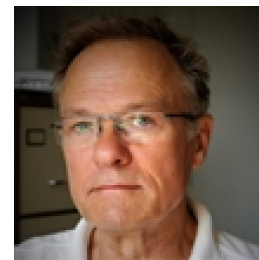


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## CV

Sven Tougaard earned the MS (1975) at the Technical University, Copenhagen, Denmark, and the PhD (1979) and dr. scient (1988) degrees in theoretical and experimental surface physics at Odense University, Denmark. He was post. doc. in USA and Germany (1978-84) and professor at the University of Southern Denmark since 1984. He founded the software company QUASES-Tougaard Inc. (1994) ([www.quases.com](http://www.quases.com)) which develops software for characterization of the composition and electronic properties of surface nanostructures by X-ray photoelectron spectroscopy (XPS) and reflection electron energy loss spectroscopy (REELS). Prof. Tougaard received the Fyns Stitstidendes Research Prize in 1987, the Rivière Prize awarded by the UK Surface Analysis Forum in 2007, "for work which has been judged outstanding in its continuing and lasting contribution to surface analysis", and the Albert Nerken Award by the American Vacuum Society in 2012 "for contributions to the development of improved methods to characterize thin-film nanostructures by X-ray photoelectron spectroscopy". His current research focuses on experimental and theoretical studies of phenomena induced by the electron-solid interaction at surfaces and in nanostructures and development of theory for practical experimental methods to determine the chemical composition and electronic properties of nanostructures by electron spectroscopy. He has conducted and participated in several EU supported international projects on these subjects, published more than 200 scientific papers that are cited more than 7000 times with an H-index = 42 and presented more than 60 invited talks at international conferences and workshops. He has a long-standing active scientific collaboration with several research institutes in Europe, USA, Korea and Japan. He is on the Steering Committee for ECASIA (European Conf. for Surface and Interface Analysis) (2002-) and has served on the program committees and advisory boards for more than 25 international conferences and workshops. He serves on the editorial board for the journals: J. Electron Spectroscopy (1990-2012), Surface and Interface Anal. (1989-), J. of Surface Analysis (1994-), and Surface Science Spectra (1991-).

## Publications

### **Using the inelastic background in hard x-ray photoelectron spectroscopy for a depth-resolved analysis of the CdS/Cu(In,Ga)Se<sub>2</sub> interface**

Hauschild, D., Steininger, R., Hariskos, D., Witte, W., Tougaard, S., Heske, C. & Weinhardt, L., 1. Dec 2021, In: Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films. 39, 6, 9 p., 063216.

### **QUASES-Inelastic electron mean free path calculator (by TPP2M formula)**

Tougaard, S. M., Nov 2021

### **Improved depth information from routine analysis of the inelastic background of XPS and HAXPES spectra using optimized two- and three-parameter cross-sections**

Zborowski, C. & Tougaard, S., 30. Sep 2021, (E-pub ahead of print) In: Surface and Interface Analysis.

### **Tutorial videos on the application of XPS inelastic background for characterization of composition and morphology of nano-structures**

Tougaard, S. M., 10. Sep 2021

### **Systematic and collaborative approach to problem solving using X-ray photoelectron spectroscopy**

Fairley, N., Fernandez, V., Richard-Plouet, M., Guillot-Deudon, C., Walton, J., Smith, E., Flahaut, D., Greiner, M., Biesinger, M., Tougaard, S., Morgan, D. & Baltrusaitis, J., 1. Sep 2021, In: Applied Surface Science Advances. 5, 9 p., 100112.

### **Inelastic electron scattering by the gas phase in near ambient pressure XPS measurements**

Pielsticker, L., Nicholls, R., Beeg, S., Hartwig, C., Klihm, G., Schlögl, R., Tougaard, S. & Greiner, M., Jul 2021, In: Surface and Interface Analysis. 53, 7, p. 605-617

**Inelastic background modelling applied to hard X-ray photoelectron spectroscopy of deeply buried layers: A comparison of synchrotron and lab-based (9.25 keV) measurements**

Spencer, B. F., Maniyarasu, S., Reed, B. P., Cant, D. J. H., Ahumada-Lazo, R., Thomas, A. G., Muryn, C. A., Maschek, M., Eriksson, S. K., Wiell, T., Lee, T. L., Tougaard, S., Shard, A. G. & Flavell, W. R., 1. Mar 2021, In: Applied Surface Science. 541, 148635.

**Practical guide to the use of backgrounds in quantitative XPS**

Tougaard, S., Jan 2021, In: Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films. 39, 23 p., 011201.

**Method to correct ambient pressure XPS for the distortion caused by the gas**

Tougaard, S. & Greiner, M., 15. Nov 2020, In: Applied Surface Science. 530, 147243.

**Determining nonuniformities of core-shell nanoparticle coatings by analysis of the inelastic background of X-ray photoelectron spectroscopy survey spectra**

Müller, A., Sparnacci, K., Unger, W. E. S. & Tougaard, S., Nov 2020, In: Surface and Interface Analysis. 52, 11, p. 770-777

**Universal inelastic electron scattering cross-section including extrinsic and intrinsic excitations in XPS**

Gnacadjia, E., Pauly, N. & Tougaard, S., Jul 2020, In: Surface and Interface Analysis. 52, 7, p. 413-421

**Erratum: Determining the Thickness and Completeness of the Shell of Polymer Core-Shell Nanoparticles by X-ray Photoelectron Spectroscopy, Secondary Ion Mass Spectrometry, and Transmission Scanning Electron Microscopy (The Journal of Physical Chemistry C (2019) 123:49 (29765–29775) DOI: 10.1021/acs.jpcc.9b09258)**

Müller, A., Heinrich, T., Tougaard, S., Werner, W. S. M., Hronek, M., Kunz, V., Radnik, J., Stockmann, J. M., Hodoroaba, V. D., Benemann, S., Nirmalanathan-Budau, N., Geißler, D., Sparnacci, K. & Unger, W. E. S., 13. Feb 2020, In: Journal of Physical Chemistry C. 124, 6, 1 p.

**Proliferation of Faulty Materials Data Analysis in the Literature**

Linford, M. R., Smentkowski, V. S., Grant, J. T., Brundle, C. R., Sherwood, P. M. A., Biesinger, M. C., Terry, J., Artyushkova, K., Herrera-Gómez, A., Tougaard, S., Skinner, W., Pireaux, J. J., McConville, C. F., Easton, C. D., Gengenbach, T. R., Major, G. H., Dietrich, P., Thissen, A., Engelhard, M., Powell, C. J. & 2 others, Gaskell, K. J. & Baer, D. R., Feb 2020, In: Microscopy and Microanalysis. 26, 1, p. 1-2 2 p.

**Effects of background gas composition and pressure on 1,4-polymyrcene (and polytetrafluoroethylene) spectra in near-ambient pressure XPS**

Patel, D. I., Matic, A., Schlaad, H., Bahr, S., Dietrich, P., Meyer, M., Thissen, A., Tougaard, S. M. & Linford, M. R., 2020, In: Surface Science Spectra. 27, 014005.

**Optical properties of molybdenum in the ultraviolet and extreme ultraviolet by reflection electron energy loss spectroscopy**

Pauly, N., Yubero, F. & Tougaard, S., 2020, In: Applied Optics. 59, 14, p. 4527-4532 6 p.

**Determining the Thickness and Completeness of the Shell of Polymer Core-Shell Nanoparticles by X-ray Photoelectron Spectroscopy, Secondary Ion Mass Spectrometry, and Transmission Scanning Electron Microscopy**

Müller, A., Heinrich, T., Tougaard, S., Werner, W. S. M., Hronek, M., Kunz, V., Radnik, J., Stockmann, J. M., Hodoroaba, V. D., Benemann, S., Nirmalanathan-Budau, N., Geißler, D., Sparnacci, K. & Unger, W. E. S., 12. Nov 2019, In: Journal of Physical Chemistry C. 123, 49, p. 29765-29775 11 p.

**Theoretical study toward rationalizing inelastic background analysis of buried layers in XPS and HAXPES**

Zborowski, C. & Tougaard, S. M., 1. Aug 2019, In: Surface and Interface Analysis. 51, 8, p. 857-873

**XPS primary excitation spectra of Zn 2p, Fe 2p, and Ce 3d from ZnO,  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>, and CeO<sub>2</sub>**

Pauly, N., Yubero, F., Espinós, J. P. & Tougaard, S., 1. Mar 2019, In: Surface and Interface Analysis. 51, 3, p. 353-360

**Determination of the input parameters for inelastic background analysis combined with HAXPES using a reference sample**  
Zborowski, C., Renault, O., Torres, A., Yamashita, Y., Grenet, G. & Tougaard, S., 2018, In: Applied Surface Science. 432, Part A, p. 60-70

**Impact of curing time on ageing and degradation of phenol-urea-formaldehyde binder**

Okhrimenko, D. V., Thomsen, A. B., Ceccato, M., Johansson, D. B., Lybye, D., Bechgaard, K., Tougaard, S. & Stipp, S. L. S., 2018, In: Polymer Degradation and Stability. 152, p. 86-94

**Improved XPS analysis by visual inspection of the survey spectrum**

Tougaard, S. M., 2018, In: Surface and Interface Analysis. 50, 6, p. 657-666

**Quantitative analysis of Yb 4d photoelectron spectrum of metallic Yb**

Pauly, N., Yubero, F. & Tougaard, S. M., 2018, In: Surface and Interface Analysis. 50, 11, p. 1168-1173

**Quantitative determination of elemental diffusion from deeply buried layers by photoelectron spectroscopy**

Tougaard, S. M., 2018, In: Journal of Applied Physics. 124, 8, 085115.

