

# Curriculum Vitae – Björn Margeirsson, Ph.D.

Research Manager Sæplast / Temptra,  
Associate Professor University of Iceland

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[www.hi.is/staff/bjornm](http://www.hi.is/staff/bjornm)

[https://www.researchgate.net/profile/Bjoern\\_Margeirsson](https://www.researchgate.net/profile/Bjoern_Margeirsson)

## PERSONAL

Year of birth: 1979

Marital status: Married to Rakef Ingólfssdóttir, Medical Doctor at Landspítali University Hospital of Iceland

Children: Arna (2010), Helgi (2013), Ragnar (2015), Margeir (2018)

## EDUCATION

Year	Degree	Educational Institution	Location
2012	Ph.D. in Mechanical Engineering	University of Iceland	Reykjavík, Iceland
2007	M.Sc. in Mechanical Engineering	Chalmers University of Technology	Gothenburg, Sweden
2003	B.Sc. in Mech. and Industrial Engineering	University of Iceland	Reykjavík, Iceland
1998	High school (Secondary School)	Menntaskólinn við Sund	Reykjavík, Iceland

## EXPERTISE

Heat transfer, Food packaging, Fish industry technology, Refrigerated transport, Fresh fish, Expanded polystyrene, Freezing

## WORK EXPERIENCE

Year	Position	Company/Institution	Location
2019–...	Associate Professor	University of Iceland	Reykjavík, Iceland
2016–2019	Assistant Professor	University of Iceland	Reykjavík, Iceland
2016–...	Member of council of specialists	Technology Development Fund – The Icelandic Centre for Research	Reykjavík, Iceland
2013–...	Research Manager	Sæplast/Temptra	Dalvík/Hafnarfjörður, Iceland
2013	Sessional Teacher	University of Akureyri	Akureyri, Iceland
2011–2013	Running Club Coach	World Class Laugar	Reykjavík, Iceland
2012–2013	Research Group Leader	Matís	Reykjavík, Iceland
2009–2012	Project Manager	Matís	Reykjavík, Iceland
2007–2016	Sessional Teacher	University of Iceland	Reykjavík, Iceland
2007–2009	Research Scientist	Matís	Reykjavík, Iceland
2003–2005	B.Sc. Engineer	Almenna Consulting Engineers	Reykjavík, Iceland
2000–2003	Summer Employee	Almenna Consulting Engineers	Reykjavík, Iceland
1996–1997	Sales Clerk	11–11 grocery store	Reykjavík, Iceland
1995–1999	Summer Employee	The national telephone company	Reykjavík, Iceland

## ACADEMIC EXPERIENCE

### Academic supervision and examination

2019

Supervisor of Styrmir Svavarsson in his M.Sc. mechanical engineering studies at the University of Iceland. Working title of thesis: Effects of different precooling methods for whitefish fillets.

2018-2019

Supervisor of Doreen Wanjiku Njathi in her environment and natural resources M.Sc. studies at the University of Iceland. Title of thesis: Life Cycle Assessment of fresh fish transport in Saeplast Insulated Plastic Containers.

Supervisor of Jón Þór Backman in his M.Sc. mechanical engineering studies at the University of Iceland. Working title of thesis: Structural analysis of rotomolded plastic containers.

2018

Supervisor of Fabien Levray, Master's student in industrial process engineering at the University of Western Brittany, France for two months internship. Subject of internship: Insulation of different food containers and storage studies on chilled and superchilled fish in different food containers.

Supervisor of Helga Lilja Jónsdóttir in her M.Sc. mechanical engineering studies at the University of Iceland. Title of thesis: Numerical analysis of temperature variations in chilled salmon packed in EPS boxes under dynamic temperature conditions.

Supervisor of Sigurður Jakob Helgason in his M.Sc. mechanical engineering studies at the University of Iceland. Title of thesis: Redesign of EPS fish boxes using experimental and computational structural analysis.

Supervisor of Katrín Róbertsdóttir in her M.Sc. industrial engineering studies at the University of Iceland. Title of thesis: Redesign of pelagic fish meal processing line.

2017

Supervisor of Erwan Queguiner, Master's student in Food Innovation at the University of Western Brittany, France for three months internship. Subject of internship: Quality assessment of fish from different food containers and direct contact between fresh fish fillets and expanded polystyrene boxes.

2017–2018

Supervisor of Rúnar Ingi Tryggvason in his M.Sc. food science studies at the University of Iceland. Title of thesis: The effect of insulated food container design on fish quality and transport costs.

2016–2017

Supervisor of Marvin Ingi Einarsson in his M.Sc. industrial engineering studies at the University of Iceland. Title of thesis: Fishmeal and fish oil processing on board freezer trawler.

2015–2017

Supervisor of Sigurður Örn Ragnarsson in his M.Sc. mechanical engineering studies at the University of Iceland. Title of thesis: Dynamic Thermal Models for the Atlantic Cod and Evaluation of Thermal Resistance of Fish Containers.

