Minutes

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

SUBCOMMITTEE ON SOLUBILITY AND EQUILIBRIUM DATA

41st Annual Meeting (14th of SSED)

Held in conjunction
with the 34th ICSC,
Prague, Czech Republic
30th August 2015

	Sunday, August 30, 2015, 9:00–18:00	
1.	Introduction of participants and welcome to the new members A list of the participants is appended to these minutes.	Clara Magalhães
2.	In memoriam John Lorimer David Shaw gave a brief eulogy describing Jack's roles in IUPAC and the SSED and the Solubility Data Commission and including a number of personal recollections. The meeting observed a minute's silence.	
3.	Approval of Minutes of the 40th Annual Meeting (15th of SSED) in conjunction with the 16th ISSP, Karlsruhe, Germany The minutes of the 15th SSED meeting were approved without corrections.	Earle Waghorne
4.	Chairs Report A copy of the Chair's report is attached	Clara Magalhães
5.	Franzosini Award Clara Magalhães requested nominations for the Franzosini award to be presented at the 17th ISSP in 2016 in Geneva.	Clara Magalhães

6.	Representative to CODATA Clara Magalhães explained that IUPAC has no representatives to CODATA snd asked for nominations to represent IUPAC. It was decided to contact the IUPAC secretariat to understand how it could become official.	
7.	Publications 7.1 Books Clara Magalhães explained that IUPAC doesn't require the De Gruyter be publisher of all IUPAC books. David Fellhaur will have a list of authors for the book project on Nuclear Chemistry by the next meeting. 7.2 Chemistry International and Pure and Applied Chemistry Wolfgang Voigt commented that the current lack of access to PAC was a deterrent for authors.	Clara Magalhães M. Altmaier/D. Fellhau C. Magalhães/D. Shaw
8.	Projects 8.1 Editor-in-Chief's Report. Next volumes to be published in SDS. The EiC report is appended to these minutes. 8.2 Subcommittee Reports Subcommittee reports are appended to these minutes 8.3 Analysis and revision of the present projects, and task group reports The Chair's report on the status of projects is appended to these minutes. 8,4 Data Base on Ionic Liquids Magdalena Bendová and Zdnek Wagner reported that progress is satisfactory. Clara, do you have a copy of Zdnek's report 8.5 Orange Book Christo Balarew reported that there was the possibility of a supplement to the Orange Book covering physical chemical methods used in aqueous salt systems.	Clara Magalhães M. Salomon/C. Magalhã G. Hefter, W. Voigt, D. de Vissher Clara Magalhães Christo Balarev D. Shaw/C. Magalhães Magdalena Bendová Christo Balarew

	8,6 SSED web-site and new IUPAC web-site Clara Magalhães described the progress on the new IUPAC web-site. The power point of presentation is attached to the minutes. 8.7 New Projects See the report on Projects appended (8.3) 8.8 IUPAC reporting procedures It was decided to send all the SSED members a copy of the new project proposal forms.	
9.	Interdivisional committee David Shaw had circulated a discussion document about the future of the SSED within IUPAC.	C. Magalhães/D. Shaw
10.	Financial matters The possibility of receiving funding for the SSED, as opposed to project funding, from IUPAC or JPCRD was discussed. It was agreed that the residue of the money from the previous agreement with NIST could be used to help fund the Chair of the SSED when they attended ACD meetings if alternative funding wasn't available. (Note that the Chair is not automatically a titular member of ACD and only titular meembers receive IUPAC funding. Associated members are effectively self funding and National Representatives are expected to have support from their NAO.)	Clara Magalhães
11.	Approach from Springer to include SDS volumes in their database Earle Waghorne explained that the coordinates of the Springer group had been sent to Dr. Soby who had agreed to initiate discussions with Springer in the near future.	Earle Waghorne
12.	12.1 ISSP 2016 It was formally agreed that the 2016 ISSP would be held in Geneva and Montserrat Filella reported on the organization of the meeting. 12.2 Proposal to publish conference proceedings in the Journal of Solution Chemistry	Montserrat Filella Earle Waghorne

	It was agreed that the papers not included in PAC would be published in a special issue of the Journal of Solution Chemistry.	
13.	Next SSED meetings and ISSP 2018 It was agreed that the next meeting of the SSED would be held in conjunction with the 2016 ISSP in Geneva.	
14.	Other 14.1 Social media - Dissemination of the information about SSED Magdalena Bendová described the Faccebook and LinkedIn pages 14.2 The "Observer category" Clara Magalhães explained that this category had been created some time ago and provide a way to introduce new scientists to IUPAC and its activities. 14.3 A membership position in ACD as titular member It was noted that Clara Magalhães has served her term as a titular member of ACD and is now an associate member. David Shaw has been elected as a titular member and Earle Waghorne as the national representative for Ireland. 14.4 New members and new scientific areas Clara Magalhães explained that it was a challenge to attract new people from new scientific areas. The ISSP provides one important way to attract new members.	Magdalena Bendová Clara Magalhães Clara Magalhães Clara Magalhães
15	Any other business There was no further business	
15.	Adjournment	Clara Magalhães

Attendees at the Meeting

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IUPAC Advancing Worldwide Chemistry