**Effective inelastic scattering cross-sections for background analysis in HAXPES of deeply buried layers**

Risterucci, P., Renault, O., Zborowski, C., Bertrand, D., Torres, A., Rueff, J-P., Ceolin, D., Grenet, G. & Tougaard, S. M., 2017, In: Applied Surface Science. 402, p. 78-85

**Novel applications of inelastic background XPS analysis: 3D imaging and HAXPES**

Tougaard, S. M., 2017, In: Journal of Surface Analysis. 24, 2, p. 107-114

**Optical properties and electronic transitions of zinc oxide, ferric oxide, cerium oxide, and samarium oxide in the ultraviolet and extreme ultraviolet**

Pauly, N., Yubero, F., Espinós, J. P. & Tougaard, S., 2017, In: Applied Optics. 56, 23, p. 6611-6621

**Thickness and structure of thin films determined by background analysis in hard X-ray photoelectron spectroscopy**

Cui, Y-T., Tougaard, S. M., Oji, H., Son, J-Y., Sakamoto, Y., Matsumoto, T., Yang, A., Sakata, O., Song, H. & Hirose, I., 2017, In: Journal of Applied Physics. 121, 10 p., 225307.

**Band-Gap Widening at the Cu(In,Ga)(S,Se)<sub>2</sub> Surface: A Novel Determination Approach Using Reflection Electron Energy Loss Spectroscopy**

Hauschild, D., Handick, E., Göhl-Gusenleitner, S., Meyer, F., Schwab, H., Benkert, A., Pohlner, S., Palm, J., Tougaard, S. M., Heske, C., Weinhardt, L. & Reinert, F., 2016, In: ACS Applied Materials and Interfaces. 8, 32, p. 21101-21105

**Composition dependence of dielectric and optical properties of Hf-Zr-silicate thin films grown on Si(100) by atomic layer deposition**

Tahir, D., Oh, S. K., Kang, H. J. & Tougaard, S. M., 2016, In: Thin Solid Films. 616, p. 425-430

**Determination of electronic properties of nanostructures using reflection electron energy loss spectroscopy: Nano-metalized polymer as case study**

Deris, J., Hajati, S., Tougaard, S. M. & Zaporozhchenko, V., 2016, In: Applied Surface Science. 377, p. 44-47

**Quantitative analysis of Ni 2p photoemission in NiO and Ni diluted in a SiO<sub>2</sub> matrix**

Pauly, N., Yubero, F., García-García, F. J. & Tougaard, S. M., 2016, In: Surface Science. 644, p. 46-52

**Quantitative analysis of reflection electron energy loss spectra to determine electronic and optical properties of Fe-Ni alloy thin films**

Tahir, D., Oh, S. K., Kang, H. J. & Tougaard, S. M., 2016, In: Journal of Electron Spectroscopy and Related Phenomena. 206, p. 6-11

**Quantitative analysis of satellite structures in XPS spectra of gold and silver**

Pauly, N., Yubero, F. & Tougaard, S. M., 2016, In: Applied Surface Science. 383, p. 317-323

**Quantitative spectromicroscopy from inelastically scattered photoelectrons in the hard X-ray range**

Renault, O., Zborowski, C., Risterucci, P., Wiemann, C., Grenet, G., Schneider, C. M. & Tougaard, S. M., 2016, In: Applied Physics Letters. 109, 1, 5 p., 011602.

**Effects of cation compositions on the electronic properties and optical dispersion of indium zinc tin oxide thin films by electron spectroscopy**

Tougaard, S. M., 2015, In: Materials Research Bulletin. 62, p. 222-231 10 p.

**Primary excitation spectra in XPS and AES of Cu, CuO: Relative importance of surface and core hole effects**

Pauly, N. & Tougaard, S. M., 2015, In: Surface Science. 641, p. 326-329 20434.

**Determination of the Cu 2p primary excitation spectra for Cu, Cu<sub>2</sub>O and CuO**

Tougaard, S. M., 2014, In: Surface Science. 620, p. 17-22

**Electronic and optical properties of Fe, Pd, and Ti studied by reflection electron energy loss spectroscopy**

Tougaard, S. M., 2014, In: Journal of Applied Physics. 115, 243508 , 6 p., 243508 .

**Inelastic background analysis of HAXPES spectra: towards enhanced bulk sensitivity in photoemission**

Tougaard, S. M., 2014, In: Surface and Interface Analysis. 46, p. 906-910 5 p.

**LMM Auger primary excitation spectra of copper**

Tougaard, S. M., 2014, In: Surface Science. 630, p. 294-299 6 p.

**Modeling of X-ray photoelectron spectra-surface and core hole effects**

Tougaard, S. M., 2014, In: Surface and Interface Analysis. 46, 10-11, p. 920-923 4 p., DOI 10.1002/sia.5372.

**Morphology of Ferromagnetic Cobalt Nanoparticles Grown on Al<sub>2</sub>O<sub>3</sub> (0001) by Pulsed Laser Deposition**

Tougaard, S. M., 2014, In: Journal of Advanced Microscopy Research. 8, p. 1-6, p. 1-6 6 p.

**Probing deeper by Hard X-ray Photoelectron Spectroscopy**

Tougaard, S. M., 2014, In: Applied Physics Letters. 104, 5, 4 p., 051608.

**The growth of cobalt oxides on HOPG and SiO<sub>2</sub> surfaces: A comparative study**

Tougaard, S. M., 2014, In: Surface Science. 624, June, p. 145-153

**Effects of gas environment on electronic and optical properties of amorphous indium zinc tin oxide thin films**

Tougaard, S. M., 2013, In: Journal of Vacuum Science & Technology. A: International Journal Devoted to Vacuum, Surfaces, and Films. 31, 3, p. 031508-1 til 031508-7 8 p., 031508.

**Evaluation of robustness to surface conditions of the target factor analysis method for determining the dielectric function from reflection electron energy loss spectra: Application to GaAs**

Tougaard, S. M., 2013, In: Surface and Interface Analysis. 45, 6, p. 985-992 8 p.

**Factor analysis and advanced inelastic background analysis in XPS: Unraveling time dependent contamination growth on multilayers and thin films**

Tougaard, S. M., 2013, In: Surface Science. 616, p. 161-165 5 p.

**Sample-morphology effects on x-ray photoelectron peak intensities**

Tougaard, S. M., 2013, In: Journal of Vacuum Science & Technology. A: International Journal Devoted to Vacuum, Surfaces, and Films. 31, 2, p. 021402-1 to 021402-7 8 p., 021402.

**Surface analysis | X-ray Photoelectron Spectroscopy**

Tougaard, S. M., 2013, *Encyclopedia of Analytical Science*. Reedijk, J. (ed.). Elsevier, p. 400-409 11 p.

**Surface excitation parameter for allotropic forms of carbon**

Tougaard, S. M., 2013, In: Surface and Interface Analysis. 45, 4, p. 811-816

**Three-Dimensional X-Ray Photoelectron Tomography on the Nanoscale: Limits of Data Processing by Principal Component Analysis**

Hajati, S., Walton, J. & Tougaard, S., 2013, In: Microscopy and Microanalysis. 19, 3, p. 751-760

**Validity of automated x-ray photoelectron spectroscopy algorithm to determine the amount of substance and the depth distribution of atoms**

Tougaard, S. M., 2013, In: Journal of Vacuum Science & Technology. A: International Journal Devoted to Vacuum, Surfaces, and Films. 31, 3, p. 031503-1 to 031503-6 7 p., 031503.

**Comparison between surface excitation parameter obtained from QUEELS and SESINIPAC**

Tougaard, S. M., 2012, In: Surface and Interface Analysis. 44, p. 1147-1150

**Dielectric description of the angular dependence of the loss structure in core level photoemission**

Tougaard, S. M., 2012, In: Journal of Electron Spectroscopy and Related Phenomena. 185, p. 552-558

**Electronic and optical properties of Cu, CuO and Cu<sub>2</sub>O studied by electron spectroscopy**

Tougaard, S. M., 2012, In: Journal of Physics: Condensed Matter. 24, p. 175002 8 p.

**Electronic and optical properties of hafnium indium zinc oxide thin film by XPS and REELS**

Tougaard, S. M., 2012, In: Journal of Electron Spectroscopy and Related Phenomena. 185, p. 18-22 5 p.

**Electronic and optical properties of selected polymers studied by reflection electron spectroscopy**

Tougaard, S. M., 2012, In: Journal of Applied Physics. 111, p. 054101-1 -054101-7 8 p.

**Reflection electron energy loss spectroscopy for ultrathin gate oxide materials**

Tougaard, S. M., 2012, In: Surface and Interface Analysis. 44, p. 623-627 5 p.

**Software package to calculate the effects of the core hole and surface excitations on XPS and AES**

Tougaard, S. M., 2012, In: Surface and Interface Analysis. 44, p. 1114-1118 5 p.

**Controlled adhesion of Salmonella Typhimurium to poly(oligoethylene glycol methacrylate) grafts**

Mrabet, B., Mejri, A., Machouche, S., Gam-Derouich, S., Turmine, M., Mechouet, M., Lang, P., Bakala, H., Bakrouf, A., Tougaard, S. M. & Chehimi, M. M., 2011, In: Surface and Interface Analysis. 43, 11, p. 1436-1443

**Core hole and surface excitation correction parameter for XPS peak intensities**

Tougaard, S. M., 2011, In: Surface Science. 605, p. 1556-1562 7 p.

**Dielectric response functions of the (0001), and (1013) GaN single crystalline and disordered surfaces studied by reflection electron energy loss spectroscopy**

Tougaard, S. M., 2011, In: Journal of Applied Physics. 110, p. 043507-01-043507-07 8 p.