2015

Served as examiner for Jón Viðar Guðmundsson. Title of thesis: Umbætur á framleiðsluferli með tilliti til orku- og hráefnisnotkunar (e. Process improvements with regard to energy- and raw material usage). M.Sc. thesis in industrial engineering at the University of Iceland.

2014–2016

Supervisor of Ásgeir Jónsson in his M.Sc. natural resources and food science studies at the University of Iceland. Title of thesis: Optimized sea transport of fresh fish fillets and loins – quality and cost.

2014–2015

Supervisor of Bjarni Eiríksson in his M.Sc. natural resource sciences studies at the University of Akureyri. Title of thesis: Evaluation of entrance into new markets: case of Norwegian aquaculture.

2014–...

Member of the doctoral committee of Sæmundur Elfásson in his Ph.D. industrial engineering studies at the University of Iceland. Preliminary title of thesis: Innovation in the value chain of ground fish in Iceland.

2014

Served as examiner for Matthildur María Guðmundsdóttir. Title of thesis: Improvements in conveyor drying of rockweed and kelp. M.Sc. thesis in mechanical engineering at the University of Iceland.

Served as examiner for Helga Franklínisdóttir. Title of thesis: Application of waterjet cutting in processing of cod and salmon fillets. M.Sc. thesis in food science at the University of Iceland.

2013–2014

Supervisor of Steinar Geirdal Snorrason in his M.Sc. mechanical engineering studies at the University of Iceland. Title of thesis: Numerical analysis of heat transfer in fish containers.

Supervisor of Steinunn Áslaug Jónsdóttir in her M.Sc. food science studies at the University of Iceland. Title of thesis: High Quality Redfish Fillets for Export-Improving handling, processing and storage methods to increase shelf life.

2012–2013

Supervisor of Sindri Freyr Ólafsson in his M.Sc. industrial engineering studies at the University of Iceland. Title of thesis: Downstream process design for microalgae.

2011–2013

Supervisor of Magnús Valgeir Gíslason in his M.Sc. mechanical engineering studies at the University of Iceland. Title of thesis: Electrically powered drying of fish meal.

2011–2012

Supervisor of Valur Oddgeir Bjarnason in his M.Sc. mechanical engineering studies at the Technical University of Denmark. Title of thesis: CFD Modelling of Combined Blast and Contact Cooling for Whole Fish.

2010–2012

Supervisor of Sæmundur Elfásson in his M.Sc. mechanical engineering studies at the University of Iceland. Title of thesis: Temperature control during containerised sea transport of fresh fish.

2009–2011

Supervisor of Kristín Líf Valtýsdóttir in her M.Sc. mechanical engineering studies at the University of Iceland. Title of thesis: The effects of different precooling techniques and improved packaging design on fresh fish temperature control.

2007

Supervisor of Hong Yan Gao in her studies at the United Nations University Fisheries Training Programme in Iceland. 2007. Methods of pre-cooling for fresh cod (*Gadus Morhua*) and influences on quality during chilled-storage at  $-1.5\text{ }^{\circ}\text{C}$ .

### Review activities

Reviewer for

- Journal of Food Engineering since 2012;
- Journal of Aquatic Food Product Technology since 2013;
- International Journal of Refrigeration since 2016.

### Courses/Teaching

2019–...

Associate Professor at University of Iceland. Courses: Fish Processing Technology I, Fish Processing Technology II, Food Engineering I, Food Engineering II.

2016–2019

Assistant Professor at University of Iceland. Courses: Fish Processing Technology I, Fish Processing Technology II, Food Engineering I, Food Engineering II, Preservation Operations, Design and Optimisation.

2007–2016

Sessional teacher at University of Iceland. Courses: Fish Processing Technology I, Fish Processing Technology II, Food Engineering I, Food Engineering II, Preservation Operations, Design and Optimisation, Mechanical Vibrations.

2013

Sessional teacher at University of Akureyri. Course: Processing Technology.

2009

Seminar on freezing, super-chilling and temperature control in cold stores at Skinney Þinganes. 16–17 Nov. 2009, Höfn, Iceland.

2007–2012

Lecturer at The United Nations University Fisheries Training Programme in Iceland. Topics: Ice and its usage, Cold store and logistics.

### Attended courses

26–27 Feb 2014 SolidWorks Surface Modeling at ProNor ([www.pronor.no](http://www.pronor.no)), Oslo, Norway.

31 March 2010 Mathematical modelling. One day course on mathematical modelling in food research. 1st IIR Conference on the Cold Chain and Sustainability. Cambridge, UK.

