

# Curriculum vitae for Jon Petter Omtvedt

as per April 2018

## PERSONAL INFORMATION

Family name, First name: **Omtvedt, Jon Petter**

Date of birth: **28<sup>th</sup> February 1962**

Sex: Male

Nationality: Norwegian

ORCID Author ID: 6602734505

URL for personal web site: <http://www.mn.uio.no/kjemi/english/people/aca/jonpo/index.html>

## EDUCATION

1995            PhD: **Disputation date: 15<sup>th</sup> May 1995.**  
Department of Chemistry, University of Oslo, Norway

1989            Master  
Department of Chemistry, University of Oslo, Norway

## CURRENT AND PREVIOUS POSITIONS

2002-today    Professor  
Department of Chemistry, University of Oslo, Norway

2005-2013    Employed as a "reverse Prof. II" in a 5% position at the Institute for Energy Technology (IFE) at Kjeller outside Oslo.

1995-2002    1<sup>st</sup> amanuensis (associate professor)  
Department of Chemistry, University of Oslo, Norway

## MOBILITY (*research stays abroad lasting more than three months*) (if applicable)

2000-2001    13 month sabbatical at Lawrence Berkeley National Laboratory working in Prof. Darleane Hoffman's group. Funded by UiO and the Norwegian Research Council

1990-today    About 6-10 weeks per year has been spent at international research labs to participate in joint experiments (mostly on SHEs) (OSIRIS in Studsvik, LBNL in Berkeley, PSI in Villigen, GSI in Darmstadt, TRIGA in Mainz, RIKEN in Wako).

## SUPERVISION OF GRADUATE STUDENTS AND RESEARCH FELLOWS (if applicable)

1995-today    17 + 1 on-going MSc (as main supervisor), 4 MSc (cosupervisor), 4 + 1 on-going PhD, 6 post docs. Department of Chemistry, University of Oslo, Norway

## TEACHING ACTIVITIES (if applicable)

1989-today    Teaching radiochemistry courses and undergraduate chemistry courses at Department of Chemistry, UiO.

2002-today    Responsibility for organizing teaching of all Nuclear and Radiochemistry courses, including radiation protection, at Department of Chemistry, UiO.

## ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)

2005            Hosted a 3-day workshop sponsored by the European Science Foundation (ESF) on the Chemistry of the Transactinide Elements in October in Oslo, Norway, 30 participants.

## INSTITUTIONAL RESPONSIBILITIES (if applicable)

2005-today    Head of the Nuclear Chemistry Group (until 2015 the Nuclear Chemistry Section) at Department of Chemistry, UiO

2005-2011    Head of the UiO Centre for Accelerator Based Research and Energy Physics (Norwegian acronym "SAFE"), Faculty of Mathematics and Natural Sciences, UiO

2012-today    Responsible for radiation protection, including training, at the Department of Chemistry, UiO

2010-2015    Member of the Department of Chemistry Group-Leader team

### COMMISSIONS OF TRUST (if applicable)

- 2016-today Chairman of the Nuclear and Radiochemistry Division of EuCheMS (the European Chemical Society)
- 2011-today Norwegian Representative since 2011, on behalf of the Norwegian Chemical Society, to the Division of Nuclear and Radiochemistry at EuCheMS
- 2018-today Chairman of the Norwegian Network for Hydrometallurgy
- 2016-today Vice-chairman of the European network for Nuclear and Radiochemistry Education and Training

### MEMBERSHIPS OF SCIENTIFIC SOCIETIES (if applicable)

- 2008-today Member of American Chemical Society
- 2011-today Member of Norwegian Chemical Society

### MAJOR COLLABORATIONS (if applicable)

- 2004-today TASCAs collaboration at GSI in Darmstadt, Germany. Participated right from the planning stage in this collaboration, which built and is operating the gas-filled separator TASCAs dedicated to SHE chemistry and physics research. Collaboration is headed by Prof. C. Düllmann (Johannes Gutenberg-Universität, Institut für Kernchemie, Mainz, Germany)

### CAREER BREAKS (if applicable)

- 2005-2011 The administrative burden of the assignment as Head of the UiO *Centre for Accelerator Based Research and Energy Physics* (Faculty of Mathematics and Natural Sciences, UiO) reduced time to participate in and *not least concentrate on* research significantly. I estimate that it removed the equivalent of about 4 years from my research career.
- 2012-today Responsibility for radiation protection, including training, at the Department of Chemistry, UiO since 2012, in addition to normal teaching, administrative and supervisor duties, have again reduced my ability to perform research significantly. I estimate that it removed the equivalent of about 1.5 years from my research career.