Subcommittee on Solubility and Equilibrium Data

Activity Report

From March 2014 to July 2015

IUPAC-Analitycal Chemistry Division annual meeting, Busan, Korea 8-9 August 2015

IUPAC Advancing Worldwide Chemistry

Important features

- ***Signature of IUPAC-NIST agreement for online publication of IUPAC Solubility Data Series Volumes 1 to 65*** – 19th September 2014

- ***Publication of all SDS volumes online with free access***
  http://srdata.nist.gov/solubility/IUPAC/iupac.aspx - vol66.htm

- ***Contact of Springer and De Gruyter to use and disseminate some of the data***

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Visibility of SSED within IUPAC 2014/2015

- ***CI*, 36,** No. 1, January – February 2014
  - ***Mark your calendar***
    - ♣ Pg. 32: 21-25 July 2014 – Solubility Phenomena – Karlsruhe, Germany
- ***CI*, 36,** No. 2, March – April 2014
  - ***The Project Place***
    - ♣ Pg. 21-22: Unveilling the Mysteries of Ionic Liquids in Prague, Magdalena Bendová
  - ***Where 2B & Y***
    - ♣ Pg. 33: Solubility Phenomena, 21-25 July 2014, Karlsruhe, Germany
  - ***Mark your calendar***
    - ♣ Pg. 36: 21-25 July 2014 – Solubility Phenomena – Karlsruhe, Germany

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Visibility of SSED within IUPAC 2014/2015

- ***CI*, 36,** No. 3, May – June 2014
  - ***Mark your calendar***
    - ♣ Pg. 35: 21-25 July 2014 – Solubility Phenomena – Karlsruhe, Germany
- ***CI*, 36,** No. 4, July – August 2014
  - ***Making an imPACt***
    - ♣ Pg. 19: Marian Góral et al., Alcohols + hydrocarbons + water, Journal of Physical and Chemical Reference Data 43, 023101 (2014), IUPAC-NIST Solubility Data Series, Volume 101
  - ***Making an imPACt***
    - ♣ Pg. 20: T. Mioduski, C. Giminski, and D. Zeng, Rare Earth Metal Fluorides in water and Aqueous Systems, Journal of Physical and Chemical Reference Data 43, 013105 (2014), IUPAC-NIST Solubility Data Series, Volume 100
  - ***Mark your calendar***
    - ♣ Pg. 36: 21-25 July 2014 – Solubility Phenomena – Karlsruhe, Germany

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Visibility of SSED within IUPAC 2014/2015

- ***CI*, 36,** No. 5, September – October 2014
  - ***Making an imPACt***
    - ♣ Pg. 21: William E. Acree, Solubility of Nonsteroidal Anti-inflammatory drugs (NSAIDs) in neat organic solvents and organic solvents mixtures, Journal of Physical and Chemical Reference Data 043, 023102 (2014)
- ***CI*, 37,** No. 1, January – February 2015
  - ***Chemical Speciation of Environmental Significant Metals***
    - ♣ Pg. 15-19: K. J. Powell, P. L. Brown, R. H. Byrne, T. Gajda, G. Hefter, A.- K. Leuz, S. Sjöberg and H. Wanner, An IUPAC contribution to reliable and vigorous computer modelling
  - ***Conference Call***
    - ♣ Pg. 30: David Shaw, 100 volume of IUPAC's Solubility Data Series
- ***CI*, 37,** No. 2, March – April 2015
  - ***Conference Call***
    - ♣ Pg. 30-31: Marcus Altmaier, Solubility Phenomena and Related Equilibrium Processes

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Completed SDS Volumes
IUPAC-NIST Solubility Data Series

- ***Volume 100***: Tomasz Mioduski , Cezary Gumiński and Dewen Zeng
  - ♦ "Rare Earth Metal Fluorides in Water and Aqueous Systems. Part 1. Scandium Group (Sc, Y, La)", *J. Phys. Chem. Ref. Data* (2014), **43**(1), 033103 (48 pages)
- ***Volume 100***: Tomasz Mioduski , Cezary Gumiński and Dewen Zeng
  - ♦ "Rare Earth Metal Fluorides in Water and Aqueous Systems. Part 2. Light Lanthanides (Ce–Eu)", *J. Phys. Chem. Ref. Data* (2015), **44**(1), 013102
- ***Volume 100***: Tomasz Mioduski , Cezary Gumiński and Dewen Zeng
  - ♦ "Rare Earth Metal Fluorides in Water and Aqueous Systems. Part 3. Heavy Lanthanides (Gd–Lu)", *J. Phys. Chem. Ref. Data* (2015), **44**(2), 023102

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Completed SDS Volumes
IUPAC-NIST Solubility Data Series (cont.)