### Grants

The R&D project Lighter salmon boxes received the following grants:

2017–2020                      University of Iceland Research Fund

The R&D project New transport containers for fresh food received the following grants:

2017–2018                      Technology Development Fund in Iceland

2017–2018                      AVS R&D Fund of Ministry of Fisheries and Agriculture in Iceland

The Ph.D. project Thermal modelling of chilling and transport of fish received the following grants:

2008–2011                      Technology Development Fund of The Icelandic Centre for Research

2009–2011                      University of Iceland Research Fund

2008–2011                      AVS R&D Fund of Ministry of Fisheries in Iceland

1998                                I received Landsbankinn's study grant for high school studies

### Research and Development Projects

2018–2020

Lighter salmon boxes. Aim: Develop lighter expanded polystyrene boxes used for fresh salmon through integration of computerized heat transfer and structural modelling and thermal load, structural and shelf life experiments. Position: Project manager and supervisor of MSc students.

2017–2019

New transport containers for fresh food. Aim: Develop new twin-transport containers with improved volume utilization during storage and transport and food quality as compared to existing packaging solutions for whole cod and salmon. Position: Project manager and supervisor of MSc students.

2014–...

Innovation in the value chain of ground fish. Aim: Improve on-board handling of whole ground fish. Position: Research scientist and supervisor of a PhD student, coordinated by Matis.

2014–2016

Optimisation of fresh fish transport. Aim: compare usage of expanded polystyrene boxes to double-walled, insulated plastic containers during sea transport of fresh fish products. Position: Project manager. Final report is available at <http://www.matis.is/media/matis/utgafa/11-16-Samanburdur-a-pokkun-ferkra-fiskafurda.pdf>.

2013–2014

Heat transfer modelling of fish containers. Aim: develop and validate three-dimensional time dependent heat transfer models of fish containers under temperature-abusive conditions. Position: Project manager. Final report is available at [http://www.av.s.is/media/skyrslur/Heat-transfer-modelling-of-fish-containers\\_FINAL.pdf](http://www.av.s.is/media/skyrslur/Heat-transfer-modelling-of-fish-containers_FINAL.pdf).

2012–2013

Quality optimisation of frozen mackerel products. Aim: investigate seasonal quality and stability variations of frozen mackerel products and the effects of different precooling, freezing methods and storage conditions. Furthermore, to develop numerical heat transfer models in order to predict spatio-temporal product temperature changes during processing, storage and transport. Position: Project manager.

2012–2013

Increased value of mackerel through systematic chilling. Aim: to maximise the quality of mackerel products by optimised chilling during different catching- and processing methods. Different chilling processes will be investigated and chilling protocols and equipment for different ship types will be developed. Position: Project manager.

2011–2012

Super-Chilled Round Fish – Pre Rigor. Aim: investigate superchilled processing of whole whitefish (pre rigor) by means of temperature monitoring, numerical heat transfer modelling, microbial- and sensory evaluation. Position: Project manager. Final report is available at [http://www.matis.is/media/matis/utgafa/12-13\\_Ofurkaeldur\\_heill\\_fiskur.pdf](http://www.matis.is/media/matis/utgafa/12-13_Ofurkaeldur_heill_fiskur.pdf).

2010-2012

Improved reefer container for fresh fish. Aim: to use simple redesign and experimental testing to improve temperature control in reefer containers and work procedures of fresh fish products during transport. Position: Project manager. Final report is available at <http://www.matis.is/media/matis/utgafa/01-13-Improved-reefer-container-for-fresh-fish.pdf>.

2008–2011

Thermal modelling of processing and transport of fish. The main aim was to improve temperature control during processing and transport of fresh fish products through experiments and numerical modelling. Position: Research scientist / Ph.D. student. Final report is available at <http://www.matis.is/media/matis/utgafa/30-11-Lokaskyrsla-Hermun-Kaeliferla.pdf>.

2008–2011

Increased value of pelagic species. Aim: increase the chilling of pelagic fish on-board fishing vessels. Position: Project manager. Final report: <http://www.matis.is/media/matis/utgafa/08-11-Lokaskyrsla-Aukid-verdmaeti-uppsjavarfisks.pdf>.

2007–2010

Chill on. EU-project (project no. FP6-016333-2). Aim: improved quality and safety of fresh seafood. ([www.chill-on.com](http://www.chill-on.com)). Position: Research scientist.

#### AWARDS – Björn Margeirsson Ph.D.

<i>Year</i>	<i>Award</i>	<i>Awarding Body</i>
2006	Male athlete of the year	Icelandic Athletic Federation
2004-2006	Runner of the year	Framfarir, Icelandic Running Association
2003	Improvements of the year	Framfarir, Icelandic Running Association
1998	Dux scholae (mean gr. 9.50 out of 10)	Menntaskólinn við Sund secondary school

**Theses**

Margeirsson, B. 2012. *Modelling of temperature changes during transport of fresh fish products*. Doctoral thesis. University of Iceland, Reykjavík, Iceland. Main supervisor: Dr. Halldór Pálsson.