### Track record

My publication list include more than 59 journal publications, in addition to a large number of talks and contributions to international workshops and conferences. The most recent (since 2006) plus the most important publications are listed below:

- J11 J.P. Omtvedt, B. Fogelberg, H. Mach, D. Jerrestam, M. Hellström, K. I. Erokhina, and V. I. Isakov: "The effective charges and octupole collectivity in the  $^{132}\text{Sn}$  region", *Phys. Rev. Lett.* 75 3090 (1995). 56 citations (*Scopus*).
- J15 J.P. Omtvedt, J. Alstad, K. Eberhardt, K. Fure, R. Malmbeck, M. Mendel, A. Nähler, G. Skarnemark, N. Trautmann, N. Wiehl, B. Wierczinski: "Review of the SISAK System in Transactinide Research - Recent Developments and Future Prospects", *Journ. Alloys. Compounds.* 271 303 (1998). 16 citations (*Scopus*).
- J20 L. Stavsetra and J.P. Omtvedt: "Detection Of Transactinides with  $\alpha$  Liquid Scintillation", in Proceedings to the International Conference on Advances in Liquid Scintillation Spectrometry 2001, 7-11 May 2001, Karlsruhe, Germany; published in *Radiocarbon*, University of Arizona, Tucson, Arizona, USA. ISBN 0 9638314 4 5. p. 25-33 (2002). 27 citations (*Scopus*).
- J22 J.P. Omtvedt, J. Alstad, H. Breivik, J.E. Dyve, K. Eberhardt, C.M. Folden III, T. Ginter, K.E. Gregorich, E.A. Hult, M. Johansson, U.W. Kirbach, D.M. Lee, M. Mendel, A. Nähler, V. Ninov, L.A. Omtvedt, J.B. Patin, G. Skarnemark, L. Stavsetra, R. Sudowe, N. Wiehl, B. Wierczinski, A. Wilk, P.M. Zielinski, J.V. Kratz, N. Trautmann, H. Nitsche, D.C. Hoffman: "SISAK Liquid Liquid Extraction Experiments with Preseparated  $^{257}\text{Rf}$ " *Journ. Nucl. Radiochem. Sciences* 3, 121 (2002). 32 citations (*J-Stage*).