- ***Volume 101***: Marian Góral, David G. Shaw, Andrzej Mączyński, Barbara Wiśniewska-Gocłowska and Paweł Oracz
  - "Alcohols + Hydrocarbons + Water. Part 1. C_4–C_{10} Alcohols", *J. Phys. Chem. Ref. Data* (2014), **43**(2), 023101 (33 pages)
- ***Volume 102***: William E. Acree Jr.
  - "Solubility of Nonsteroidal Anti-inflammatory Drugs (NSAIDs) in Neat Organic Solvents and Organic Solvent Mixtures", *J. Phys. Chem. Ref. Data* (2014), **43**(2), 023102 (276 pages)
- ***Volume 103***: H. Lawrence Clever, Rubin Battino, Hiroshi Miyamoto, Yuri Yampolski and Colin L. Young
  - "Oxygen and Ozone in Water, Aqueous Solutions, and Organic Liquids (Supplement to Solubility Data Series Volume 7)", *J. Phys. Chem. Ref. Data* (2014), **43**(3), 033102 (209 pages)

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Completed SDS Volumes
IUPAC-NIST Solubility Data Series (cont.)

- ***2014 – JPCRD Volume 43 – number 4***
- ***Erratum:*** The Solubility of Nitrogen and Air in Liquids [*J. Phys. Chem. Ref. Data* **13**, 563 (1984)]
- Rubin Battino, Timothy R. Rettich and Toshihiro Tominaga
- *Journal of Physical and Chemical Reference Data* **43**, 049901 (2014)

- ***2015 – JPCRD Volume 44 – number 1***
- ***Erratum***: IUPAC-NIST Solubility Data Series. 81. Hydrocarbons with Water and Seawater Revised and Updated. Part 7. C_8H_{12}–C_8H_{18} Hydrocarbons with Water [J. Phys. Chem. Ref. Data 34, 2261 (2005)]
- David G. Shaw and Andrzej Maczynski
- *Journal of Physical and Chemical Reference Data* **44**, 019902 (2015)

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JPCRD metrics
number of downloads and/or views

SDS Volume(Part)	Publication Date	Compilation Period	PDF download	Full text view	Abstract view
100(1)	online – 31/03/2014	03/2014 – 06/2015	69	104	257
100(2)	online – 30/01/2015	01/2015 – 06/2015	63	106	209
100(3)	online – 08/06/2015	June 2015	21	21	19
101(1)	online – 03/04/2014	04/2014 – 06/2015	105	188	409
102	online – 25/04/2014	04/2014 – 06/2015	82	139	315
103	online - 18/08/2014	08/2014 – 06/2015	134	178	509

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Previous Incomplete SDS Volumes to be published

- ***Volume 92***: Part 2 - Heinz Gamsjäger , et al.
  - ♦ **“**Metal carbonates. Solubility and Related Thermodynamic Quantities of Lead(II) carbonates”
- ***Volume 95*****:** Part 3 - Alex de Visscher, Jan Vanderdeelen,
  - ♦ “Alkaline Earth Carbonates in Aqueous Systems. Sr and Ba”
- ***Volume 101*****:** Parts 2 and 3 – Marian Goral, et al,
  - ♦ ““Alcohols + Hydrocarbons + Water.”

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Publications in Pure and Applied Chemistry

- ***Volume 87***(Issue 5) 2015**:** communications presented in the

  16th International Symposium on Solubility Phenomena and Related Equilibrium Processes (ISSP-16), Karlsruhe, Germany, 21–25 July 2014 This conference is part of the **Solubility Phenomena** series. (6 papers)

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Projects already finished

2006-034-1-500: Solubility of oxygen in all solvents (update of volume 7, 1981)

2007-045-1-500: Solubility data related to industrial processes. Solubility of higher alkynes in liquids

2012-025-1-500: Polycyclic Aromatic Hydrocarbons in Pure and Binary Solvent Mixtures (Update of Volumes 54, 58 and 59)

2012-030-1-500: Rare Earth Metal Fluorides in Water and Aqueous Systems

2013-018-1-500: Solubility of Benzoic Acid and Substituted Benzoic Acids in Both Neat Organic Solvents and Organic Solvents Mixtures

2014-006-1-500: Solubility of Non-Steroidal Anti-Inflammatory Drugs in Both Neat Organic Solvents and Organic Solvents Mixtures

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Projects in progress

- Project number: 2002-031-1-500
- Project number: 2002-035-1-500
- Project number: 2002-044-1-500
- Project number: 2008-025-1-500
- Project number: 2011-031-1-500
- Project number: 2011-043-1-500
- Project number: 2011-065-3-500
- Project number: 2012-004-1-500
- Project number: 2012-006-1-500
- Project number: 2012-008-1-500
- Project number: 2012-022-1-500
- Project number: 2012-031-1-500
- Project number: 2013-034-1-500
- Project number: 2014-012-2-500

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Projects for publication

2002-031-1-500: Solubility data of compounds relevant to mobility of metals in the environment. Alkaline earth metal carbonates. Part 3

2011-043-1-500: Solubility data related to Industrial Processes. Solubility data in ternary systems containing water alcohol, and hydrocarbon

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Last meetings and conferences

SSED meeting – The 40th solubility subcommittee annual meeting (13th of SSED) occurred in Karlsruhe, Germany, on the 20th July 2014 in conjunction with the 16th ISSP.

16th ISSP - The 16th International Symposium on Solubility Phenomena and Related Equilibrium Processes occurred in Karlsruhe, Germany, from the 21st to the 25th July 2014.