Margeirsson, B. 2007. *Computational Modelling of Flow over a Spillway in Vatnsfellsstífla Dam in Iceland*. M.Sc. thesis at Chalmers University of Technology. Gothenburg, Sweden. Supervisor: Dr. Håkan Nilsson.

Margeirsson, B. 2007. *Computational Modelling of Temperature Distribution in a Cold Storage*. Report on a 7.5 ECTS units project at Chalmers University of Technology. Gothenburg, Sweden. Supervisor: Dr. Håkan Nilsson.

**Refereed publications**

2019

Eliasson, S., Arason, S., Margeirsson, B., Bergsson, A.B., Pálsson, O.P. 2019. The effects of superchilling on shelf-life and quality indicators of whole Atlantic cod and fillets. *LWT Food Science and Technology*, 100:426–434.

2012

Margeirsson, B., Pálsson, H., Gospavic, R., Popov, V., Jónsson, M.P., Arason, S. 2012. Numerical modelling of temperature fluctuations of chilled and superchilled cod fillets packaged in expanded polystyrene boxes stored on pallets under dynamic temperature conditions. *Journal of Food Engineering* 113(1):87–99.

Margeirsson, B., Pálsson, H., Popov, V., Gospavic, R., Arason, S., Sveinsdóttir, K., Jónsson, M.P. 2012. Numerical modelling of temperature fluctuations in superchilled fish loins packaged in expanded polystyrene and stored at dynamic temperature conditions. *International Journal of Refrigeration* 35(5):1318–1326.

Gospavic, R., Margeirsson, B., Popov, V. 2012. Mathematical model for estimation of the three-dimensional unsteady temperature variation in chilled packaging. *International Journal of Refrigeration* 35(5):1304–1317.

Margeirsson, B., Lauzon, H.L., Pálsson, H., Popov, V., Gospavic, R., Jónsson, M.P., Sigurgísladóttir, S., Arason, S. 2012. Temperature fluctuations and quality deterioration of chilled cod (*Gadus morhua*) fillets packaged in different boxes stored on pallets under dynamic temperature conditions. *International Journal of Refrigeration* 35(1):187–201.

2011

Margeirsson, B., Gospavic, R., Pálsson, H., Arason, S., Popov, V. 2011. Experimental and numerical modelling comparison of thermal performance of expanded polystyrene and corrugated plastic packaging for fresh fish. *International Journal of Refrigeration* 34 (2):573–585.

Mai, N.T.T, Margeirsson, B., Margeirsson, S., Bogason, S., Sigurgísladóttir, S., Arason, S. 2011. Temperature Mapping of Fresh Fish Supply Chains – Air and Sea Transport. *Journal of Food Process Engineering* 35(4):622–656.

2010

Arason, S., Ásgeirsson, E.I., Margeirsson, B., Margeirsson, S., Olsen, P., Stefánsson, H. 2010. Decision Support Systems for the Food Industry. In: L.C. Jain and C.P. Lim. *Handbook on Decision Making: Techniques and Applications*. Germany: Springer-Verlag, pp. 295–315.

Reynisson, E., Lauzon, H.L., Thorvaldsson, L., Margeirsson, B., Runarsson, A.R., Marteinnsson, V.Th., Martinsdóttir, E. 2010. Effects of different cooling techniques on bacterial succession and other spoilage indicators during storage of whole, gutted haddock (*Melanogrammus aeglefinus*). *European Food Research and Technology* 231(2):237–246.

**In conference proceedings**

2019

Eliásson, S.\*, Arason, S., Margeirsson, B., Bergsson, A.B., Pálsson, Ó.P. Effects of on-board bleeding methods and superchilling on quality of cod and saithe. In: The 25th IIR International Congress of Refrigeration, 24–30 August 2019. Montreal, Canada.

2017

Jónsson, Á., Margeirsson, B., Arason, S., Karlsdóttir, M.G., Þórðarson, G., Knúttsson, Ö. 2017. *Gæða- og kostnaðargreining á ferskum sjófluttum flökum og bitum (Quality and cost assessment of fresh sea transported fillets and portions)*. In: Spring Conference of the School of Business at the University of Iceland, 19 April 2017. Reykjavík, Iceland.

2013

Margeirsson, B., Pálsson, H., Arason, S., Lauzon, H.L., Jónsson, M.P., Gospavic, R., Popov, V. 2013. Quality deterioration and numerical modelling of temperature fluctuations of chilled cod fillets packaged in different boxes stored on pallets under dynamic temperature conditions. In: The 2<sup>nd</sup> IIR International Conference on Sustainability and the Cold Chain, 2–4 April 2013. Paris, France.

