************************************************
C4H4O5           H2L    Oxobutanedioic   CAS 328-42-7  (1733)
2-Oxosuccinic acid, Oxalacetic acid; HOOC.CH2.CO.COOH
--------------------------------------------------------------------------
Metal        Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Ra++         ix  oth/un 25°C 0.16M U        K1=0.16          1950SRa (29280)   9
**************************************************************************
C4H6O4           H2L    Succinic acid   CAS 110-15-6  (112)
1,4-Butanedioic acid; HOOC.CH2.CH2.COOH
--------------------------------------------------------------------------
Metal        Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Ra++         ix  oth/un 25°C 0.16M U        K1=1.0           1950SRa (30032)  10
**************************************************************************
C4H6O5           H2L    Malic acid      CAS 617-48-1  (393)
2-Hydroxybutane-1,4-dioic acid, Hydroxy-succinic acid; HOOC.CH2.CH(OH).COOH
--------------------------------------------------------------------------
Metal        Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Ra++         ix  oth/un 25°C 0.16M U        K1=0.95          1954SCa (30712)  11
**************************************************************************
C4H6O6           H2L    L-Tartaric acid CAS 87-69-4  (92)
L-Tartaric acid, L-2,3-Dihydroxybutanedioic acid; HOOC.CH(OH).CH(OH).COOH
--------------------------------------------------------------------------
Metal        Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Ra++         ix  oth/un 25°C 0.16M U        K1=1.24          1954SCa (31343)  12
--------------------------------------------------------------------------
Ra++         ix  oth/un 25°C 0.16M U        K1=1.2           1950SRa (31344)  13
**************************************************************************
C6H8O7           H3L    Citric acid     CAS 77-92-9  (95)
2-Hydroxypropane-1,2,3-tricarboxylic acid; HOOCCH2.CH(OH)(COOH).CH2COOH
--------------------------------------------------------------------------
Metal        Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Ra++         ix  oth/un 25°C 0.16M U        K1=2.36          1954SCa (46242)  14
--------------------------------------------------------------------------
Ra++         ix  oth/un 25°C 0.16M U        K1=2.0           1948SRa (46243)  15
--------------------------------------------------------------------------
Ra++         ix  alc/w 25°C  38%  U        K1=2.4           1930CCa (46244)  16
Medium: 38% EtOH, 0.16 M
**************************************************************************
C7H6O6S          H3L                        CAS 5965-83-3  (399)
5-Sulfosalicylic acid, 2-Hydroxy-5-sulfobenzoic; HO3S.C6H3(OH).COOH
--------------------------------------------------------------------------
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Metal       Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------------
Ra++        ix  oth/un 25°C 0.16M U                          1950SRa (55042)  17
                                        K(Ra+HL)=1.9
****************************************************************************
C10H16N2O8            H4L   EDTA           CAS 60-00-4  (120)
1,2-Diaminoethane-N,N,N',N'-tetraethanoic acid, Sequestric acid;
----------------------------------------------------------------------------
Metal       Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------------
Ra++        ix  NaCl   20°C 0.10M U      T K1=7.07           1978ANa (74123)  18
IUPAC evaluation
----------------------------------------------------------------------------
Ra++        dis NaClO4 25°C 0.10M U        K1=7.5            1968SKa (74124)  19
****************************************************************************
C10H18N2O7            H3L   HEDTA          CAS 150-39-0  (392)
N-(Hydroxyethyl)diaminoethane-N,N',N'-triethanoic acid;
----------------------------------------------------------------------------
Metal       Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------------
Ra++        dis NaClO4 25°C 0.10M U        K1=5.6            1968SKa (75485)  20
****************************************************************************
C12H24O6             L     18-Crown-6     CAS 17455-13-9  (577)
1,4,7,10,13,16-Hexaoxacyclooctadecane;
----------------------------------------------------------------------------
Metal       Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------------
Ra++        vlt oth/un 25°C 0.10M C        K1=3.43           1985SKd (83590)  21
Method: radiopolarography. Medium: 0.10 M LiCl.
****************************************************************************
C14H22N2O8            H4L   CDTA           CAS 482-54-2  (200)
trans-1,2-Diaminocyclohexane-N,N,N',N'-tetraethanoic acid;
----------------------------------------------------------------------------
Metal       Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------------
Ra++        dis NaClO4 25°C 0.10M U        K1=8.3            1968SKa (88766)  22
****************************************************************************
C14H23N3O10           H5L   DTPA           CAS 67-43-6  (238)
Diethylenetriamine-pentaethanoic acid; HOOC.CH2.N(CH2.CH2.N(CH2.COOH)2)2
----------------------------------------------------------------------------
Metal       Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------------
Ra++        dis NaClO4 25°C 0.10M U        K1=8.5            1968SKa (89374)  23
****************************************************************************
C14H24N2O10           EGTA           CAS 67-42-5  (349)
Ethyleneglycol-O,O'-bis(2-aminoethyl ether)-N,N,N',N'-tetraethanoic acid; H4L
----------------------------------------------------------------------------
Metal       Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------------
Ra++        dis NaClO4 25°C 0.10M U        K1=7.7            1968SKa (89926)  24
```

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EXPLANATORY NOTES

  DATA Flags are :-

      T Data at other TEMPERATURES

  EVALUATION Flags are :-

      T or IUP=T signifies EVALUATION RATING = Tentative by IUPAC

END Experiments recorded for Dr. M. Filella, University of Geneva
    from SC-Database on Sunday, 25 September, 2022 at 11:09:25