248th American Chemical Society National Meeting – 10 - 14th August 2014, San Francisco, California, Division of Chemical Information – symposium **"The IUPAC Solubility Data Series: 100 Volumes of Solubility Data Online"**

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Next meeting and conference

SSED meeting – The 42nd solubility subcommittee annual meeting (15th of SSED) will occur in Geneve, Switzerland, on the 23rd July 2016 in conjunction with the 17th ISSP.

17th ISSP - The 17th International Symposium on Solubility Phenomena and Related Equilibrium Processes will occur in Geneve, Switzerland, from the 24th to the 29th July 2016.

Editor-in-Chief Report
Solubility and Equilibrium Data Subcommittee
International Union of Pure and Applied Chemistry
14th Meeting of the SSED

Prepared by Mark Salomon

To date, the Subcommittee on Solubility and Equilibrium Data (SSED) has published 103 volumes in the *Solubility Data Series*. A number of volumes are quite large and thus have been published in parts in *JPCRD* bringing the total number of SDS publications to 136. Four volumes were published in 2014, and two volumes were published in 2015.

The updated list of published volumes is given in the Appendix. For solid-liquid systems, we are planning a new project on Alkaline Earth Metal Chlorides, and a revision of the draft volume on Be Sulfates (Jack Lorimer and Jiri Hala, project number 2012-006-1-500). Details on these and other new volumes are anticipated to be discussed by the chairs of the gas-liquid, liquid-liquid and solid-liquid subcommittees during the 14th meeting of the SSED.

Appendix I. SDS Volumes Published from 1979 to 2015

IUPAC-NIST SOLUBILITY DATA SERIES	
Volume	Author, Title, Publisher
1	H.L. Clever, *Helium and Neon*, Pergamon Press, 1979.
2	H.L. Clever, *Krypton, Xenon and Radon*, Pergamon Press, 1979.
3	M. Salomon, *Silver Azide, Cyanide, Cyanamides, Cyanate, Selenocyanate and Thiocyanate*, Pergamon Press, 1979.
4	H.L. Clever, *Argon*, Pergamon Press, 1980.
5/6	C.L. Young, *Hydrogen and Deuterium*, Pergamon Press, 1981.
7	R. Battino, *Oxygen and Ozone*, Pergamon Press, 1981.
8	C.L. Young, *Oxides of Nitrogen*, Pergamon Press, 1982.
9	W. Hayduk, *Ethane*, Pergamon Press, 1982.
10	R. Battino, *Nitrogen and Air*, Pergamon Press, 1982.
11	B. Scrosati and C.A. Vincent, *Alkali Metal, Alkaline Earth Metal and Ammonium Halides, Amide Solvents*, Pergamon Press, 1982.
12	C.L. Young, *Sulfur Dioxide, Chlorine, Fluorine and Chlorine Oxides*, Pergamon Press, 1983.
13	13 S. Siekierski, T. Mioduski and M. Salomon, *Scandium, Yttrium, Lanthanum and Lanthanide Nitrates*, Pergamon Press, 1983.
14	H. Miyamoto, M. Salomon and H.L. Clever, *Alkaline Earth Metal Halates*, Pergamon Press, 1983.
15	A.F.M. Barton, *Alcohols with Water*, Pergamon Press, 1984.
16/17	E. Tomlinson and A. Regosch, *Antibiotics: 1,β-Lactam Antibiotics*, Pergamon Press, 1985.
18	O. Popovych, *Tetraphenylborates*, Pergamon Press, 1985.
19	C.L. Young, *Cumulative Index: s 1-18*, Pergamon Press, 1985.
20	A.L. Horvath and F.W. Getzen, *Halogenated Benzenes, Toluenes and Phenols with Water*, Pergamon Press, 1985.
21	C.L. Young and P.G.T. Fogg, *Ammonia, Amines, Phosphine, Arsine, Stibine, Silane, Germane and Stannane in Organic Solvents*, Pergamon Press, 1985.
22	T. Mioduski and M. Salomon, *Scandium, Yttrium, Lanthanum and Lanthanide Halides in Non-aqueous Solvents*, Pergamon Press, 1985.
23	T.P. Dirkse, *Copper, Silver, Gold and Zinc, Cadmium, Mercury Oxides and Hydroxides*, Pergamon Press, 1986.
24	W. Hayduk, *Propane, Butane and 2-Methylpropane*, Pergamon Press, 1986.
25	C. Hirayama, Z. Galus and C. Guminski, *Metals in Mercury*, Pergamon Press, 1986.
26	M.R. Masson, H.D. Lutz and B. Engelen, *Sulfites, Selenites and Tellurites*, Pergamon Press, 1986.
27/28	H.L. Clever and C.L. Young, *Methane*, Pergamon Press, 1987.
29	H.L. Clever, *Mercury in Liquids, Compressed Gases, Molten Salts and Other Elements*, Pergamon Press, 1988.
30	H. Miyamoto and M. Salomon, *Alkali Metal Halates, Ammonium Iodate and Iodic Acid*, Pergamon Press, 1987.
31	J. Eysseltova and T.P. Dirkse, *Alkali Metal Orthophosphates*, Pergamon Press, 1988.
32	P.G.T. Fogg and C.L. Young, *Hydrogen Sulfide, Deuterium Sulfide and Hydrogen Selenide*, Pergamon Press, 1988.
33	P. Franzosini, *Molten Alkali Metal Alkanoates*, Pergamon Press, 1988.
34	A.N. Paruta and R. Piekos, *4-Aminobenzenesulfonamides. Part I: Non-cyclic Substituents*, Pergamon Press, 1988.
35	A.N. Paruta and R. Piekos, *4-Aminobenzenesulfonamides. Part II: 5-membered Heterocyclic Substituents*, Pergamon Press, 1988.
36	A.N. Paruta and R. Piekos, *4-Aminobenzenesulfonamides. Part III: 6-membered Heterocyclic Substituents and Miscellaneous Systems*, Pergamon Press, 1989.
37	D.G. Shaw, *Hydrocarbons with Water and Seawater. Part I: Hydrocarbons C5 to C7*, Pergamon Press, 1989.
38	D.G. Shaw, *Hydrocarbons with Water and Seawater. Part II: Hydrocarbons C8 to C36*, Pergamon