2011

Margeirsson, B., Pálsson, H., Popov, V., Gospavic, R., Arason, S., Sveinsdóttir, K., Jónsson, M.P. 2011. Numerical Modelling of Temperature Fluctuations in Superchilled Fish Loins Packaged in Expanded Polystyrene and Stored at Dynamic Temperature Conditions. In: The 23<sup>rd</sup> IIR International Congress of Refrigeration, 21–26 August 2011. Prague, Czech Republic.

Valtýsdóttir, K.L., Margeirsson, B., Arason, S., Pálsson, H., Gospavic, R., Popov, V. 2011. Numerical Heat Transfer Modelling for Improving Thermal Protection of Fish Packaging. In: CIGR Section VI International Symposium on Towards a Sustainable Food Chain Food Process, Bioprocessing and Food Quality Management, 18–20 April 2011. Nantes, France.

2010

Drader, D., Margeirsson, B., Ingason, H.P., Jónsson, M.P. 2010. An application of the DSM method on software development at CCP. In: The 24th IPMA World Congress 1–3 Nov 2010. Istanbul, Turkey.

Mai, N., Margeirsson, B., Stefánsson, G. 2010. Temperature controlled transportation alternatives for fresh fish – air or sea? In: The 22nd NOFOMA conference. 10–11 June 2010. Kolding, DK, p. 147–162.

Gao, H.Y., Margeirsson, B., Arason, S. 2010. Quality Evaluation on Pre-cooled Fresh Cod (*Gadus Morhua*) Fillets at Chilled-storage Condition. In: *The 5th Asian Conference on Refrigeration and Air Conditioning*. 7–9 June 2010. Tokyo, Japan.

2008

Margeirsson, B., Arason, S. 2008. Temperature monitoring and CFD modelling of a cold storage. In: *CCM 2008: The 3rd International Workshop on Cold Chain Management*. 2–3 June 2008. Bonn, GER, p. 215–226.

Margeirsson, B., Arason S. 2008. Comparison between different ice media for chilling fish. In: *CCM 2008: The 3rd International Workshop on Cold Chain Management*. 2–3 June 2008. Bonn, GER, p. 265–272.

### Other publications

Ingvarsson, Á., Margeirsson, B., Friðriksson, F., Guðbjartsson, L. 2019. Slurry Ice: The Icelandic Solution. [Fishermen's News](#). 1 March 2019.

Margeirsson, B., Pálsson, H., Arason, S., Lauzon, H.L., Jónsson, M.P., Gospavic, R., Popov, V. 2014. Étude expérimentale et modélisation numérique des effets de chocs thermiques sur des filets de cabillaud palettisés (Experimental study and digital modelling of the effect of thermal shocks on cod fillets in pallets). *Revue générale du Froid & du Conditionnement d'air*, 104(1143):22–31.

Björn Margeirsson. 2012. Kæling ferskfisks bætt með varmaflutningslíkönum. [Matur er mannsins megin](#), 24:14.

Björn Margeirsson. 2009. Frysting og þíðing grálúðu rannsókuð með varmaflutningslíkönum. *Ægir*, 102 (10–11):14–16.

Kolbrún Sveinsdóttir, Hélène L. Lauzon, Björn Margeirsson, Lárus Þorvaldsson, Kristín A. Þórarinsdóttir, Hannes Magnússon, María Guðjónsdóttir, Sigurjón Arason, Emilía Martinsdóttir. 2009. Mikilvægi kælingar: frá miðum á markað. *Ægir* 102 (9):14–15.

Björn Margeirsson. 2009. Hermun kæliferla – bætt hitastýring vinnslu- og flutningaferla. [Vélabrögð 30. árg.](#) (tímarit véla- og iðnaðarverkfræðinema).

### Reports

2019

Björn Margeirsson. 2019. Ný flutningaker fyrir fersk matvæli – Lokaskýrsla (New transport containers for fresh food – Final report, in Icelandic). Technical report. Sæplast, University of Iceland.

Páll Árnason, Björn Margeirsson. 2019. Mechanical testing of Sæplast twin containers. Technical report. Innovation Center Iceland, University of Iceland.

Björn Margeirsson, 2019. [Stacking strength of expanded polystyrene boxes with fish storage capacity between 3 and 25 kg.](#) Technical report. Tempra, University of Iceland.

2018

Björn Margeirsson, Erwan Queguiner. 2018. Thermal performance of Sæplast 185 PUR and 200 PE buggies during indoor storage. Technical report. Sæplast, University of Iceland.

Rúnar Ingi Tryggvason, Magnea Karlsdóttir, Björn Margeirsson, Aðalheiður Ólafsdóttir, Sigurjón Arason. 2018. The effects of food container depth on the quality and yield of superchilled and iced Atlantic salmon. [Matis report 12-18](#).

Magnea Karlsdóttir, Erwan Queguiner, Björn Margeirsson, Sigurjón Arason, Aðalheiður Ólafsdóttir. 2018. The effects of food container depth and coverage on the quality of superchilled rainbow trout. [Matis report 11-18](#).