- J29 L. Stavsetra, K. E. Gregorich, J. Alstad, H. Breivik, K. Eberhardt, C. M. Folden III, T. N. Ginter, M. Johansson, U. W. Kirbach, D. M. Lee, M. Mendel, L. A. Omtvedt, J. B. Patin, G. Skarnemark, R. Sudowe, P. A. Wilk, P. M. Zielinski, H. Nitsche, D. C. Hoffman, J. P. Omtvedt: "Liquid scintillation detection of pre-separated  $^{257}\text{Rf}$  with the SISAK system" *Nuclear Instruments & Methods in Physics Research A* 543, 509 (2005). *27 citations (Scopus)*.
- J34 **J. P. Omtvedt**, J. Alstad, T. Bjørnstad, Ch. E. Düllmann, K. E. Gregorich, D. C. Hoffman, H. Nitsche, K. Opel, D. Polakova, F. Samadani, F. Schulz, G. Skarnemark, L. Stavsetra, R. Sudowe, L. Zheng: "Chemical Properties of the Transactinide Elements Studied in Liquid Phase with SISAK", *Eur Phys. J. D* 45 97 (2007) (DOI: 10.1140/epjd/e2007 00214 6). *16 citations (Scopus)*.
- J35 L. Zheng, J. Alstad, T. Bjørnstad, D. Poláková, L. Stavsetra, and **J. P. Omtvedt**: "Extraction of Nb and Ta, homologues of Db, from sulphuric acid solutions with TOA in toluene using SISAK", *Radiochim. Acta* 96, 41 (2008) (DOI 10.1524/ract.2008.1463). *2 citations (Scopus)*.
- J39 Ch.E. Düllmann, M. Schädel, A. Yakushev, A. Türler, K. Eberhardt, J.V. Kratz, D. Ackermann, L. L. Andersson, M. Block, W. Bröchle, J. Dvorak, H.G. Essel, P.A. Ellison, J. Even, J.M. Gates, A. Gorshkov, R. Graeger, K.E. Gregorich, W. Hartmann, R. D. Herzberg, F.P. Heßberger, D. Hild, A. Hübner, E. Jäger, J. Khuyagbaatar, B. Kindler, J. Krier, N. Kurz, S. Lahiri, D. Liebe, B. Lommel, M. Maiti, H. Nitsche, **J.P. Omtvedt**, E. Parr, D. Rudolph, J. Runke, B. Schausten, E. Schimpf, A. Semchenkov, J. Steiner, P. Thörle Pospiech, J. Uusitalo, M. Wegrzecki, N. Wiehl: "Production and decay of element 114: high cross sections and the new nucleus  $^{277}\text{Hs}$ ", *Phys. Rev. Lett.* 104, 252701 (2010). *149 citations (Scopus)*.
- J40 F. Samadani, J. Alstad, T. Bjørnstad, L. Stavsetra, **J. P. Omtvedt**: "Development of a SISAK extraction system for chemical studies of element 108, hassium", *Radiochim. Acta*, **98**, 757 (2010). *4 citations (Scopus)*.
- J42 J. Gates, Ch. E. Düllmann, A. Yakushev, A. Turler, K. Eberhardt, J. V. Kratz, D. Ackermann, L. L. Andersson, M. Block, W. Bruchle, J. Dvorak, H. G. Essel, P. A. Ellison, J. Even, U. Forsberg, J. Gellanki, A. Gorshkov, R. Graeger, K. E. Gregorich, W. Hartmann, R. D. Herzberg, F. P. Hessberger, D. Hild, A. Hubner, E. Jager, J. Khuyagbaatar, B. Kindler, J. Krier, N. Kurz, S. Lahiri, D. Liebe, B. Lommel, B; M. Maiti, H. Nitsche, **J. P. Omtvedt**, E. Parr, D. Rudolph, J. Runke, H. Schaffner, B. Schausten, E. Schimpf, A. Semchenkov, J. Steiner, P. Thorle-Pospiech, J. Uusitalo, M. Wegrzecki, N. Wiehl: "First superheavy element experiments at the GSI recoil separator TASCA: The production and decay of element 114 in the  $\text{Pu-244}(\text{Ca-48}, 3\text{-4n})$  reaction", *Phys. Rev.