	Press, 1989.
39	C.L. Young, *Cumulative Index: for volumes 20-38*, Pergamon Press, 1989.
40	J. Hala, Halides, *Oxyhalides and Salts of Halogen Complexes of Titanium, Zirconium, Hafnium, Vanadium, Niobium and Tantalum*, Pergamon Press, 1989.
41	C.-Y. Chan, I.N. Lepeshkov and K.H. Khoo, *Alkaline Earth Metal Perchlorates*, Pergamon Press, 1989.
42	P.G.T. Fogg and W. Gerrard, *Hydrogen Halides in Non-aqueous Solvents*, Pergamon Press, 1989.
43	R.W. Cargill, *Carbon Monoxide*, Pergamon Press, 1990.
44	H. Miyamoto, E.M. Woolley and M. Salomon, *Copper and Silver Halates* Pergamon Press, 1990.
45/46	R.P.T. Tomkins and N.P. Bansal, *Gases in Molten Salts* Pergamon Press, 1991.
47	R. Cohen-Adad and J.W. Lorimer, *Alkali Metal and Ammonium Halides in Water and Heavy Water (Binary Systems)*, Pergamon Press, 1991.
48	F. Getzen, G. Hefter and A. Maczynski, *Esters with Water. Part I: Esters 2-C to 6-C,* Pergamon Press, 1992.
49	F. Getzen, G. Hefter and A. Maczynski, *Esters with Water. Part II: Esters 7-Cto 32-C,* Pergamon Press, 1992.
50	P.G.T. Fogg, *Carbon Dioxide in Non-aqueous Solvents at Pressures Less Than 200 kPa,* Pergamon Press, 1990.
51	J.G. Osteryoung, M.M. Schneider, C. Guminski and Z. Galus, *Intermetallic Compounds in Mercury*, Pergamon Press, 1992.
52	I. Lambert and H.L. Clever, *Alkaline Earth Hydroxides in Water and Aqueous Solutions*, Pergamon Press, 1992.
53	C.L. Young, *Cumulative Index: for volumes 40-52*, Pergamon Press, 1993.
54	W.E. Acree, Jr., *Polycyclic Aromatic Hydrocarbons in Pure and Binary Solvents*, Oxford University Press, 1994.
55	S. Siekierski and S.L. Phillips, *Actinide Nitrates* Oxford University Press, 1994.
56	D. Shaw, A. Skrzecz, J.W. Lorimer and A. Maczynski, *Alcohols with Hydrocarbons,* Oxford University Press, 1994.
57	W. Hayduk, *Ethene*, Oxford University Press, 1994.
58	W.E. Acree, Jr., *Polycyclic Aromatic Hydrocarbons: Binary Non-aqueous Systems, Part I: Solvents A-E*, Oxford University Press, 1995.
59	W.E. Acree, Jr., *Polycyclic Aromatic Hydrocarbons: Binary Non-aqueous Systems, Part II: Solvents F-Z*, Oxford University Press, 1995.
60	A.L. Horvath and F.W. Getzen, *Halogenated Methanes with Water*, Oxford University Press, 1995.
61	C.-Y. Chan, K.H. Khoo, E.S. Gryzlova and M.-T. Saugier-Cohen Adad, *Alkali Metal and Ammonium Perchlorates, Part I: Lithium and Sodium Perchlorates*, Oxford University Press, 1995.
62	P. Scharlin, *Carbon Dioxide in Water and Aqueous Electrolyte Solutions*, Oxford University Press, 1995.
63	H.U. Borgstedt and C. Guminski, *Metals in Liquid Alkali Metals, Part I: Be to Os*, Oxford University Press, 1996.
64	H.U. Borgstedt and C. Guminski, *Metals in Liquid Alkali Metals, Part II: Co to Bi*, Oxford University Press, 1996.
65	J.J. Fritz and E. Königsberger, *Copper(I) Halides and Pseudohalides*, Oxford University Press, 1996.
66	J. Eysseltová and T.P. Dirkse, *Ammonium Phosphates*, JPCRD **27(5)**, 1289 (1998)
67	A.L. Horvath, F.W. Getzen and Z. Maczynska, *Halogenated Ethanes and Ethenes with Water,* JPCRD **28(2)**, 395 (1999)
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96 (3)	M. Góral, D. G. Shaw, A. Maczynski, B. Wisniewska-Goclowska and P. Oracz *IUPAC-NIST Solubility Data Series. 96. Amines with Water. Part 3. Non-Aliphatic Amines*, JPCRD **41**, 043108 (2012).
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98 (2)	W.E. Acree, Jr. *IUPAC-NIST Solubility Data Series. 98. Solubility of Polycyclic Aromatic Hydrocarbons in Pure and Organic Solvent Mixtures: Revised and Updated. Part 2. Ternary Solvent Mixtures*. JPCRD **42**, 13104 (2013).
98 (3)	W.E. Acree, Jr. *IUPAC-NIST Solubility Data Series. 98. Solubility of Polycyclic Aromatic Hydrocarbons in Pure and Organic Solvent Mixtures: Revised and Updated. Part 3. Neat Organic*