Fabien Levray, Björn Margeirsson. 2018. [Evaluation of thermal insulation of different Tempra EPS boxes](#). Technical report. Tempra, University of Iceland.

Rúnar Ingi Tryggvason, Magnea Karlsdóttir, Björn Margeirsson, Sigurjón Arason, Aðalheiður Ólafsdóttir. 2018. The effects of insulated tub depth on the quality of iced Atlantic cod. [Matis report 04-18](#).

2017

Erwan Queguiner, Björn Margeirsson, Sigurjón Arason. 2017. Styrene migration from expanded polystyrene boxes into fresh cod and redfish at chilled and superchilled temperatures. [Matis report 07-17](#).

Björn Margeirsson, Gunnar Þórðarson, Anton H. Guðjónsson. 2017. [Transport of chilled and superchilled rainbow trout in insulated containers and expanded polystyrene boxes – Trial shipment from Westfjords, Iceland to Slupsk, Poland](#). Technical report. Sæplast, University of Iceland.

Magnea G. Karlsdóttir, Björn Margeirsson, Sigurjón Arason. 2017. The effects of different packaging solutions on the shelf life of fresh cod loins – drainage holes, cooling media and plastic bags. [Matis report 03-17](#).

Björn Margeirsson. 2017. [Ice requirement guidelines for fish packed in Sæplast 460 and 660 and Nordic 660 containers during indoor storage](#). Technical report. Sæplast, University of Iceland.

2016

Magnea G. Karlsdóttir, Ásgeir Jónsson, Gunnar Þórðarson, Björn Margeirsson, Sigurjón Arason, Aðalheiður Ólafsdóttir, Þorsteinn Ingi Víglundsson. 2016. Packing of fresh fish products in boxes and tubs intended for sea transport. [Matis report 11-16](#).

Ásgeir Jónsson, Björn Margeirsson, Sigurjón Arason, Ögmundur Knúttson, Magnea G. Karlsdóttir. 2016. Economic analysis of fresh fish transportation. [Matis report 10-16](#).

Magnea G. Karlsdóttir, Gunnar Þórðarson, Ásgeir Jónsson, Hrunn Ólafsdóttir, Sigurjón Arason, Björn Margeirsson, Aðalheiður Ólafsdóttir. 2016. Comparison of transport and packaging methods for fresh fish products – storage life study. [Matis report 09-16](#).

Björn Margeirsson, Sigurjón Arason, Þorsteinn I. Víglundsson, Magnea G. Karlsdóttir. 2016. Instructions for the cooling ability of slurry ice intended for chilling of fish products in fish containers. [Matis report 07-16](#).

Björn Margeirsson. 2016. [Thermal performance of 70 L single walled fish boxes and Sæplast insulated fish containers](#). Technical report. Sæplast.

Björn Margeirsson. 2016. [Thermal comparison of 70 PUR and 100 PUR Sæplast containers](#). Technical report. Sæplast.

2015

Paulina E. Romotowska, Björn Margeirsson, Gísli Kristjánsson, Sigurjón Arason, Magnea G. Karlsdóttir, Sæmundur Elíasson, Arnljótur B. Bergsson. 2015. Effect of salt content in slurry ice on quality of fresh and thawed Atlantic mackerel (*Scomber scombrus*). [Matis report 13-15](#).

2014

Steinar G. Snorrason, Björn Margeirsson, Halldór Pálsson, Sigurjón Arason. 2014. [Heat transfer modelling of fish containers – Final report](#). Promens (Sæplast), University of Iceland, Matis.

Magnús V. Gíslason, Gunnar Pálsson, Sindri F. Ólafsson, Arnljótur B. Bergsson, Björn Margeirsson, Sigurjón Arason, Magnea G. Karlsdóttir. 2014. Próteinverksmiðja Héðins (HPP) og lýsisverksmiðja Héðins (HOP). [Matis report 11-14](#).

2013

Hélène L. Lauzon, Aðalheiður Ólafsdóttir, Eyjólfur Reynisson, Björn Margeirsson. 2013. Comparison of packaging for bulk storage of fresh cod loins. [Matis report 21-13](#).

Hagalín Á. Guðmundsson, Björn Margeirsson, Sigurjón Arason. 2013. Modeling of Temperature Changes, Energy Usage and Quality Changes During Automatic Box Freezing of Mackerel. [Matis report 13-13](#).

Björn Margeirsson, Valur O. Bjarnason, Sigurjón Arason. Superchilled Round Fish – Final Report. [Matis report 12-13](#).

Magnús V. Gíslason, Gunnar Pálsson, Björn Margeirsson, Sigurjón Arason. 2013. Notkun rafmagns við þurrkun fiskmjöls / Electric drying of fish meal. [Matis report 03-13](#).

Sæmundur Elíasson, Björn Margeirsson, Sigurjón Arason. 2013. Improved reefer container for fresh fish / Endurbættur kæligámur fyrir ferskfisk – LOKASKÝRSLA. [Matis report 01-13](#).