**Experimental verification of the shape of the excitation depth distribution function for AES**

Tougaard, S. M. & Jablonski, A., 2011, In: Journal of Vacuum Science & Technology. A: International Journal Devoted to Vacuum, Surfaces, and Films. A29, p. 051401-1 to 051401-10 11 p.

**On the ultrathin gold film used as buffer layer at the transparent conductive anode/organic electron donor interface**  
Tougaard, S. M., 2011, In: Gold Bulletin. 44, p. 199-205 7 p.

**Energy loss in XPS: Fundamental processes and applications for quantification, non-destructive depth profiling and 3D imaging**

Tougaard, S. M., 1. Jan 2010, In: Journal of Electron Spectroscopy and Related Phenomena. 178, p. 128-153 26 p.

**XPS for non-destructive depth profiling and 3D imaging of surface nanostructures**

Tougaard, S. M., 1. Jan 2010, In: Analytical and Bioanalytical Chemistry. 396, p. 2741-2755 15 p.

**An Application for Near Real-time Analysis of XPS Data**

Tougaard, S. M., 2010, In: Surface and Interface Analysis. 42, p. 1061-1065

**Electronic and Optical Properties of Al<sub>2</sub>O<sub>3</sub>/SiO<sub>2</sub> Thin Films grown on Si Substrate**

Tahir, D., Lan Kwon, H., Chung Shin, H., Oh, S. K., Kang, H. J., Heo, S., Gwan Chung, J., Cheol Lee, J. & Tougaard, S. M., 2010, In: Journal of Physics D: Applied Physics. 43, p. 255301 7 p.

**Electronic and optical properties of GIZO thin film grown on SiO<sub>2</sub>/Si substrates**

Tougaard, S. M., 2010, In: Surface and Interface Analysis. 42, p. 906-910

**Electronic and Optical Properties of La-aluminate Thin Films on Si (100)**

Tougaard, S. M., 2010, In: Surface and Interface Analysis. 42, p. 1566-1569 4 p.

**Energy loss function for Si determined from reflection electron energy loss spectra with factor analysis method**

Tougaard, S. M., 2010, In: Surface and Interface Analysis. 42, p. 1076-1081 6 p.

**Measurement of optical constants of Si and SiO<sub>2</sub> from reflection electron energy loss spectra using factor analysis method**

Tougaard, S. M., Jin, H., Shinotsuka, H., Yoshikawa, H., Iwai, H. & Tanuma, S., 2010, In: Journal of Applied Physics. 107, p. 083709-1 083709-11 11 p.

**Model for Monte Carlo simulations of reflection electron energy loss spectra applied to Silicon at energies between 300 and 2000 eV**

Tougaard, S. M., 2010, In: Surface and Interface Analysis. 42, p. 1100-1104

**Surface and core hole effects in X-ray photoelectron spectroscopy**

Tougaard, S. M., 2010, In: Surface Science. 604, p. 1193 1196 p.

**Surface excitation parameter for 12 semiconductors and determination of a general predictive formula**

Tougaard, S. M., 2010, In: Surface and Interface Analysis. 41, 9, p. 735-740 6 p.

**Determination of the effective surface region thickness and of Begrenzungseffect**

Tougaard, S. M., 1. May 2009, In: Surface Science. 603, p. 2158-2162 5 p.

**Dielectric and optical properties of Zr silicate thin films grown on Si(100) by atomic layer deposition**

Tougaard, S. M., 1. Jan 2009, In: Journal of Applied Physics. 106, p. 0841081-0841086 6 p.

**Surface excitation parameter for selected polymers**

Tougaard, S. M., 1. Jan 2009, In: Surface and Interface Analysis. 41, p. 23-26 4 p.

**Monte Carlo simulations of reflection electron energy loss spectra for Silicon and energies between 300 and 2000 eV**

Tougaard, S. M., 2009.

**Angular and Energy Dependences of Reflection Electron Energy Loss Spectra of Si**

Tougaard, S. M., 2009, In: e-Journal of Surface Science and Nanotechnology. 7, p. 199-202 4 p.

**Electronic and Optical Properties of La-aluminate Thin Films on Si (100)**

Tougaard, S. M., 2009.

**Handbook of Surface and Interface Analysis: Methods for Problem-Solving**

Tougaard, S. M., 2009, 2 ed. FL USA: Taylor & Francis. 651 p.

**Inelastic Scattering Cross Section of Si Determined from Angular Dependent Reflection Electron Energy Loss Spectra**

Tougaard, S. M., 2009, In: Journal of Surface Analysis. 15, 3, p. 321-324 4 p.

**Non-Destructive Depth Profiling by XPS Peak Shape Analysis**

Tougaard, S. M., 2009, In: Journal of Surface Analysis. 15, 3, p. 220-224 5 p.

**First nucleation steps of nickel nanoparticle growth on Al<sub>2</sub>O<sub>3</sub> (0001) studied by XPS inelastic peak shape analysis**

Tougaard, S. M., 1. Dec 2008, In: Applied Surface Science. 255, 5, p. 3000-3003 4 p.

**Growth mechanism of iron nanoparticles on (0001) sapphire wafers**

Tougaard, S. M., 1. Nov 2008, In: Microelectronics Journal. 39, 11, p. 1374-1375 2 p.

**Noise reduction procedures applied to XPS imaging of depth distribution of atoms on the nanoscale**

Tougaard, S., 15. Sep 2008, In: Surface Science. 602, 18, p. 3064-3070 7 p.

**Erratum: Validity of Yubero-Tougaard theory to quantitatively determine the dielectric properties of surface nanofilms [Phys. Rev. B 77, 155403 (2008)]**

Hajati, S., Romanyuk, O., Zemek, J. & Tougaard, S. M., 5. Jun 2008, In: Physical Review B. 77, 249904(E), 3 p.

**Determination of the surface excitation parameter for oxides: TiO<sub>2</sub>, SiO<sub>2</sub>, ZrO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub>**

Tougaard, S., 1. Jun 2008, In: Surface Science. 602, 11, p. 1974-1978 5 p.

**Test of validity of the V-type approach for electron trajectories in reflection electron energy loss spectroscopy**

Tougaard, S., 1. Jun 2008, In: Physical Review B. 77, 24, p. Article Number: 245405 12 p.

**Validity of Yubero-Tougaard theory to quantitatively determine the dielectric properties of surface nanofilms**

Hajati, S., Romanyuk, O., Zemek, J. & Tougaard, S., 1. Jun 2008, In: Physical Review B. 77, 24, p. 155403 15 p.

**Calculation of the angular distribution of the surface excitation parameter for Ti, Fe, Cu, Pd, Ag, and Au**

Tougaard, S., 2008, In: Surface and Interface Analysis. 40, p. 731-733 4 p.

**Nondestructive quantitative XPS imaging of depth distribution of atoms on the nanoscale**

Tougaard, S., 2008, In: Surface and Interface Analysis. 40, p. 688-691 5 p.

**Theoretical determination of the surface excitation parameter for Ti, Fe, Cu, Pd, Ag, and Au**

Tougaard, S., 2008, In: Surface Science. 601, p. 5611-5615 6 p.

**Characterization of Au nano-cluster formation on and diffusion in polystyrene using XPS peak shape analysis**

Tougaard, S., 2007, In: Surface Science. 610, p. 3261-3267

**Electronic properties of ultrathin  $(\text{HfO}_2)_x(\text{SiO}_2)_{1-x}$  dielectrics on Si(100)**

Tougaard, S., 2007, In: Oyo Buturi. 102, 5, p. 053709-053709-6 7 p.

**Penetration of fluorine into the silicon lattice during exposure to F atoms,  $\text{F}_2$ , and  $\text{XeF}_2$ : Implications for spontaneous etching reactions**

Tougaard, S., 2007, In: Journal of Vacuum Science & Technology. A. Vacuum, Surfaces, and Films. A 25, p. 96-103

**Theoretical Determination of the surface excitation parameter for Ti, Fe, Cu, Pd, Au, and Au**

Tougaard, S., 2007, In: Surface Science. 601, 23, p. 5611-5615

**Intrinsic and extrinsic excitations in deep core photoelectron spectra of solid Ge**

Kövér, L., Novák, M., Egri, S., Cserny, I., Berényi, Z., Tóth, J., Varga, D., Drube, W., Yubero, F., Tougaard, S. & Werner, W. S. M., 2006, In: Surface and Interface Analysis. 38, p. 569-573

**Oscillating Surface Effect in Reflection-electron energy loss spectra**

Pauli, N., Tougaard, S. & Yubero, F., 2006, In: Physical Review B. 73, 3, p. 035402

**Quantification and IMFP determination of multilayer Langmuir-Blodgett films by AFM and XPS measurements**

Sato, M., Tsukamoto, N., Shiratori, T., Furusawa, T., Suzuki, N. & Tougaard, S., 2006, In: Surface and Interface Analysis. 38, p. 604-609

**Quantitative analysis of reflection electron energy loss spectra for ultra-thin  $\text{HfO}_2$ ,  $\text{Al}_2\text{O}_3$  and Hf-Al-O dielectric films on Si(100)**

Jin, H., Oh, S. K., Kang, H. J. & Tougaard, S., 2006, In: Oyo Buturi. 100, p. 083713

**Tests of algorithms for angle-resolved XPS**

Tougaard, S., 2006, *Annual Report March 2006, Versailles Project on Advanced Materials and Standards Technical Working Area 2: Surface Chemical Analysis*. Powell, C. J. & Seah, M. P. (eds.). p. 13-16

**Theoretical Determination of the Surface Excitation Parameter from X-ray Photoelectron Spectroscopy**

Pauli, N., Tougaard, S. & Yubero, F., 2006, In: Surface and Interface Analysis. 38, p. 672-675

**What nano-physical properties can be determined by analysis of elastic peak accompanied by its inelastic background tail in XPS and AES spectra?**

Hajati, S. & Tougaard, S., 2006, In: Journal of Surface Analysis. 13, p. 148- 155

**XPS imaging of depth profiles and amount of substance based on Tougaard's algorithm**

Hajati, S., Coultas, S., Blomfield, C. & Tougaard, S., 2006, In: Surface Science. p. 3015-3021

**Algorithm for Automatic XPS Data Processing and XPS-Imaging**

Tougaard, S., 2005, In: Journal of Vacuum Science & Technology. A. Vacuum, Surfaces, and Films. A 23, p. 741-745

**Electron backscattering from surfaces: Azimuth-resolved distributions**

Glazov, L. & Tougaard, S., 2005, In: Physical Review B. 72, 085406.