	Solvents, JPCRD **42**, 13105 (2013).
99	W.E. Acree, Jr. *IUPAC-NIST Solubility Data Series. 99. Solubility of Benzoic Acid and Substituted Benzoic Acids in Both Neat Organic Solvents and Organic Solvent Mixtures,* JPCRD **42**, 033103 (2013).
100 (1)	T. Mioduski, C. Guminski and D. Zeng, *IUPAC-NIST Solubility Data Series. 100. Rare Earth Metal Fluorides in Water and Aqueous Systems. Part 1. Scandium Group (Sc, Y, La),* **43**, 013105 (2014).
100 (2)	T. Mioduski, C. Guminski and D. Zeng, *IUPAC-NIST Solubility Data Series. 100. Rare Earth Metal Fluorides in Water and Aqueous Systems. Part 2. Light Lanthanides (Ce-Eu)),* **44**,013102 (2015).
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101	M. Góral, D. G. Shaw, A. Maczynski, B. Wisniewska-Goclowska and P. Oracz *IUPAC-NIST Solubility Data Series. 101. Alcohols + Hydrocarbons + Water. Part 1. C_4-C_{10} Alcohols*, JPCRD **43**, 023101 (2014).
102	W.E. Acree, Jr. *IUPAC-NIST Solubility Data Series. 102. Solubility of Nonsteroidal Anti-inflammatory Drugs (NSAIDs) in Both Neat Organic Solvents and Organic Solvent Mixtures,* JPCRD **43**, 023102 (2014).
103	H.L. Clever, R. Battino, H. Miyamoto, Y. Yampolski and C.L. Young, *IUPAC-NIST Solubility Data Series. 103. Oxygen and Ozone in Water, Aqueous Solutions, and Organic Liquids (Supplement to Solubility Data Series Volume 7,* JPCRD **43**, 033102 (2014).

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Solid-Liquid Solubility Report 2015: material

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2014	100-1	Rare Earth Metal Fluorides in Water and Aqueous Systems. Part 1. Scandium Group (Sc, Y, La)	JPCRD 2014, 43, 013105	Mioduski, T; Guminski, C; Zeng, D
2014	100-2	Rare Earth Metal Fluorides in Water and Aqueous Systems. Part 2. Light Lanthanides (Ce–Eu)	JPCRD 2015, 44, 013102	Mioduski, T; Guminski, C; Zeng, D

Beryllium compounds (Jacks volume)

I will attach the original layout from Jack Lorimer of the Beryllium volume here in order to show the extension (Jacks record from Jan. 2011)

IUPAC-NIST Solubility Data Series. xx. Beryllium Compounds in Aqueous and Non-aqueous Media

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Contents

Total Compilations:
Total estimated Critical Evaluations:
Total estimated pages:

3.8.1 $Be_3(IO_5)_2 + H_5IO_6 + H_2O$
3.8.2 $Be_3(IO_5)_2 + (NH_4)_2H_3IO_6 + H_2O$

3.9 $Be(NO_5)_2$ in Aqueous Systems
3.9.1 $Be(NO_3)_2 + H_2O$
3.9.2 $Be(NO_3)_2 + HNO_3 + H_2O$
3.9.3 $Be(NO_3)_2 + LiNO_3 + H_2O$
3.9.4 $Be(NO_3)_2 + Zn(NO_3)_2 + H_2O$
3.9.5 $Be(NO_3)_2 + Ce(NO_3)_3 + H_2O$
3.9.6 $Be(NO_3)_2 + UO_2(NO_3)_2; + H_2O$
3.9.7 $Be(NO_3)_2 + Be(OH)_2 + H_2O$
3.9.8 $Be(NO_3)_2 + Be(OH)_2 + H_2O$

3.10 Be Phosphates in Aqueous Systems
3.10.1 $BeNH_4PO_4 + H_2O$
3.10.2 $Be_3(PO_4)_2 + HCl + HNO_3 + H_2O$
3.10.3 $BeNH_4PO_4 + HCl + HNO_3 + H_2O$
3.10.4 $Be_3(PO_4)_2 + NH_4BePO_4; + H_2O$
3.10.5 $BeNH_4PO_4 + H_2O$