2012

Björn Margeirsson, Birgir Örn Smáráson, Gunnar Þórðarson, Aðalheiður Ólafsdóttir, Eyjólfur Reynisson, Óðinn Gestsson, Emilía Martinsdóttir, Sigurjón Arason. 2012. Comparison of transport modes and packaging methods for fresh fish products – storage life study and life cycle assessment. [Matis report 35-12](#).

Aðalheiður Ólafsdóttir, Björn Margeirsson, Kolbrún Sveinsdóttir, Sigurjón Arason, Eyjólfur Reynisson, Emilía Martinsdóttir. 2012. Effect of superchilled processing of whole whitefish – pre-rigor / Áhrif ofurkælingar á skemmdarferla og geymsluþol heils fisks og flaka. [Matís report 22-12](#).

2011

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## **Presentations**

2019

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Margeirsson, B. Umhverfissvænni frauðplastkassar (e. More environmentally friendly EPS boxes). Presentation given at Strandbúnaður 2019, 21 March 2019. Reykjavík, Iceland. Slides available at [https://strandbunadur.is/wp-content/uploads/2019/03/1.-Bj%C3%B6rn-Margeirsson\\_.pdf](https://strandbunadur.is/wp-content/uploads/2019/03/1.-Bj%C3%B6rn-Margeirsson_.pdf).

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2018

Elíasson, S.\*, Arason, S., Margeirsson, B., Bergsson, A.B., Pálsson, Ó.P. Effects of on-board fresh-fish processing innovation on shelf-life and quality. Presentation given at the 48th Conference of the West European Fish Technologists' Association, 16 Oct 2018. Lisboa, Portugal.

Margeirsson, B. Thermal insulation of various food containers with volume capacity between 6 L and 1000 L. Presentation given at Innovations in Food Science and Human Nutrition, 15 Sept 2018. Rome, Italy.

Margeirsson, B., Helgason, S.J., Jónsdóttir, H.L., Brynjólfsson, S., Pálsson, H., Arason, S. Structural and heat transfer modelling of lighter expanded polystyrene boxes. Presentation given at the International Conference on Food and Beverages, 6 August 2018. Tokyo, Japan.

Margeirsson, B. Léttari frauðkassar fyrir eldisfisk (e. Lighter EPS boxes for farmed fish). Presentation given at Strandbúnaður 2018, 19 March 2018. Reykjavík, Iceland. Slides available at <https://strandbunadur.is/wp-content/uploads/2018/03/Bj%C3%B6rn.pdf>.

2017

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2014

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2013

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Elíasson, S., Margeirsson, B.\*, Arason, S., Pálsson, H. Temperature control during containerised sea transport of fresh fish. Presentation given at the 4<sup>th</sup> Trans-Atlantic Fisheries Technology Conference, 30 Oct–2 Nov 2012. Clearwater Beach, FL, United States.

Margeirsson, B. Aukin verðmæti sjávarfangs - bætt nýting aukaafurða og betri kælikeðja. Presentation given at an open meeting on Héðinn Protein Plant, 16 May 2012. Snæfellsbær, Iceland.

Margeirsson, B. 2012. *Modelling of temperature changes during transport of fresh fish products*. Doctoral defense, 2 May 2012. University of Iceland, Reykjavík, Iceland.

2011

Margeirsson, B., Arason, S. Innovative methods to improve temperature control in fresh fish supply chains. Presentation given at the 4<sup>th</sup> International Congress on Food and Nutrition together with the 3<sup>rd</sup> SAFE Consortium International Congress on Food Safety, 12–14 Oct 2011. Istanbul, Turkey.

Tómas Hafliðason, Guðrún Ólafsdóttir, Björn Margeirsson, Sigurður Bogason. Simple shelf life prediction models for wireless sensor networks in fish supply chains. Presentation given at the 41<sup>st</sup> WEFTA Meeting, 27–30 Sept 2011, Gothenburg, Sweden.

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2010

Sveinsdóttir, K., Lauzon, H.L., Martinsdóttir, E., Margeirsson, B. 2010. Effects of different cooling techniques during processing and temperature fluctuations during air and sea freight on storage life of cod loins. Presentation given at the 40<sup>th</sup> WEFTA Annual Meeting, 4–7 Oct 2010, Izmir, Turkey.

Valtýsdóttir K.L., Margeirsson, B., Sveinsdóttir, K., Arason, S. 2010. Influence of improved packaging design on temperature control and shelf life of pre-chilled cod fillets during dynamic temperature storage. Presentation given at the 40<sup>th</sup> WEFTA Annual Meeting, 4–7 Oct 2010, Izmir, Turkey.

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2009

Margeirsson, B. Hitastýring í flutningsferlum og einangrunargildi pakkninga. Presentation given at Matis and UoI workshop on chilling of fresh fish. Vestmannaeyjar, Iceland. 26 Nov 2009.