* **C83**, 054618 (2011). *79 citations (Scopus)*.
- J47 D. Rudolph, U. Forsberg, P. Golubev, L.G. Sarmiento, A. Yakushev, L.-L. Andersson, A. Di Nitto, Ch.E. Düllmann, J.M. Gates, K.E. Gregorich, C.J. Gross, F.P. Heßberger, R.-D. Herzberg, J. Khuyagbaatar, J.V. Kratz, K. Rykaczewski, M. Schädel, S. Åberg, D. Ackermann, M. Block, H. Brand, B.G. Carlsson, D. Cox, X. Derkx, K. Eberhardt, J. Even, C. Fahlander, J. Gerl, E. Jäger, B. Kindler, J. Krier, I. Kojouharov, N. Kurz, B. Lommel, A. Mistry, C. Mokry, H. Nitsche, **J.P. Omtvedt**, P. Papadakis, I. Ragnarsson, J. Runke, H. Schaffner, B. Schausten, P. Thörle-Pospiech, T. Torres, T. Traut, N. Trautmann, A. Türler, A. Ward, D.E. Ward, N. Wiehl: "Spectroscopy of Element 115 Decay Chains", *Phys. Rev. Lett.* **111**, 112502 (2013). *68 citations (Scopus)*.
- J48 J. Khuyagbaatar, A. Yakushev, C.E. Düllmann, D. Ackermann, L.L. Andersson, M. Asai, M. Block, R.A. Boll, H. Brand, D. M. Cox, M. Dasgupta, X. Derkx, X; A. Di Nitto, K. Eberhardt, J. Even, M. Evers, C. Fahlander, U. Forsberg, J.M. Gates, N. Gharibyan, P. Golubev, K.E. Gregorich, J. H. Hamilton, W. Hartmann, R.D. Herzberg, F.P. Heßberger, D.J. Hinde, J. Hoffmann, R. Hollinger, A. Hubner, E. Jager, B. Kindler, J.V. Kratz, J. Krier, N. Kurz, M. Laatiaoui, S. Lahiri, R. Lang, B. Lommel, M. Maiti, K. Miernik, S. Minami, A. Mistry, C. Mokry, H. Nitsche, **J.P. Omtvedt**, G. K. Pang, P. Papadakis, D. Renisch, J. Roberto, D. Rudolph, J. Runke, K.P. Rykaczewski, L.G. Sarmiento, M. Schadel, B. Schausten, A. Semchenkov, D.A. Shaughnessy, P. Steinegger, J. Steiner, E.E. Tereshatov, P. Thorle-Pospiech, K. Tinschert, T. Torres De Heidenreich, N. Trautmann, A. Turler, J. Uusitalo, J; D.E. Ward, M. Wegrzecki, N. Wiehl, S.M. Van Cleve, V. Yakusheva: " $^{48}\text{Ca}+^{249}\text{Bk}$  fusion reaction leading to element  $Z=117$ : Long-lived  $\alpha$ -decaying  $^{270}\text{Db}$  and discovery of  $^{266}\text{Lr}$ ", *Phys. Rev. Lett.* **112** DOI:172501.(17) (2014). *94 citations (Scopus)*.
- J50 A. Yakushev, J. M. Gates, A. Türler, M. Schädel, C. E. Düllmann, D. Ackermann, L.-L. Andersson, M. Block, W. Bröchle, J. Dvorak, K. Eberhardt, H. G. Essel, J. Even, U. Forsberg, A. Gorshkov, R. Graeger, K. E.