**Quantification of plasmon excitations in core-level photoemission**

Yubero, F. & Tougaard, S., 2005, In: Physical Review B. 71, p. 045414

**Test of Dielectric Response Model for Energy and Angular Dependence of Plasmon Excitations in Core Level Photoemission**

Yubero, F., Kover, L., Drube, W., Eickhoff, T. & Tougaard, S., 2005, In: Surface Science. 592, p. 1-7



**Theoretical Study of the Surface Excitation Parameter from Reflection-Electron-Energy-Loss-Spectra**

Pauli, N., Tougaard, S. & Yobero, F., 2005, In: Surface and Interface Analysis. 37, p. 1151-1157

**Contribution of intrinsic and extrinsic excitations to KLL Auger spectra induced from Ge films.**

Berényi, Z., Kövér, L., Tougaard, S., Yubero, F., Tóth, J. & Cserny, I., 2004, In: Journal of Electron Spectroscopy and Related Phenomena. 135, p. 177-182

**Pulsed laser deposition of aluminum-doped ZnO films at 355 nm.**

Holmelund, E., Schou, J., Thestrup, B., Tougaard, S., Johnson, E. & Nielsen, M. M., 2004, In: Applied Physics. A79, p. 1137-1139

**QUEELS Software Package for Calculation of Surface Effects in Electron Spectra.**

Tougaard, S. & Yubero, F., 2004, In: Surface and Interface Analysis. 36, p. 824-827

**Surface Analysis: (b) X-ray Photoelectron Spectroscopy.**

Tougaard, S., 2004, *Encyclopedia of Analytical Science*. Worsfold, P., Townshend, A. & Pool, C. (eds.). 2nd Edition ed. Oxford: Academic Press, p. 445-456

**Surface Roughness and Island Formation effects in ARXPS quantification.**

Martin-Concepción, A. I., Yubero, F., Espinos, J. P., Garcia, J. & Tougaard, S., 2004, In: Surface and Interface Analysis. 36, p. 788-792

**The Use of QUASES<sup>TM</sup>/XPS Measurements to Determine the Oxide Composition and Thickness on an Iron Substrate**

Grosvenor, A. P., Kobe, B. A., McIntyre, N. S., Tougaard, S. & Lennard, W. N., 2004, In: Surface and Interface Analysis. 36, p. 632-639

**Determination of amount of substance on the nanometer range consistency between XPS, RBS and XRF quantification**

Martin-Concepción, A. I., Yubero, F., Espinos, J. P., Garcia, J. & Tougaard, S., 2003, In: Surface and Interface Analysis. 35, p. 984-90

**Electron Backscattering from Surfaces; Invariant Embedding Approach**

Glazov, L. G. & Tougaard, S., 2003, In: Physical Review B. 68, p. 155409

**Experimental determination of inelastic scattering cross-sections of Si, Ge and III-V semiconductors 2003**

Orosz, G. T., Gergely, G., Gurban, S., Menyhard, M., Toth, J., Varga, D. & Tougaard, S., 2003, In: Zhenkong. 71, p. 147-152

**Quantification of Nano-structures by Electron Spectroscopy**

Tougaard, S., 2003, *Surface Analysis by Auger and X-Ray Photoelectron Spectroscopy*. Briggs, D. & Grant, J. T. (eds.). IM Publications, p. kap. 12: 295-345

**Quantitative XPS: Simple algorithm to determine the amount of atoms in the outermost few nano-meters**

Tougaard, S., 2003, In: Journal of Vacuum Science & Technology. A: International Journal Devoted to Vacuum, Surfaces, and Films. A21, p. 1081-86

**XPS Study of First Stages of ZnO Growth and Nano-structure Dependence of the Polarization Effects at ZnO/SiO<sub>2</sub> and ZnO/Al<sub>2</sub>O<sub>3</sub> Interfaces**

Martin-Concepción, A. I., Yubero, F., Espinós, J. P., González-Elipé, A. R. & Tougaard, S., 2003, In: Journal of Vacuum Science & Technology. A: International Journal Devoted to Vacuum, Surfaces, and Films. A21, p. 1393-98

**Surface morphology of SiO<sub>2</sub> on a Si(111) 7×7 surface formed after alternating exposure to caesium and oxygen and subsequent annealing**

Semak, B. S., Jensen, T., Takker, L. B., Morgen, P. & Tougaard, S., 1. Feb 2002, In: Surface Science. 498, 1-2, p. 11-20  
10 p.

**Comparison of source functions obtained by using QUASES and the Partial Intensity Analyses for inelastic background correction: KLL Auger spectra of 3d transition elements Cu and Ni**

Köver, L., Tougaard, S., Werner, W. S. M. & Cserny, I., 2002, In: Surface and Interface Analysis. 33, 8, p. 681-686

**Comparison of the Tougaard, ARXPS, RBS and Ellipsometry methods to determine the thickness of thin SiO<sub>2</sub> layers**

Semak, B. S., Marel, C. V. D. & Tougaard, S., 2002, In: Surface and Interface Analysis. 33, p. 238-44

**Deposition and characterization of ITO films produced by laser ablation at 355 nm**

Holmelund, E., Thestrup, B., Schou, J., Larsen, N. B., Nielsen, M. M., Johnson, E. & Tougaard, S., 2002, In: Applied Physics A: Materials Science & Processing. p. A74; 147-52

**Determination of Inelastic Mean Free Path of High Energy Electrons from Shape Analysis of K- Auger and K- conversion Spectra Emitted from Thin Films**

Köver, L., Tougaard, S., Toth, J., Varga, D., Dragoun, O., Koval'k, A. & Rysavy, M., 2002, In: Journal of Surface Analysis. 9, p. 281-4

**Experimental estimation of surface excitation parameter for surface analysis**

Gergely, G., Menyhard, M., Gurban, S., Sulyok, A., Toth, J., Varga, D. & Tougaard, S., 2002, In: Surface and Interface Analysis. p. 33; 410-3

**Pure and Sn-doped ZnO films produced by pulsed laser deposition**

Holmelund, E., Schou, J., Tougaard, S. & Larsen, N. B., 2002, In: Applied Surface Science. p. 197-198; 467-71

**Recent progress in silicon oxidation: Towards ultra thin oxides**

Morgen, P., K.-Dam, F., Gundlach, C., Jensen, T., Tækker, L.-B., Tougaard, S. & Pedersen, K., 2002, In: Recent Res Devel Appl Phys. 5, p. 287-311

**Surface Morphology of SiO<sub>2</sub> grown on a Si(111)7x7 surface by alternating exposure to Caesium and Oxygen and Subsequent Annealing**

Semak, B. S., Jensen, T., Tækker, L. B., Morgen, P. & Tougaard, S., 2002, In: Surf. Sci.. p. 498; 11-20.

**Determination of overlayer thickness by QUASES analysis of photon excited KLL Auger spectra of Ni and Cu films**

Kövé, L., Tougaard, S., Tóth, J., Daróczy, L., Szabó, I., Langer, G. & Menyhárd, M., 2001, In: Surface and Interface Analysis. 31, p. 271B9

**Intercomparison of Methods for Separation of REELS Elastic Peak Intensities for Determination of IMFP**

Tougaard, S., Krawczyk, M., Jablonski, A., Pavluch, J., Tóth, J., Varga, D., Gergely, G., Menyhárd, M. & Sulyok, A., 2001, In: Surface and Interface Analysis. 31, p. 1-10

**Practical Correction Procedures for Elastic Electron Scattering Effects in ARXPS**

Lassen, T. S., Tougaard, S. & Jablonski, A., 2001, In: Surf. Sci.. 481, p. 150-62

**Probing the ex situ morphology of Ge islands on Si(001): AFM and XPS inelastic peak shape analysis**

Simonsen, A. C., Tougaard, S., Lundsgaard Hansen, J. & Nylandsted Larsen, A., 2001, In: Surface and Interface Analysis. 31, 4, p. 328-337 10 p.

**Quantification of Well-characterized Langmuir-Blodgett Film by Analysis of the PeakShape of XPS taken at Different Emission Angles.**

Suzuki, N., Kato, T. & Tougaard, S., 2001, In: Surface and Interface Analysis. 31, p. 862-8

**Surface Excitation Effects in Electron Spectroscopy**

Gergely, G., Menyhárd, M., Gurban, S., Sulyok, A., Tóth, J., Varga, D. & Tougaard, S., 2001, In: Solid State Ionics. 141-142, p. 47-51

**Surface Morphology of PS-PDMS Diblock Copolymer Films**

Andersen, T. H., Tougaard, S., Larsen, N. B., Amdal, K. & Johannsen, I., 2001, In: Journal of Electron Spectroscopy and Related Phenomena. 121, p. 93-110

**Analysis of angle-resolved electron energy loss in XPS spectra of Ag, Au, Co, Cu, Fe and Si**

Simonsen, A. C., Youbero, F. & Tougaard, S., 1999, In: Surface Science. 436, 1, p. 149-159

**Escape Probability of Electrons from Solids. Influence of Elastic Electron Scattering**

Jablonski, A. & Tougaard, S., 1999, In: Surf. Sci.. 432, p. 211-27

**Nanostructure of Ge deposited on Si(001): a study by XPS peak shape analysis and AFM**

Simonsen, A. C., Schleberger, M., Tougaard, S., Lundsgaard Hansen, J. & Nylandsted Larsen, A., 1999, In: Thin Solid Films. 338, 1-2, p. 165-71 7 p.