Margeirsson, B. Hitastýring í flutningsferlum sjávarafurða – tilraunir og líkanagerð. Presentation given at an open seminar of Verið ehf. Sauðárkrúkur, Iceland, 13 Nov 2009.

Arason, S., Margeirsson, B. Áhrif hitasveiflna á frosið sjávarfang. Presentation given at Annual general meeting of Icelandic Association of Refrigeration. Reykjavík, Iceland, 10 Nov 2009.

Margeirsson, B., Gospavic, R., Popov, V., Arason, S. Experimental and numerical investigation of thermal performance of wholesale fresh fish packaging. Presentation given at TAFT 2009: 3<sup>rd</sup> Joint Trans-Atlantic Fisheries Technology Conference. Copenhagen, Denmark. 18 Sept 2009.

Arason, S., Margeirsson, B. Hermun kælifera. Presentation given at Icelandic Association of Refrigeration workshop. Reykjavík, Iceland. 24 March 2009.

Margeirsson, B. Temperature management in fish cold chains. Guest presentation at Wessex Institute of Technology. Ashurst Lodge, Southampton, United Kingdom. 21 Jan 2009.

2008

Margeirsson, B. Temperature management in cold chains – basis for quality assurance. Presentation given at Sustainable Fisheries Symposium. Reykjavik, Iceland. 25 Oct 2008.

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Margeirsson, B., Arason, S. Temperature monitoring and CFD modelling of a cold storage. Proceedings from CCM 2008: The 3rd International Workshop on Cold Chain Management. Bonn, Germany. 3 June 2008.

Margeirsson, B. Að hefja doktorsnám í verkfræðideild HÍ. Presentation at Meistaradagur verkfræðinnar in University of Iceland. Reykjavík, Iceland. 29 May 2008.

Margeirsson, B. Samanburður kælimiðla og kortlagning á kælikeðjum. Presentation at Icelandic focus group meeting. EU project; Chill On – Novel Technologies for a Safe and Transparent Food Supply. Reykjavík, Iceland. 29 April 2008.

2007

Margeirsson, B. Logistics. Workshop: Tiltak um fiskivinnuna um feskan fisk. Föroya Ráfiskakeyparafelag. Thorshavn, Faroe Islands. 26 Oct. 2007.

Margeirsson, B. Evaluation of cooling techniques. First Annual Stakeholder Forum. EU project; Chill on - Novel Technologies for a Safe and Transparent Food Supply. Cologne, Germany. 18 Oct 2007.

Margeirsson, B. Chilled Transport and Storage - Supporting Technologies. First Annual Stakeholder Forum. EU project; Chill on - Novel Technologies for a Safe and Transparent Food Supply. Cologne, Germany. 17 Oct 2007.

## **Posters**

2018

Margeirsson, B., Óskarsson, D., Tryggvason, R.I., Arason, S., Karlsdóttir, M. Volume utilization and fresh fish quality during transport in different food containers. In: International Conference on Food and Beverages, 6–7 August 2018. Tokyo, Japan.

2016

Magnea G. Karlsdóttir, Ásgeir Jónsson, Gunnar Þórðarson, Björn Margeirsson, Sigurjón Arason, Aðalheiður Ólafsdóttir. Packaging of fresh whitefish products in boxes and tubs intended for sea transport. In: 46<sup>th</sup> WEFTA conference. 12-14 Oct 2016, Split, Croatia.

2012

Guðmundsson, H.Á., Veigarsson, B., Margeirsson, B., Árnason, I., Sigurðsson, S., Bergsson, A.B., Arason, S. Automatic Box Freezer – An Energy Efficient Process with Improved Product Quality of Pelagic Fish. In: 4<sup>th</sup> Trans-Atlantic Fisheries Technology Conference. 30 Oct–2 Nov, 2012, Clearwater Beach, FL, United States.

Bjarnason, V.O., Margeirsson, B., Walther, J.H., Arason, S., Bergsson, A.B. CFD modelling of combined blast and contact cooling for whole fish. In: 4<sup>th</sup> Trans-Atlantic Fisheries Technology Conference. 30 Oct–2 Nov, 2012, Clearwater Beach, FL, United States.

Gíslason, M.V., Margeirsson, B., Arason, S., Pálsson, G., Bergsson, A.B. HPP – Automatic, electric and environmentally friendly small fish meal factory. In: 4<sup>th</sup> Trans-Atlantic Fisheries Technology Conference. 30 Oct–2 Nov, 2012, Clearwater Beach, FL, United States.

2009

Margeirsson, B., Arason, S. Comparison between different ice media for chilling fish. In: FreshTec 2009: The 3rd Annual Chill-On Industrial Forum. 21–23 Sept 2008, Rotterdam, Netherlands.

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2008

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