- Gregorich, W. Hartmann, R.-D. Herzberg, F. P. Heßberger, D. Hild, A. Hübner, E. Jäger, J. Khuyagbaatar, B. Kindler, J. V. Kratz, J. Krier, N. Kurz, B. Lommel, L. J. Niewisch, H. Nitsche, **J. P. Omtvedt**, E. Parr, Z. Qin, D. Rudolph, J. Runke, B. Schausten, E. Schimpf, A. Semchenkov, J. Steiner, P. Thörle-Pospiech, J. A. Uusitalo, M. Wegrzecki, N. Wiehl: "Superheavy element flerovium (Element 114) is a volatile metal", *Inorganic Chemistry* **53** p1624 (2014). *42 citations (Scopus)*.
- J53 Ooe, Kazuhiro; Abdo, Mohamed Fathy Attallah; Asai, M; Goto, N; Sen Gupta, Nalinava; Haba, H.; Huang, M; Kanaya, J.; Kaneya, Y.; Kasamatsu, Y.; Kitatsuji, Y.; Kitayama, Y.; Koga, K.; Komori, Y; Koyama, T.; Kratz, J.V.; Lerum, Hans Vigeland; Miyashita, S.; Oshimi, Y.; Pershina, V; Sato, D.; Sato, T. K.; Shigekawa, Y.; Shinohara, A.; Tanaka, A.; Toyoshima, A.; Tsukada, K; Tsuto, S.; Yokokita, T.; Yokoyama, A.; **Omtvedt, Jon Petter**; Nagame, Y.; Schadel, M. "Development of a new continuous dissolution apparatus with a hydrophobic membrane for superheavy element chemistry": *Journal of Radioanalytical and Nuclear Chemistry* **303** p1317 (2015). *3 citations (Scopus)*.
- J55 Toyoshima, A.; Ooe, K.; Miyashita, S.; Asai, M; Abdo, Mohamed Fathy Attallah; Goto, N; Sen Gupta, Nalinava; Haba, H.; Huang, M; Kanaya, J.; Kaneya, Y.; Kasamatsu, Y.; Kitatsuji, Y.; Kitayama, Y.; Koga, K.; Komori, Y; Koyama, T.; Kratz, J.V.; Lerum, Hans Vigeland; Oshimi, Y.; Pershina, V; Sato, D.; Sato, T. K.; Shigekawa, Y.; Shinohara, A.; Tanaka, A.; Tsukada, K; Tsuto, S.; Yokokita, T.; Yokoyama, A.; **Omtvedt, Jon Petter**; Nagame, Y.; Schädel, M. "Chemical studies of Mo and W in preparation of a seaborgium (Sg) reduction experiment using MDG, FEC, and SISAK", *Journal of Radioanalytical and Nuclear Chemistry* **303** p1169 (2015). *2 citations (Scopus)*.
- J56 U. Forsberg, D. Rudolph, L.-L. Andersson, A. Di Nitto, Ch.E. Düllmann, C. Fahlander, J.M. Gates, P. Golubev, K.E. Gregorich, C.J. Gross, R.-D. Herzberg, F.P. Heßberger, J. Khuyagbaatar, J.V. Kratz, K. Rykaczewski, L.G. Sarmiento, M. Schädel, A. Yakushev, S. Åberg, D. Ackermann, M. Block, H. Brand, B.G. Carlsson, D. Cox, X. Derkx, J. Dobaczewski, K. Eberhardt, J. Even, J. Gerl, E. Jäger, B. Kindler, J. Krier, I. Kojouharov, N. Kurz, B. Lommel, A. Mistry, C. Mokry, W. Nazarewicz, H. Nitsche, **J.P. Omtvedt**, P. Papadakis, I. Ragnarsson, J. Runke, H. Schaffner, B. Schausten, Yue Shi, P. Thörle-Pospiech, T. Torres, T. Traut, N. Trautmann, A. Türler, A. Ward, D.E. Ward, N. Wiehl: "Recoil- $\alpha$ -fission and recoil- $\alpha$ - $\alpha$ -fission events observed in the reaction  $^{48}\text{Ca}+^{243}\text{Am}$ ", *Nuclear Physics* **A953** p117 (2016). [10.1016/j.nuclphysa.2016.04.025](https://doi.org/10.1016/j.nuclphysa.2016.04.025), *14 citations (Scopus)*.
- J57 J. Khuyagbaatar, A. Di Nitto, A. Dieter, L.-L. Andersson, E. Badura, M. Block, H. Brand, D. Cox, C. Düllmann, K. Eberhardt, J. Dvorak, N. Esker, J. Even, C. Fahlander, U. Forsberg, J. Gates, P. Golubev, O. Gothe, K. Gregorich; W. Hartmann, R.-D. Herzberg, F. Hessberger, J. Hoffmann, R. Hollinger, A. Huebner, E. Jäger, B. Kindler, I. Kojouharov, J. Kratz, J. Krier, N. Kurz, S. Lahiri, B. Lommel, M. Maiti, R. Maendl, E. Merchan, S. Minami, A. Mistry, C. Mokry, H. Nitsche, **J. P. Omtvedt**, G. Pang, D. Renisch, D. Rudolph, J. Runke, L. Sarmiento, M. Schädel, H. Schaffner, G. Schausten, A. Semchenkov, J. Steiner, P. Thörle-Pospiech, N. Trautmann, A. Tuerler, J. Uusitalo, D. Ward, M. Wegrzecki, P. Wieczorek, N. Wiehl, A. Yakushev, V. Yakusheva, P. Ellison, S. Klein, I. Conrad: "Study of non-fusion products in the  $^{50}\text{Ti}+^{249}\text{Cf}$  reaction", submitted to *Physics Letters B* in March 2018
- J58 L. Lens, A. Yakushev, Ch. E. Düllmann, M. Asai, J. Ballof, M. Block, H. M. David, J. Despotopulos, A. Di Nitto, K. Eberhardt, J. Even, M. Götz, S. Götz, H. Haba, L. Harkness-Brennan, F. P. Heßberger, R.-D. Herzberg, J. Hoffmann, A. Hübner, E. Jäger, D. Judson, J. Khuyagbaatar, B. Kindler, Y. Komori, J. Konki, J. V. Kratz, J. Krier, N. Kurz, M. Laatiaoui, S. Lahiri, B. Lommel, M. Maiti, A. K. Mistry, C. Mokry, K. Moody, Y. Nagame, **J. P. Omtvedt**, P. Papadakis, V. Pershina, J. Runke, M. Schädel, P. Scharrer, T. Sato, D. Shaughnessy, B. Schausten, P. Thörle-Pospiech, N. Trautmann, K. Tsukada, J. Uusitalo, A. Ward, M. Wegrzecki, N. Wiehl, and V. Yakusheva: "Online chemical adsorption studies of Hg, Tl, and Pb on SiO<sub>2</sub> and Au surfaces in preparation for chemical investigations on Cn, Nh, and Fl at TASCA", revised manuscript submitted to *Radiochim. Acta* (manuscript id RACT-17-2914) in April 2018.
- J59 H. L. Lerum, N. H. Andersen, D. Ø. Eriksen, E. W. Hansen, D. Petersen, G. Wibetoe, **J. P. Omtvedt**: "Study of Cadmium Extraction with Aliquat 336 from Highly Saline Solutions", revised manuscript submitted to *J. Solution Chem.* (Manuscript id #JOSL-D-17-00269R1) in April 2018.