**Quantification of Au deposited on Ni: XPS peak shape analysis compared to RBS**

Simonsen, A. C., Pøhler, J. P., Jeynes, C. & Tougaard, S., 1999, In: Surface and Interface Analysis. 27, 1, p. 52-56 5 p.

**Ge growth on Si(001) studied by x-ray photoelectron spectroscopy peakshape analysis and atomic force microscopy**

Schleberger, M., Simonsen, A. C., Tougaard, S., Lundsgaard Hansen, J. & Nylandsted Larsen, A., 1. Nov 1997, In: Journal of Vacuum Science & Technology. A. Vacuum, Surfaces, and Films. 15, 6, p. 3032-3035 4 p.

**Quantitative model of electron energy loss in XPS**

Simonsen, A. C., Yubero, F. & Tougaard, S., 15. Jul 1997, In: Physical Review B. 56, 3, p. 1612-1619 8 p.

**Quantitative XPS: non-destructive analysis of surface nano-structures**

Tougaard, S. M., Jul 1996, In: Applied Surface Science. 100-101, p. 1-10

**Deconvolution of inelastic background signal from XPS spectra of homogeneous solids**

Tougaard, S. M. & Jørgensen, B., 1987, In: Surface Science. 182, 3, p. L253-L256

**Elastic and inelastic scattering of electrons emitted from solids: effects on energy spectra and depth profiling in xps/aes**

Tofterup, A. L., Tougaard, S. & Sigmund, P., Jul 1986, In: Surface and Interface Analysis. 9, 2, p. 130

**Quantitative non-destructive in-depth composition information from XPS**

Tougaard, S. M., 1986, In: Surface and Interface Analysis. 8, 6, p. 257-260

**Influence of elastic and inelastic scattering on energy spectra of electrons emitted from solids**

Tougaard, S. & Sigmund, P., 1982, In: Physical Review B. 27, 7, 4452.

**Mechanisms for oxygen adsorption on the Si(110) surface studied by Auger electron spectroscopy**

Tougaard, S., Morgen, P. & Onsgaard, J., 2. Nov 1981, In: Surface Science. 111, 3, p. 545-554 10 p.

**Electron Emission from Solids During Ion Bombardment: Theoretical Aspects**

Sigmund, P. & Tougaard, S. M., 1981, *Inelastic Particle-Surface Collisions: Proceedings of the Third International Workshop on Inelastic Ion-Surface Collisions Feldkirchen-Westerham, Fed. Rep. of Germany September 17-19, 1980*. Taglauer, E. & Heiland, W. (eds.). Berlin: Springer, p. 2-37 (Springer Series in Chemical Physics, Vol. 17).

**ADSORPTION OF N<sub>2</sub> ON W(100) UNDER LONG EXPOSURE.**

Winters, H. F., Morgen, P., Tougaard, S. & Onsgaard, J., 1. Jan 1980, p. 303-306. 4 p.

### **Scandium and lutetium surfaces studied by reflection electron energy-loss spectroscopy**

Onsgaard, J., Tougaard, S., Morgen, P. & Ryborg, F., 1. Jan 1980, In: Journal of Electron Spectroscopy and Related Phenomena. 18, 1, p. 29-41 13 p.

### **SCANDIUM, YTTRIUM AND LUTETIUM SURFACES STUDIED BY ELECTRON SPECTROSCOPY.**

Onsgaard, J., Tougaard, S., Morgen, P. & Ryborg, F., 1. Jan 1980, p. 1361-1364. 4 p.

### **Observation of changes in the electronic density of states at a Si (111) surface during adsorption of oxygen by Auger electron spectroscopy**

Morgen, P., Onsgaard, J. H. & Tougaard, S., 1. Dec 1979, In: Applied Physics Letters. 34, 8, p. 488-490 3 p.

### **Segregation of impurities at the surface of a scandium single crystal**

Onsgaard, J., Tougaard, S. & Morgen, P., 1. Jan 1979, In: Applications of Surface Science. 3, 1, p. 113-117 5 p.

### **Desorption from powdered ZnO during electron bombardment and interaction with atomic hydrogen**

Morgen, P., Onsgaard, J. H. & Tougaard, S., 1. Dec 1977, In: Journal of Applied Physics. 48, 8, p. 3443-3447 5 p.

### **Conductivity of powdered ZnO with chemisorbed oxygen during photodesorption**

Morgen, P., Onsgaard, J. H. & Tougaard, S., 1. Dec 1976, In: Journal of Applied Physics. 47, 11, p. 5094-5096 3 p.

## **Activities**

### **"Non-destructive characterization of nano-structures by analysis of the peak shape in photoelectron spectra"**

Sven Mosbæk Tougaard (Lecturer)

20. Jan 2013 → 23. Jan 2013

### **"Quantitative XPS: effects of core-hole and surface excitations"**

Sven Mosbæk Tougaard (Lecturer)

26. Aug 2010

### **"Simple universal curve for the energy dependent electron attenuation length for all materials" (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

2012 → ...

### **> Industrial Application Division**

Sven Mosbæk Tougaard (Visiting researcher)

20. Jan 2013 → 23. Jan 2013

### ***Invited talk at UKSAF meeting in Newcastle: "Quantitative XPS of surface nano-structures by analysis of the peak shape"***

Sven Mosbæk Tougaard (Lecturer)

9. Jan 2007

### ***Invited Talk held at Univ of Newcastle: "Characterization of morphology and electronic properties of surface nano-structures by photo- and reflection electron spectroscopy"***

Sven Mosbæk Tougaard (Lecturer)

10. Jan 2007

### **Invited talk at "Practical Surface Analysis 07" in Kanazawa Japan: "Algorithm for Automatic XPS Data Analysis: Quantification of Surface Nano-structures and Application to 3D-XPS Imaging"**

Sven Mosbæk Tougaard (Lecturer)

28. Nov 2007

### **Invited talk at ECASIA: "Nano-Structure Information from XPS; Automatic Data Analysis and 3D-Imaging"**

Sven Mosbæk Tougaard (Lecturer)

21. Oct 2009

**Invited talk: "Characterization of nano-structured polymers by XPS-peak shape analysis"**

Sven Mosbæk Tougaard (Lecturer)

17. Jan 2010

**REELS as a quantitative method to characterize the electronic properties of surface nano-structures**

Sven Mosbæk Tougaard (Lecturer)

20. Jun 2007

**Surface excitation parameter: Theoretical determination and application in Monte Carlo simulations**

Sven Mosbæk Tougaard (Lecturer)

22. Oct 2009

**Talk at "Samsung Advanced Institute of Technology" , Seoul Korea: "Algorithm for Automatic XPS Data Analysis: Quantification of Surface Nano-structures and Application to 3D-XPS Imaging"**

Sven Mosbæk Tougaard (Lecturer)

10. Jan 2009

**Talk at "American Vacuum Society 55th International Symposium": "3-Dimensional XPS Imaging of Surface Nano-structures; A New Technique"**

Sven Mosbæk Tougaard (Lecturer)

22. Oct 2008

**Talk at Chungbuk National University, Korea: "Algorithm for Automatic XPS Data Analysis: Quantification of Surface Nano-structures and Application to 3D-XPS Imaging"**

Sven Mosbæk Tougaard (Lecturer)

19. Mar 2008

**32nd European Conference On Surface Science (ECOSS-32)**

Sven Mosbæk Tougaard (Organizer)

28. Aug 2016 → 2. Sep 2016

**6th International Conference on Theoretical and Applied Physics (6th ICTAP)**

Sven Mosbæk Tougaard (Organizer)

19. Sep 2016 → 21. Sep 2016

**6th International Symposium on Flexible Organic Electronics**

Sven Mosbæk Tougaard (Participant)

7. Jul 2013 → 11. Jul 2013

**7th International Symposium on Practical Surface Analysis (PSA-16)**

Sven Mosbæk Tougaard (Organizer)

16. Oct 2016 → 21. Oct 2016

**8th International Symposium on Practical Surface Analysis (PSA-19),**

Sven Mosbæk Tougaard (Program committee member)

Nov 2019

**A Near Real-time Data Analysis Package to Enhance the Information Extracted from XPS Spectra**

Sven Mosbæk Tougaard (Other)

25. Aug 2010

**AIP The Journal of Chemical Physics (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

15. Feb 2011

**American Vacuum Society 59th annual meeting**

Sven Mosbæk Tougaard (Participant)  
2012

**Analytical and Bioanalytical Chemistry (Journal)**

Sven Mosbæk Tougaard (Editor)  
1. Jan 2009

**Analytical Sciences (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
2010

**Applied Surface Science (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
8. Mar 2018

**Applied Surface Science (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
1. Oct 2018

**Applied Surface Science (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
11. Oct 2021

**Applied Surface Science, Elsevier (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
3. May 2016

**Applied Surface Science, Elsevier (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
29. May 2016

**Arranged a Tutorial at Lokey Laboratories, University of Oregon: Using QUASES for Quantitative XPS and Auger Analysis of Surface Nanostructures**

Sven Mosbæk Tougaard (Other)  
28. Apr 2009

**Automated XPS analysis and XPS-Imaging of nano-structures**

Sven Mosbæk Tougaard (Lecturer)  
13. Oct 2010 → ...