3.11 $BeCl_2$ in Aqueous Systems
3.11.1 $BeCl_2 + H_2O$
3.11.2 $BeCl_2 + HCl + H_2O$
3.11.3 $BeCl_2 + LiCl + H_2O$
3.11.4 $BeCl_2 + RbCl + H_2O$
3.11.5 $BeCl_2 + CsCl + H_2O$
3.11.6 $BeCl_2 + MgCl_2 + H_2O$
3.11.7 $BeCl_2 + CaCl_2 + H_2O$
3.11.8 $BeCl_2 + BaCl_2 + H_2O$
3.11.9 $BeCl_2 + ZnCl_2 + H_2O$
3.11.10 $BeCl_2 + CdCl_2 + H_2O$
3.11.11 $BeCl_2 + HgCl_2 + H_2O$
3.11.12 $BeCl_2 + CuCl_2 + H_2O$
3.11.13 $BeCl_2 + InCl_3 + H_2O$
3.11.14 $BeCl_2 + CH_4N_2O; + H_2O$

3.12 $BeCl_2$ in Non-aqueous Systems
3.12.1 $BeCl_2 + C_4H_{10}O$
3.12.2 $BeCl_2$ + Organic solvents
3.12.3 $BeCl_2$+ HCl + C_2H_6O
3.12.4 $BeCl_2 + BeC_4H_{10}O_2; + C_2H_6O$
3.12.5 $BeCl_2C_8H_{20}O_2 + AlCl_3C_4H_{10}O; + C_4H_{10}O$

3.13 BeF_2 in Aqueous Systems
3.13.1 BeF_2 + HF
3.13.2 $BeF_2 + NaF + H_2O$
3.13.3 $BeF_2 + RbF + H_2O$
3.13.4 $BeF_2 + NH_4F + H_2O$
5.41 BeF_2 + HF + CH_4O ??

3.14 $NaBeF_4$ in Aqueous Systems
3.14.1 $Na_2BeF_4 + H_2O$
3.14.2 $Na_2BeF_4 + NaF + H_2O$
3.14.3 $Na_2BeF_4 + Na_2SO_4 + H_2O$
3.14.4 $Na_2BeF_4 + C_2H_3O_2Na + C_2H_6O; + H_2O$

3.15 NH_4BeF_3 in Aqueous Systems
3.15.1 $NH_4BeF_3 + (NH_4)_2SO_4 + H_2O$
3.15.2 $(NH_4)_2BeF_4 + Na_2BeF_4 + H_2O$
3.15.3 $(NH_4)_2BeF_4 + K_2BeF_4 + H_2O$

3.15.4 $(NH_4)_2BeF_4 + NH_4MnF_3 + H_2O$

3.16 $MBeF_4$ in Aqueous Systems, M = Mg, Zn, Cd, Ni, Co, Cu

3.16.1 $MgBeF_4 + H_2O$

3.16.2 $ZnBeF_4 + H_2O$

3.16.3 $CdBeF_4 + H_2O$

3.16.4 $NiBeF_4 + H_2O$

3.16.5 $CoBeF_4 + H_2O$

3.16.6 $CuBeF_4 + H_2O$

Proposal to split off into

Part 1 : BeSO4

Part 2: BeSeO4

BeCl2-H_2O shall be included in the new project proposal of Boris Krumgalz about Alkaline Earth Chlorides – binary systems

How to proceed with the other beryllium systems (chlorides, nitrates, BeF_4^{2-} , non-aqueous BeCl2- etc) has to be clarified.

It is also not quite clear, wether the compilation sheets are complete for these systems

Heinz Gamsjäger indicated to be ready to help in this work, however is oculied until the end of next year with other projects.

Alkaline Earth Chloride – Water

Boris Krumgalz suggested a volume on Alkaline Earth Chlroides – Water systems between -25 and + 100 °C.

Extension to cover the complete temperature range should be discussed with inclusion of further project memebers (maybe W. Voigt, D. Zeng), further reviewer (for high T-p range: V. Valyashko).

Report of the Liquid-Liquid Group
Solubility and Equilibrium Data Subcommittee
International Union of Pure and Applied Chemistry

Prepared by D Shaw
Prior to 2015 Meeting of SSED

Volumes Published Since Last Meeting:

None

Current Projects:

2011-43-1-500 Hydrocarbon-Alcohol-Water Systems

Part 1 was published as Marian Góral, David G. Shaw, Andrzej Mączyński, Barbara Wiśniewska-Gocłowska and Paweł Oracz "**Alcohols + Hydrocarbons + Water**"Part 1. "C4-C10 Alcohols", *J. Phys. Chem. Ref. Data* 43, 023101 (2014); http://dx.doi.org/10.1063/1.4867621. Parts 2 and 3 are in preparation.

2012-31-1-500 Web-site Modernization Project

This project was funded in February 2013 and is well underway. The Task Group has communicated by email and Skype conference call. The web pages have been brought up to date and are again useful for internal and external communication. Further modifications to better reflect the full scope of SSED activities are being considered by the Task Group and will be presented at the Prague meeting. Changes in the composition of the Task Group may be proposed.

Stability Constant Sub-Committee Report, August, 2015

G. T. Hefter

(Emailed to Clara 27/8/15)

The Stability Constant Sub-Committee has two active projects at this juncture.

