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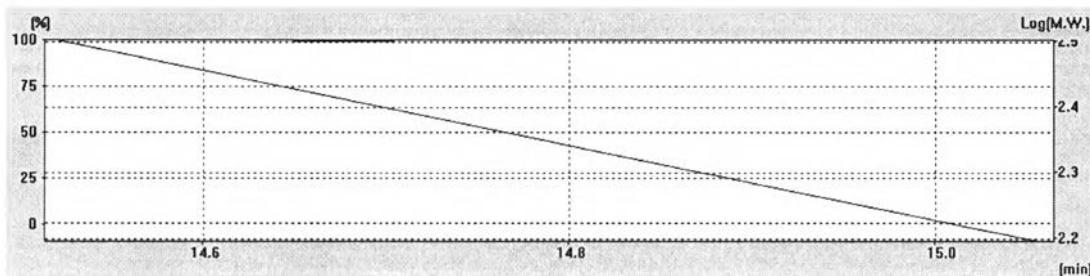
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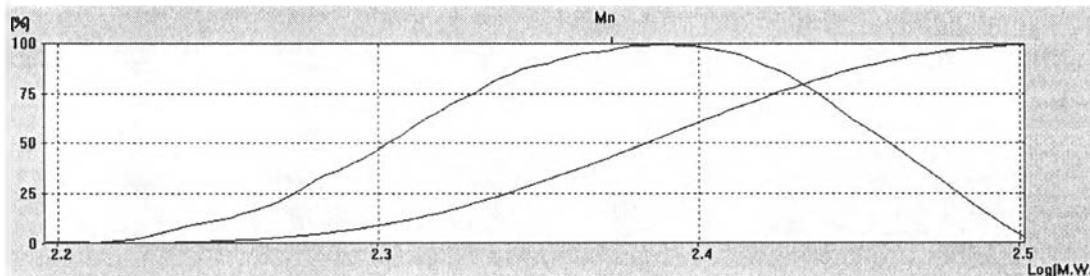
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## APPENDICES

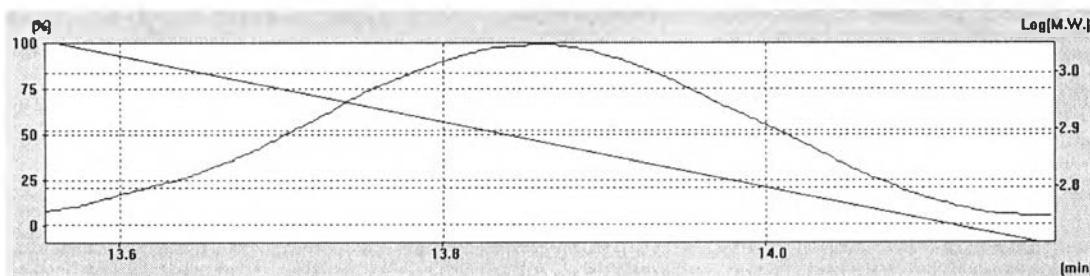
### Appendix A Molecular weight measurement of silk sericin from four species of Thai silk cocoon



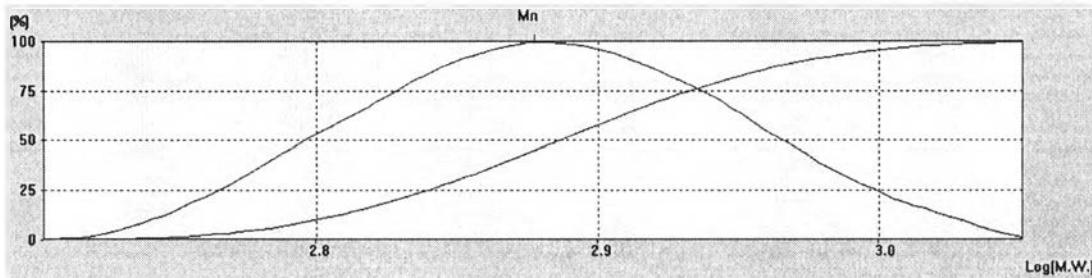
**Figure A1** The calculation of M<sub>w</sub> of Dok Bua sericin with polystyrene reference.