**Bedømmelsesudvalg for "Fonds de la Recherche Scientifique - FNRS", Belgium. (External organisation)**

Sven Mosbæk Tougaard (Member)  
1. Feb 2009 → 12. Feb 2009

**Bedømmelsesudvalg for "Fonds de la Recherche Scientifique - FNRS", Belgium. (External organisation)**

Sven Mosbæk Tougaard (Member)  
31. Mar 2010 → 15. Apr 2010

**Ca 15 papers i 5 forskellige internationale tidsskrifter (Journal)**

Sven Mosbæk Tougaard (Editor)  
1. Jan 2007

**Censor i Faststoffysik på Aarhus Universitet**

Sven Mosbæk Tougaard (Censor)

14. Jan 2015 → 16. Jan 2015

**Censor i Faststoffysik på Aarhus Universitet**

Sven Mosbæk Tougaard (Censor)

23. Mar 2015

**Characterization of morphology of nano-structures by XPS**

Sven Mosbæk Tougaard (Lecturer)

2. Apr 2014

**Characterization of morphology of nano-structures by XPS**

Sven Mosbæk Tougaard (Lecturer)

8. Apr 2014

**Characterization of nano-structured materials with XPS-peak shape analysis**

Sven Mosbæk Tougaard (Lecturer)

17. Aug 2010 → ...

**Characterization of nano-structured materials with XPS-peak shape analysis**

Sven Mosbæk Tougaard (Lecturer)

20. Aug 2010

**Charles University**

Sven Mosbæk Tougaard (Visiting researcher)

11. Nov 2009 → 13. Nov 2009

**Combining high-resolution core-level and inelastic background analysis in HAXPES to investigate deeply buried interfaces**

Sven Mosbæk Tougaard (Lecturer)

2. Oct 2015

**Course: QUASES Analysis**

Sven Mosbæk Tougaard (Guest lecturer)

25. Sep 2018

**Czech Academy of Sciences**

Sven Mosbæk Tougaard (Visiting researcher)

10. Nov 2009

**Danmarks Tekniske Universitet (External organisation)**

Sven Mosbæk Tougaard (Member)

19. Dec 2014

**ECASIA 19**

Sven Mosbæk Tougaard (Program committee member)

Sep 2019

**ECASIA-13**

Sven Mosbæk Tougaard (Organizer)

19. Oct 2013

**ECASIA-15 European Conference on Applications of Surface and Interface Analysis**

Sven Mosbæk Tougaard (Organizer)

27. Sep 2015 → 2. Oct 2015

**Ecole Thematique: "Workshop on XPS analysis"**

Sven Mosbæk Tougaard (Organizer)

27. Sep 2016 → 28. Sep 2016

**Effective Attenuation Lengths for Photoelectrons in Thin Films of Silicon Oxynitride and Hafnium Oxynitride on Silicon (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

2012 → ...

**European Conference on Surface Science (ECOSS)**

Sven Mosbæk Tougaard (Organizer)

30. Aug 2014 → 5. Sep 2014

**European Synchrotron Radiation Facility**

Sven Mosbæk Tougaard (Visiting researcher)

10. Jul 2015 → 14. Jul 2015

**External examiner on PhD thesis at Tampere University of Technology, Finland: "Oxidation Induced Nanostructures on Copper Alloy and Austenitic Steel Surfaces Studied by Electron Spectroscopic Methods"**

Sven Mosbæk Tougaard (Censor)

4. Oct 2007

**External examiner on PhD thesis at Helsinki University of Technology: "Development of XPS Data Analysis and its Application to Gas Sensor and Catalyst Surface Studies."**

Sven Mosbæk Tougaard (Censor)

14. Aug 2007

**Extrinsic and intrinsic effects in XPS: Validity of the two-step model and corrections for surface and core-hole effects**

Sven Mosbæk Tougaard (Lecturer)

3. Aug 2011

**Extrinsic and Intrinsic Effects in XPS: Validity of the two-step model and corrections for surface and core-hole effects**

Sven Mosbæk Tougaard (Lecturer)

13. Oct 2010 → ...

**Factor Analysis and Advanced Background Analysis methods to solve the problem of ... (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

2013 → ...

**Founder and director of the software company: "QUASES-Tougaard ApS" (External organisation)**

Sven Mosbæk Tougaard (Member)

20. Feb 1994 → ...

**Gave a course for Industry and PhD students from USA, UK and central Europe**

Sven Mosbæk Tougaard (Guest lecturer)

22. Mar 2017

**Gave a course for Industry and PhD students held at University of Surrey, UK: "SURFACE ANALYSIS: AN INTRODUCTION TO XPS, SCANNING AUGER MICROSCOPY AND SECONDARY ION MASS SPECTROMETRY": PhD kursus**

Sven Mosbæk Tougaard (Guest lecturer)

23. Apr 2007 → 27. Apr 2007



**Gave a course for Industry and PhD students held at University of Surrey, UK:"Surface Analysis: XPS, Auger and SIMS":  
PhD kursus**

Sven Mosbæk Tougaard (Lecturer)  
18. Mar 2013 → 22. Mar 2013

**Gave a course for Industry and PhD students held at University of Surrey, UK:"Surface Analysis: XPS, Auger and SIMS":  
Quantitative Analysis of Surfaces by Electron Spectroscopy' and software tutorial on applications of Quases-Tougaard  
software packages**

Sven Mosbæk Tougaard (Lecturer)  
24. Mar 2015 → 25. Mar 2015

**Gave a one day course on quantitative XPS of nano-structured materials**

Sven Mosbæk Tougaard (Guest lecturer)  
6. Jul 2017

**Gave a workshop: XPS analysis using the QUASES-Tougaard software packages at the ECASIA conference**

Sven Mosbæk Tougaard (Guest lecturer)  
27. Sep 2015

**Growth of silver on ZnO and SnO<sub>2</sub> thin films intended for low emissivity applications (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
2012

**Hasanuddin University**

Sven Mosbæk Tougaard (Visiting researcher)  
30. Mar 2014 → 5. Apr 2014

**ICPPC-2010 International Conference on Polymer Processing and Characterization**

Sven Mosbæk Tougaard (Participant)  
15. Jan 2010 → 19. Jan 2010

**Imperial College Press, London: Electron Elastic Scattering and Inelastic Scattering in Surface Electron Spectroscopy  
(Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
4. Oct 2011

**Institute Of Physics IOP Nanotechnology (Journal)**

Sven Mosbæk Tougaard (Editor)  
1. Jan 2008

**Instituto de Ciencia de Materiales de Sevilla**

Sven Mosbæk Tougaard (Visiting researcher)  
14. Mar 2010 → 19. Mar 2010

**Instituto de Ciencia de Materiales de Sevilla**

Sven Mosbæk Tougaard (Visiting researcher)  
26. Jan 2014 → 31. Jan 2014

**International Congress on Materials and Renewable Energy (MRE 2013)**

Sven Mosbæk Tougaard (Participant)  
1. Jul 2013 → 3. Jul 2013

**Intrinsic and Extrinsic Excitations in XPS (and AES): Validity of the two-step model and corrections for surface and core  
hole effects**

Sven Mosbæk Tougaard (Lecturer)  
19. Aug 2010

**Invited Albert Nerken Award lecture: "Characterization of thin-film nano-structures by XPS"**  
Sven Mosbæk Tougaard (Lecturer)  
29. Oct 2012

**Invited talk at NanoTech Insight 2007 Luxor, Egypt: "Characterization of morphology and electronic properties of surface nano-structures by photo- and reflection electron spectroscopy"**  
Sven Mosbæk Tougaard (Lecturer)  
16. Mar 2007

**Invited talk at workshop "Optimizing Information Content of X-ray Photoelectron Spectroscopy Analys" at University of Oregon, USA: "Quantitative and non-destructive in-depth analysis of surface nano-structures"**  
Sven Mosbæk Tougaard (Lecturer)  
27. Apr 2009

**Invited talk at "55th IUVSTA workshop: Electron Transport Parameters; Applications in Surface Analysis": "3-Dimensional XPS Imaging of Surface Nano-structures; A New Technique"**  
Sven Mosbæk Tougaard (Lecturer)  
15. Sep 2008

**INVITED TALK Novel Applications of Inelastic Background Analysis: HAXPES and 3D Imaging**  
Sven Mosbæk Tougaard (Guest lecturer)  
24. Sep 2018

**Invited talk: "Analytical Approach for Quantitative Surface Chemical Analysis using AES and XPS"**  
Sven Mosbæk Tougaard (Lecturer)  
2013

**Invited talk: "Characterization of Nano-structures from Analysis of the XPS Background: Automation and 3D-imaging"**  
Sven Mosbæk Tougaard (Lecturer)  
29. Oct 2011 → 5. Nov 2011

**Invited talk: "Nano-structure Information from XPS; Automated data analysis and 3D-imaging"**  
Sven Mosbæk Tougaard (Lecturer)  
4. Oct 2010

**Invited talk: "Nano-Structure Information from XPS; Automated Data Analysis and 3D-Imaging"**  
Sven Mosbæk Tougaard (Speaker)  
24. Aug 2010

**Invited talk: "Quantitative XPS: Getting the Most Out of Your Instrument"**  
Sven Mosbæk Tougaard (Guest lecturer)  
5. Jul 2017

