Acknowledgements
Acknowledgements

Netherlands has been an amazing life experience and a great professional gain. Looking back, during this journey I had the honor of working with many people, who have provided encouragement and support in my PhD journey. I would like to thank to some of them who made this thesis possible.

My deepest gratitude goes to my first promotor, Professor Henk Busscher, who guided my research steps from the very beginning. Beste Henk, without your constant commitment, this thesis would have never come to this point! Thank you for your continued challenge, efficient feedback, and your patience. It was an honor and pleasure to work under your supervision and I learned a lot from you in both scientific and management skills. Above all, thank you for teaching me that there is an opportunity in every difficulty.

I am also indebted to my second promotor, Professor Henny van der Mei. Beste Henny, your door has always been open for questions and discussions. Thank you for all your help and guidance you have granted me all these years and most importantly for teaching me how to take criticism into a constructive way.

During the last four years I had a great experience working with people from the Polymer Chemistry Department. I would like to thank my third promotor Professor Ton Loontjens for his unique approach of making chemistry much nicer and simpler. Beste Ton, your skills and knowledge made our collaboration realistic and feasible! Thank you for the time and effort invested and most of all for being so supportive and positive.

Dear Lia, thank you for the nice discussions during our meetings and trips to Utrecht, and for all the stacks of samples you prepared for me. I wish you best of luck with your carrier and if faith decides I hope we repeat such collaboration in the future.

Working with gene expression would have never been possible without the guidance and help of Dr. Bastiaan Krom. Dear Bastiaan, thank you for all the time you spent teaching me molecular biology techniques.
Words of gratitude are addressed to the STW committee members for their involvement in this research, valuable work discussions, insightful observations, and good practical advises!

To the members of the reading committee, I thank them for taking time to assess this thesis and their positive evaluation.

Dear co-authors, I am grateful for the opportunity to have met you and worked with you. Your help left fingerprints on every page of this thesis. I thank you for keeping the scientific standards high!

I enjoyed collaborating with Professor Matthew Libera. Thank you for all your help granted during this project, and valuable feedback. I really appreciated my time at Stevens and for all the arrangements you have done during my stay there. Thank you Aidan for all the sample analysis you have done. I wish you good luck in the future.

Dear Danielle, I am grateful for your guidance, supporting attitude and help. Thank you for making this nice Dutch summary.

The art of AFM microscopy was kindly and patiently described by Joop de Vries. Dear Joop, thank you for all your support and assistance with experimental practice, guidance in data analysis and enormous help with thesis cover and formatting.

Dear Diana, you involvement and hard working hours made possible Chapter 4. It was a pleasure to work with you. Thank you for all your help and I wish you best of success with your future researcher carrier.

Theo van Kooten is gratefully acknowledged for his guidance with the CLSM. I thank Minnie for introducing me to some of the techniques in the laboratory even from the first day of my PhD training and her pleasant assistance when it was needed. Hans, I am grateful for your help with all the COMSTAT analysis and for being there whenever the zeta potential and contact angle equipments gave me problems. Willy, I am indebted to you for
Acknowledgements

all your helpful advices granted with technical equipment and sample analysis.

Ed, I thank you for being there whenever I had problems with my computer.

Ina, Willy, Ellen and Wya I would like to thank you all for your continuous support with administrative matters and other related matters.

I was fortunate to have really nice office colleagues in the past four years. Thank you: Das, Adam, Reza, Marco, Mojtba, Song and Brian for being there for me in all my good and challenging moments. Therefore, ultimately I couldn’t be happier about the experiences that gave me an opportunity to learn more about you and myself in my time at BME.

I would like to address special thanks to my paranymphs: Joop for being there whenever I needed you and Katya for you precious friendship and support during these years.

In my daily work I have been blessed with a friendly and cheerful group of fellow students. I would like to thank all the people from the BME department for all the nice coffee breaks, lab out-ings and cheerful discussions.

My dearest Romanian friends in Groningen: Daniela, Oana, Dragoș, Maria, Orest, Mia, Mihai, Laura, Geo, Carmen, Raluca, you made the good times better and the difficult times easier to swallow! Whether it was the words of kindness, an unforgettable gift, a long warm hug, baked cookies, hanging out, or conversations that lasted into the wee hours of the night, I am forever grateful. Your friendship means a lot to me; thank you for being by my side!

Familia mea a fost atat de importante pentru mine. Am fost binecuvântată în această viață să am parte de părinți minunăți. Dragă mamă și tată, fără dragostea, suportul și sacrificiul vostru nu aș fi ajuns în acest stadiu al carierei mele. Încurajările voastre și atitudinea pozitivă mi-au dat puterea și abilitatea să îndeplinesc tot ce mi-am propus în viața. Dragă tată, tu ai reprezentat un model de personalitate, angajament și responsabilitate. Pierderea ta fost cel mai dureros moment din viața mea, această carte este dedicate memoriei tale.
Acknowledgements

Words are too simple to express my love and gratitude I have for my dearest husband Ciprian. Thank you for lending me your dreams and accepting my dreams as if they were yours! Your encouragement, patience and support in every decision I took, made my path easier on the course to victory. Above all, you have taught me that in life it matters what you have but most of all it matters who you have next to you. One simply could not wish for a better partner. Sunt fericita alaturi de tine! Te iubesc!

Matei, my dear sweat baby boy. My life has never been more complete since you came into my world. Every day with you has been priceless. Te iubesc!

Thank you!
ACKNOWLEDGEMENTS

This thesis is supported by the Dutch Technology Foundation STW, which is part of the Netherlands Organisation for Scientific Research (NWO) and partly funded by the Ministry of Economic Affairs, Agriculture and Innovation (grant # GPC 7844) and the W.J. Kolff Institute.