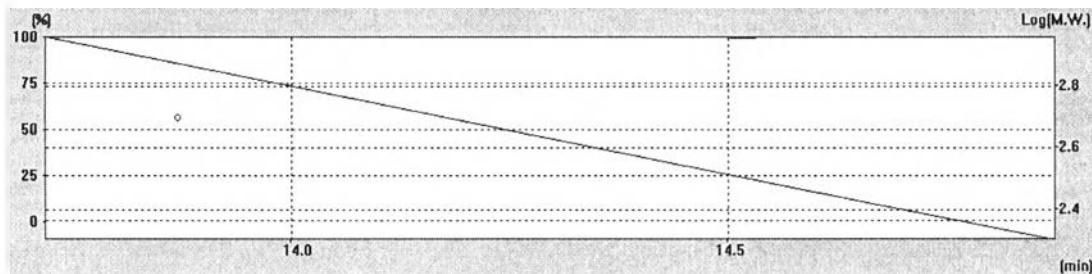
**Figure A2** The calculation of M<sub>n</sub> and M<sub>w</sub> of Dok Bua sericin.



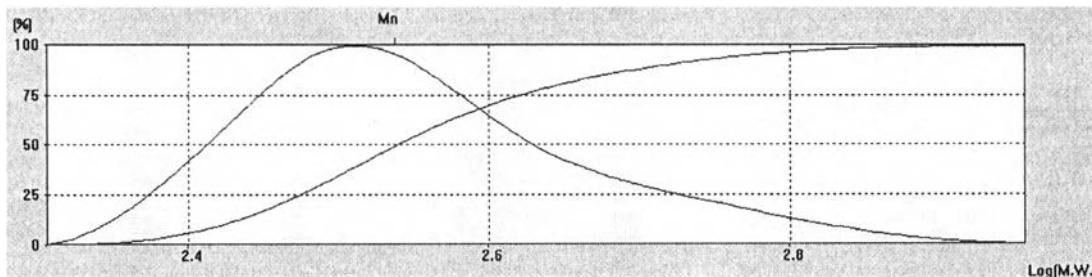
**Figure A3** The calculation of M<sub>w</sub> of Luang Pirote sericin with polystyrene reference.



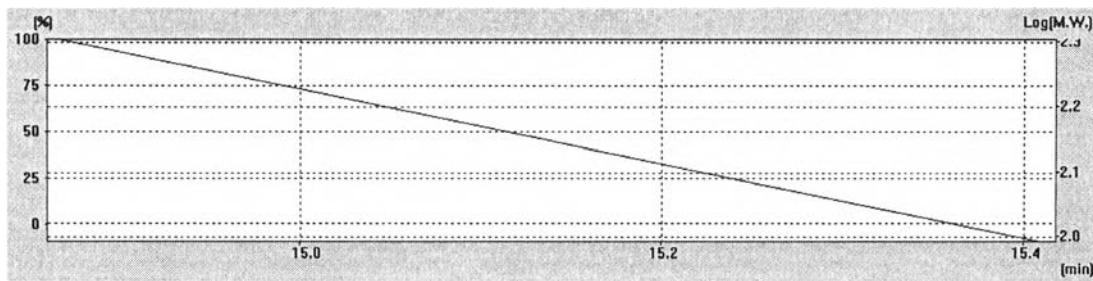
**Figure A4** The calculation of  $M_n$  and  $M_w$  of Luang Pirote sericin.



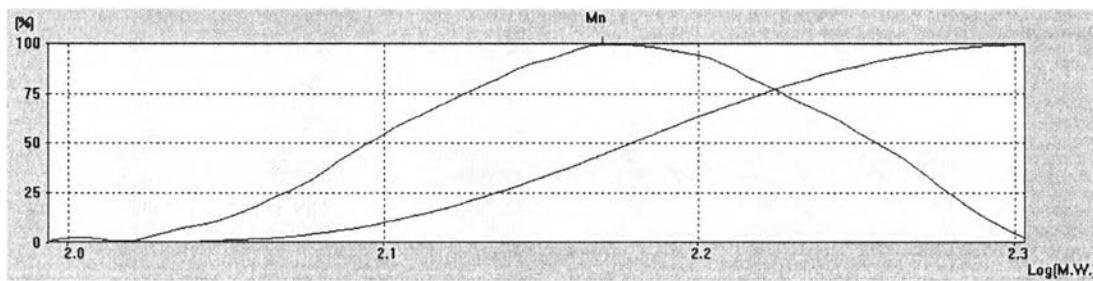
**Figure A5** The calculation of  $M_w$  of Nang Noi sericin with polystyrene reference.