**Invited talk: New developments (since last PSA 16) in Practical Applications of Inelastic Background Analysis to Characterize nano-structures**  
Sven Mosbæk Tougaard (Guest lecturer)  
5. Nov 2019

**Invited talk: Novel Applications of XPS-Inelastic Background Analysis: 3D imaging and HAXPES**  
Sven Mosbæk Tougaard (Guest lecturer)  
17. Oct 2017

**Invited Tutorial at workshop "Optimizing Information Content of X-ray Photoelectron Spectroscopy Analys" at University of Oregon, USA: "QUASES software applied to XPS-Nanostructure Characterization"**

Sven Mosbæk Tougaard (Lecturer)

28. Apr 2009

**Invited talk: "Non-Destructive Characterization of Nano-Structures by XPS"**

Sven Mosbæk Tougaard (Lecturer)

2013

**IVC18- International Vacuum Congress**

Sven Mosbæk Tougaard (Speaker)

7. Aug 2010

**J of Physics: Condensed Matter (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**J Phys D: Applied Physics (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2009

**J. Electron Spectroscopy and Related Phenomena, Elsevier (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

6. May 2015

**J. of Physics: Condensed Matter: The validity of semi-classical approach in calculation of surface excitation parameter (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

23. Jun 2011

**J. Phys. D: Appl. Phys (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2009

**J. Phys. D: Applied Phys (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2009

**Journal Electron Spectroscopy (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2009

**Journal Electron Spectroscopy (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Journal Electron Spectroscopy (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2009

**Journal Electron Spectroscopy and Related Phenomena (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2010

**Journal Electron Spectroscopy, Elsevier (Journal)**  
Sven Mosbæk Tougaard (Peer reviewer)  
8. Apr 2015

**Journal Electron Spectroscopy, Elsevier (Journal)**  
Sven Mosbæk Tougaard (Peer reviewer)  
13. Jan 2013

**Journal of Applied Physics (Journal)**  
Sven Mosbæk Tougaard (Editor)  
1. Jan 2008

**JOURNAL OF APPLIED PHYSICS (Journal)**  
Sven Mosbæk Tougaard (Editor)  
1. Jan 2008

**JOURNAL OF APPLIED PHYSICS (Journal)**  
Sven Mosbæk Tougaard (Editor)  
1. Jan 2008

**JOURNAL OF APPLIED PHYSICS (Journal)**  
Sven Mosbæk Tougaard (Editor)  
1. Jan 2008

**Journal of Electron Spectroscopy (Journal)**  
Sven Mosbæk Tougaard (Editor)  
1. Jan 2008

**Journal of Electron Spectroscopy and Related Phenomena (Journal)**  
Sven Mosbæk Tougaard (Editor)  
20. Jun 1988 → 1. Jan 2012

**Journal of Electron Spectroscopy and Related Phenomena (Journal)**  
Sven Mosbæk Tougaard (Editor)  
1. Jan 2008

**Journal of Electron Spectroscopy, Elsevier (Journal)**  
Sven Mosbæk Tougaard (Peer reviewer)  
9. Jun 2016

**Journal of Materials Chemistry (Journal)**  
Sven Mosbæk Tougaard (Editor)  
1. Jan 2010

**Journal of Physics (Journal)**  
Sven Mosbæk Tougaard (Editor)  
1. Jan 2008

**Journal of Physics D: Applied Physics (Journal)**  
Sven Mosbæk Tougaard (Editor)  
1. Jan 2009

**Journal of Physics D: Applied Physics (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2009

**Journal of Surface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 1994 → ...

**Journal of Surface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Journal of Surface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Journal of Surface Analysis (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

2010

**Journal of Electron Spectroscopy (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2009

**Journal Surface Analysis (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

2010

**Journal Vacuum Science and Technology (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Julius-Maximilian University of Würzburg**

Sven Mosbæk Tougaard (Visiting researcher)

22. Jun 2009 → 24. Jun 2009

**Julius-Maximilian University of Würzburg**

Sven Mosbæk Tougaard (Visiting researcher)

6. Jun 2011 → 18. Jun 2011

**Julius-Maximilian University of Würzburg**

Sven Mosbæk Tougaard (Visiting researcher)

25. Jul 2011 → 6. Aug 2011

**Keynote Speaker: Novel applications of inelastic background analysis: 3D imaging and HAXPES**

Sven Mosbæk Tougaard (Lecturer)

17. Oct 2016

**Leader of research program supported by BCR, EU (External organisation)**

Sven Mosbæk Tougaard (Member)

1. Jan 1989 → 31. Dec 1994

**Leader of the international research program: "Tests of Algorithms for Data Processing in XPS under Versailles Project on Advanced Materials and Standards (VAMAS)" (External organisation)**

Sven Mosbæk Tougaard (Member)

1. Jan 1997 → 1. Feb 2007

**Materials Science Center**

Sven Mosbæk Tougaard (Visiting researcher)

20. Oct 2007 → 27. Oct 2007

**Member of *Center of Excellence: "Surface Phenomena and Reactions"* (External organisation)**

Sven Mosbæk Tougaard (Member)

1. Feb 2003 → 1. Feb 2007

**Member of International Program Advisory Board for "International Symposium on Surface Science -Focusing on Nano-, Green, and Biotechnologies- (ISSS-6)"**

Sven Mosbæk Tougaard (Organizer)

28. Jan 2010 → 15. Dec 2011

**Member of Program Committee for "5th International Symposium on Practical Surface Analysis (PSA-10)"**

Sven Mosbæk Tougaard (Organizer)

1. Nov 2009 → 10. Oct 2010

**Member of Program Committee for 5th International Symposium on Practical Surface Analysis**

Sven Mosbæk Tougaard (Organizer)

21. Oct 2010 → ...

**Member of Program Committee for European Conference for Surface and Interface Analysis**

Sven Mosbæk Tougaard (Organizer)

4. Sep 2011

**Member of steering committee for "European conference for applications of surface and interface analysis-ECASIA 09"**

Sven Mosbæk Tougaard (Organizer)

16. Oct 2009 → 23. Oct 2009

**Member of the International Steering Committee for the conference: "European Conference on Applications of Surface and Interface Analysis (ECASIA-07)"**

Sven Mosbæk Tougaard (Organizer)

9. Sep 2007 → 14. Sep 2007

**Member of the Program Committee for "55th IUVESTA Workshop on Electron Transport Parameters Applied in Surface Analysis"**

Sven Mosbæk Tougaard (Organizer)

14. Sep 2008 → 17. Sep 2008

**Member of the Program Committee for "International Symposium on Practical Surface Analysis 2007", Japan**

Sven Mosbæk Tougaard (Organizer)

25. Nov 2007 → 28. Nov 2007

**Member of the Program Committee for "2nd International Workshop on Hard X-ray Photoelectron Spectroscopy" at SPring-8, Japan**

Sven Mosbæk Tougaard (Organizer)

19. Sep 2006 → 20. Sep 2006

**Member, since 2002 of the "International Steering Committee for European Conference on Applications of Surface and Interface Analysis (ECASIA)" (External organisation)**

Sven Mosbæk Tougaard (Member)

20. Apr 2002 → ...

**Model to correct XPS and AES for core hole-, transport- and surface effects. Validity and practical applications**

Sven Mosbæk Tougaard (Lecturer)

1. Sep 2014

**Nano Technology (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Nanostructures Characterized by Electron Spectroscopy.**

Sven Mosbæk Tougaard (Lecturer)

15. Jun 2011

**Nanotechnology (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Nanotechnology (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**National Institute for Materials Science Tsukuba**

Sven Mosbæk Tougaard (Visiting researcher)

10. Oct 2010 → 13. Oct 2010

**National University of Singapore (External organisation)**

Sven Mosbæk Tougaard (Member)

1. Jan 2009 → 1. Mar 2009

**Near real time data analysis and other approaches to enhancing information from XPS**

Sven Mosbæk Tougaard (Lecturer)

21. Oct 2009

**New technique for non-destructive 3D-imaging of nano-structures**

Sven Mosbæk Tougaard (Lecturer)

27. Oct 2010

**Non-destructive imaging of nanostructures by analysis of the photoelectron peak shape**

Sven Mosbæk Tougaard (Lecturer)

30. Aug 2016

**Pacific Northwest National Laboratory**

Sven Mosbæk Tougaard (Visiting researcher)

28. Apr 2009 → 2. May 2009

**Paris Diderot University**

Sven Mosbæk Tougaard (Visiting researcher)

18. May 2008 → 25. May 2008

**Participated in "The Latest in XPS Technology" meeting at Risoe, Denmark**

Sven Mosbæk Tougaard (Participant)

7. Jun 2007 → 8. Jun 2007

**Participated in the international research project: "Synchrotron Microanalysis: accurate and traceable elemental analysis on the microscopic level" (External organisation)**

Sven Mosbæk Tougaard (Member)

1. Jan 2000 → 1. Jul 2005

**Physical Review B (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2009

**Plenary lecture: Quantitative XPS and HAXPES**

Sven Mosbæk Tougaard (Guest lecturer)

5. Oct 2021

**Poster at "European Conference on Surface and Interface Analysis": "Characterization of Au nano-cluster formation on and diffusion in Polystyrene using XPS peak shape analysis"**

Sven Mosbæk Tougaard (Lecturer)

10. Sep 2007

**Poster at "European Conference on Surface and Interface Analysis": "Test of validity of the V-type trajectory assumption in REELS experiments"**

Sven Mosbæk Tougaard (Lecturer)

13. Sep 2007

**Poster at "European Conference on Surface and Interface Analysis": "Theoretical determination of the surface excitation parameter for Ti, Fe, Cu, Pd, Ag, and Au"**