1. *Humic-Metal Binding Constants Database* (Project #2008-025-1-500), M. Filella Task Group Chair, continues to make slow progress mainly because of the retirement of some of the participants. Data on the interaction of humic substances with 'strategic elements' are now being collected and extracted within the framework of two Master theses at the University of Geneva.

2. "*Critical Evaluation of Thermodynamic Data of Sulfate Complexes in Solution*" (Project #2012-008-1-500). Participants are Dr. G. Hefter (Task Group Chair) and Dr. C. Guminski, University of Warsaw, Poland. Dr. D. Meyrick, formerly of Murdoch University, has had to retire from the project due to a change of employment. Dr Shane Peterson of Murdoch University has been funded on a casual basis by Dr Hefter, from his own resources, to assist with bibliographic searching. Most of the literature has now been obtained and compilation work has commenced. Progress on the latter is slow due to the other commitments of the participants.

3. A new proposal from Prof Ivo Leito, University of Tartu, Estonia, on pK_a values in nonaqueous solvents is currently under consideration by the Analytical Division of IUPAC.

In Memoriam: John William Lorimer

John (Jack) William Lorimer passed away peacefully at the age of 86 at University Hospital on Sunday, 1 February 2015. Born in Oshawa, Ontario, Jack attended the University of Toronto, where he obtained his Ph.D. in Chemistry. After positions in Leiden, The Netherlands, and with the National Research Council in Halifax, Nova Scotia, Jack joined the University of Western Ontario, where he taught and did research in the Chemistry Department until his retirement.

Jack Lorimer and his wife Shirley in 2002, during the 10th International Symposium on Solubility Phenomena (ISSP) in Varna, Bulgaria.

In IUPAC, Jack made major and very broad contributions over many years, starting in 1979. He was a very active member in the Analytical Chemistry Division, in the former Solubility Data Commission (SDC, also known as Commission V.8), and later and to this day, in the Subcommittee on Solubility and Equilibrium Data (SSED). The beginning of the SDC is linked to Jack's initial IUPAC activities: at the 1979 IUPAC General Assembly, in Davos, Switzerland, the SDC was created and Jack was appointed as co-secretary together with Lewis Herman Gevantman, while Steven Kertes was the first chair. Jack was co-secretary of this commission until 1983, and later became chair from 1988 to 1991.

In 1984 Jack Lorimer hosted the 1st International Symposium on Solubility Phenomena (ISSP), in London, Ontario. He was considered an excellent scientific and social host, running the conference very smoothly. For the next thirty years, he actively participated in all the ISSP either as a member of the scientific commissions or as speaker, editor, or IUPAC representative.

Since the beginning of SDC, the compilation and critical evaluation of solubility data was one of the main goals. This work is published in the volumes of the Solubility Data Series (SDS). Steven Kertes was the first editor-in-chief, starting in 1979, and Jack took that position in 1988 following the unexpected death of Steven Kertes. From 1988 to 1991 Jack accumulated the functions of chair of the Commission and editor-in-chief of the SDS, a work that he continued until 1996, always with the same levels of focus and enthusiasm. Under Jack's editorship, twenty five SDS volumes were published. The publication of the SDS continues (103 volumes published to this day), a tribute to the effort, discipline, and leadership that Jack brought to this task.

During all his life and his entire IUPAC tenure, Jack was an active member and helpful advisor. The members of the solubility community will remember him as a great scientist, demanding always the highest standards, but also as a kind, warm, and excellent person, a great friend on whom we could always rely. Jack was always ready to help, although this often meant that his own projects had to take second priority. His last project, "The solubility of beryllium sulfate and other beryllium compounds in aqueous and non-aqueous media" was left almost finished. This was typical of Jack's selfless approach. He left a deep impression on all members of the IUPAC Commission V.8 that all subsequent chairs have continued, pursuing high scientific standards in a pleasant human environment.

Jack was also a member of the IUPAC Bureau from 1994 to 2001, member (1999-2001) and chair (2002-3) of the Project Committee, and member (1996-2003) and chair (2004-9) of the Interdivisional Committee on Terminology, Nomenclature and Symbols (ICTNS). Perhaps less known to the IUPAC community at large is that, while a member of the Bureau, it was Jack who first proposed the IUPAC Fellows scheme. Just 20 years ago, Jack chaired a Committee on Affiliate Membership, formed by the Bureau in 1995. Along with some changes in the Affiliate Membership Program, the Committee proposed that leaders in IUPAC, including chairs of committees and commissions, be made Fellows when their terms expired. The idea was strongly supported and broadened into what it is today, a way to recognize all IUPAC service.

Jack was a Fellow of The Chemical Institute of Canada, and also had a long involvement with The Electrochemistry Society. Jack was a world class researcher in various areas of physical chemistry, including thermodynamics of liquids, transport phenomena in membranes, and electrochemistry, and has published over sixty papers in these fields. He was a lifelong birder and avid naturalist with the McIlwraith Field Naturalists of London (now Nature London) and lived a life of boundless curiosity and kindness. He will be greatly missed.

We present our heartfelt condolences to his family, and in particular to his wife Shirley who many of us have had the privilege to meet at various IUPAC events.

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