Sven Mosbæk Tougaard (Lecturer)

12. Sep 2007

**Quantitative Analysis of Surfaces by Electron Spectroscopy**

Sven Mosbæk Tougaard (Lecturer)

24. Mar 2015

**Quantitative Analysis of Surfaces by Electron Spectroscopy. XPS and AES**

Sven Mosbæk Tougaard (Keynote speaker)

26. Sep 2016 → 30. Sep 2016

**Quantitative XPS of nano-structures with the Quases software-Practical applications and tutorial examples**

Sven Mosbæk Tougaard (Lecturer)

19. Oct 2015 → 21. Oct 2015

**Quantitative XPS: Effects of core-hole and surface excitations**

Sven Mosbæk Tougaard (Lecturer)

7. Oct 2010 → ...

**QUASES workshop**

Sven Mosbæk Tougaard (Guest lecturer)

27. Sep 2015

**QUASES-workshop**

Sven Mosbæk Tougaard (Organizer)

27. Sep 2015

**QUASES-XPS analysis of surface nano-structures**

Sven Mosbæk Tougaard (Guest lecturer)

16. Jun 2019 → 21. Jun 2019



**REM8-8th International Meeting on recent developments in the study of radiation effects in matter**

Sven Mosbæk Tougaard (Participant)

20. Sep 2015 → 23. Sep 2015

**Scientific leader of the international research program: "Determination of Standardized Parameters Describing the Electron Transport for Quantitative Surface Analysis by Electron Spectroscopies" (External organisation)**

Sven Mosbæk Tougaard (Member)

1. Jan 1998 → 1. Jan 2002

**Short Course on Quases-XPS analysis of nano-structured surfaces**

Sven Mosbæk Tougaard (Guest lecturer)

2. Jul 2019

**Software Package to Calculate the Effects of Core hole and Surface Excitations on XPS and AES**

Sven Mosbæk Tougaard (Lecturer)

6. Sep 2011

**Spring-8, Japan: "Non-destructive characterization of nano-structures by analysis of the peak shape in photoelectron spectra "**

Sven Mosbæk Tougaard (Lecturer)

21. Jan 2013

**Surface Analysis 2009; 31st AVS-Symposium on Applied Surface Analysis**

Sven Mosbæk Tougaard (Participant)

22. Apr 2009 → 24. Apr 2009

**Surface Analysis Course at Univ. of Surrey, UK**

Sven Mosbæk Tougaard (Speaker)

2013

**Surface and Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 1987 → ...

**Surface and Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Surface and Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Surface and Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Surface and Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Surface and Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Surface and Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2009

**Surface and Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

1. Nov 2010

**Surface and Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

13. Sep 2018

**Surface and Interface Analysis, Wiley (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

20. May 2016

**Surface and Interface Analysis, Wiley (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

25. Jun 2016

**Surface and Interface Analysis, Wiley (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

15. Jul 2016

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2009

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2010

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2010

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2010

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2010

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

7. Sep 2010

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

2010

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

12. Jan 2011

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

Sep 2013

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

Oct 2013

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

12. Nov 2013

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

18. Nov 2013

**Surface Interface Analysis (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

1. Nov 2018

**Surface Interface Analysis- Wiley (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

Feb 2014

**Surface Interface Analysis- Wiley (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

Nov 2018 → ...

**Surface Interface Analysis, Wiley (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

21. Feb 2014

**Surface Interface Analysis, Wiley (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

May 2015

**Surface Interface Analysis, Wiley (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

14. Aug 2015

**Surface Interface Analysis, Wiley (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

19. Sep 2015 → ...

**Surface Interface Analysis, Wiley (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

30. Oct 2015

**Surface Interface Analysis, Wiley (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

Oct 2018

**Surface Interface Analysis: "An accurate ..." (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

2011

**Surface Interface Analysis: "Assessment of the thickness of SiO<sub>2</sub> layers through XPS measurements employing experimental and theoretical values of  $\beta$ " (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

27. Feb 2012

**Surface Interface Analysis: "Improved ARXPS.." (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

2011

**Surface Interface Analysis: "Systematic Calculation of the Surface Excitation Parameters for 25 Materials" (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)

2012 → ...

**Surface Science (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Surface Science (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Surface Science (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Surface Science (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Surface Science (Journal)**

Sven Mosbæk Tougaard (Editor)

1. Jan 2008

**Surface Science (Journal)**

Sven Mosbæk Tougaard (Editor)  
1. Jan 2008

**Surface Science (Journal)**

Sven Mosbæk Tougaard (Editor)  
1. Jan 2009

**Surface Science (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
Aug 2013

**Surface Science (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
2014 → ...

**Surface Science (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
29. Dec 2014

**Surface Science (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
Apr 2018

**Surface Science Spectra (Journal)**

Sven Mosbæk Tougaard (Editor)  
20. May 1989 → ...

**Surface Science Spectra (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
18. Mar 2016

**Surface Science Spectra (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
16. Dec 2018

**Surface Science Spectra (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
22. Dec 2018

**Surface Science Spectra (Journal)**

Sven Mosbæk Tougaard (Peer reviewer)  
25. Oct 2021

**Talk at "12th Joint Vacuum Conference (JVC-12)" in Hungary: "3-Dimensional XPS Imaging of Surface Nano-structures; A New Technique"**

Sven Mosbæk Tougaard (Lecturer)  
23. Sep 2008

**Talk at "European Conference on Surface and Interface Analysis": Applicability of REELS to characterize the electronic properties of surface nano-structures"**

Sven Mosbæk Tougaard (Lecturer)  
10. Sep 2007

**Talk at "Mads Clausen Institut", Sønderborg Denmark: "Characterization of Morphology and Electronic Properties of Surface Nano-structures with XPS and REELS"**

Sven Mosbæk Tougaard (Lecturer)

26. Feb 2009

**Talk at "Surface Analysis 2009; 31st AVS-Symposium on Applied Surface Analysis", California USA: "3-Dimensional XPS Imaging of Surface Nano-structures; A New Technique"**

Sven Mosbæk Tougaard (Lecturer)

22. Apr 2009

**Talk at Charles University in Prague: "Characterization of nano-structured materials with XPS-peak shape analysis"**

Sven Mosbæk Tougaard (Lecturer)

11. Nov 2009

**Talk at Helsinki University of Technology: "Characterization of chemical composition and electronic properties of nano-structures"**

Sven Mosbæk Tougaard (Lecturer)

13. Aug 2007

**Talk at Materials Science Center, Sevilla: "XPS Imaging of Nano-structures"**

Sven Mosbæk Tougaard (Lecturer)

16. Mar 2010

**Talk at Tampere University of Technology 2007: "Algorithm for Automatic XPS data analysis and applications to 3D XPS imaging"**

Sven Mosbæk Tougaard (Lecturer)

10. Aug 2007

**Talk at Universitaet Wuerzburg: "Nano-scale in-depth composition and electronic properties of nano-structured thin films determined with XPS and REELS"**

Sven Mosbæk Tougaard (Lecturer)

23. Jun 2009

**Talk at "55th IUVSTA Workshop: Electron Transport Parameters; Applications in Surface Analysis": "Validity of Yubero-Tougaard theory to quantitatively determine the dielectric properties of surface nanofilms"**

Sven Mosbæk Tougaard (Lecturer)

16. Sep 2008

**Talk at "Pacific Northwest National Laboratory", Washington-State, USA: "3-Dimensional Nano-Structure Information from X-Ray Photo Electron Spectroscopy"**

Sven Mosbæk Tougaard (Lecturer)

30. Apr 2009

**Talk at 2nd IEEE International Nanoelectronics Conference in Shanghai, China: "3-Dimensional XPS Imaging of Surface Nano-structures; A New Technique"**

Sven Mosbæk Tougaard (Lecturer)

26. Mar 2008

**Talk at: "European Conference on Surface and Interface Analysis": "Tomography on the nanoscale by XPS; A new approach to visual 3D-imaging"**

Sven Mosbæk Tougaard (Lecturer)

11. Sep 2007

**The Centre of Physical Experiments**

Sven Mosbæk Tougaard (Visiting researcher)  
18. Aug 2010 → 22. Aug 2010

**The Dielectric Function and its application in nano-structure characterization**

Sven Mosbæk Tougaard (Lecturer)  
3. Apr 2014

**Ukendt (External organisation)**

Sven Mosbæk Tougaard (Participant)  
19. Oct 2015 → 22. Oct 2015

**University of Indonesia**

Sven Mosbæk Tougaard (Visiting researcher)  
6. Apr 2014 → 9. Apr 2014

**University of Southern Denmark**

Sven Mosbæk Tougaard (Visiting lecturer)  
16. Apr 2013 → 19. Apr 2013

**University of Southern Denmark**

Sven Mosbæk Tougaard (Visiting lecturer)  
18. Jul 2016 → 25. Jul 2016

**University of Southern Denmark (External organisation)**

Sven Mosbæk Tougaard (Chairman)  
Jan 2014

**Visited "Applied Materials" - leader in Nanomanufacturing Technology solutions; Santa Clara, California, USA**

Sven Mosbæk Tougaard (Supervisor)  
20. Apr 2009

**Visited "KLA-Tencor" - leading semiconductor equipment manufacturer; Santa Clara, California, USA**

Sven Mosbæk Tougaard (Advisor)  
21. Apr 2009

**Workshop on QUASES-Tougaard XPS**

Sven Mosbæk Tougaard (Guest lecturer)  
19. Sep 2019

**Workshop on XPS-QUASES analysis**

Sven Mosbæk Tougaard (Guest lecturer)  
28. Sep 2017

**Writing Scientific Papers**

Sven Mosbæk Tougaard (Lecturer)  
1. Apr 2014