**Figure A6** The calculation of  $M_n$  and  $M_w$  of Nang Noi sericin.

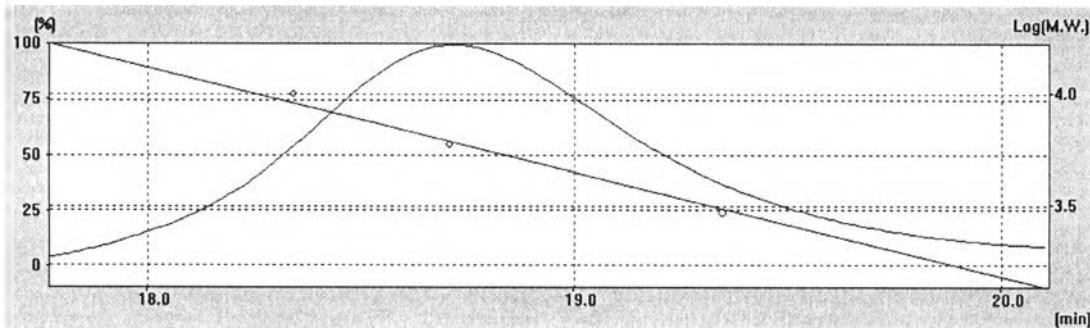


**Figure A7** The calculation of  $M_w$  of Nang Lai sericin with polystyrene reference.

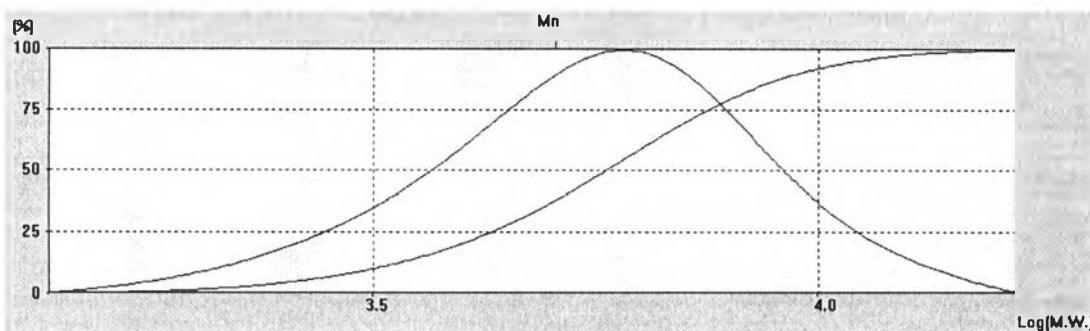


**Figure A8** The calculation of  $M_n$  and  $M_w$  of Nang Lai sericin.

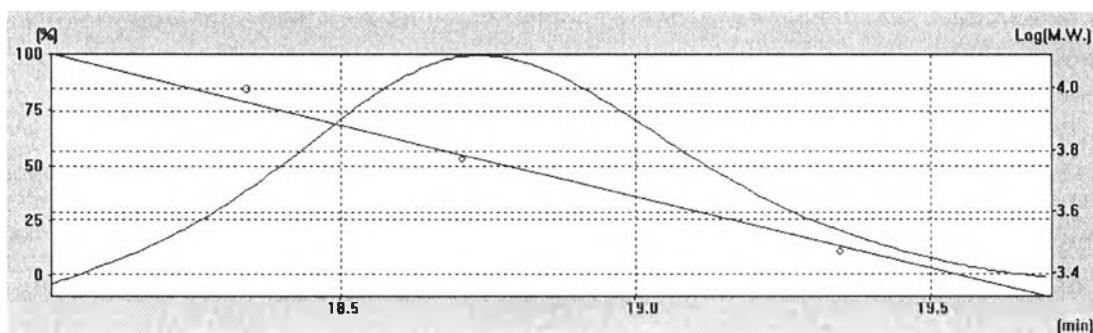
**Appendix B Molecular weight measurement of sericin-g-PLA from four species of Thai silk cocoon (sericin 2 wt% and LA monomer 98 wt%)**



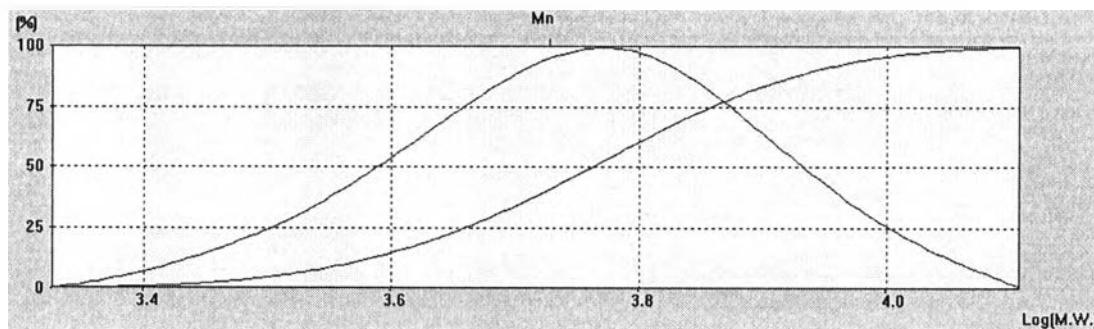
**Figure B1** The calculation of  $M_w$  of Dok Bua-g-PLA with polystyrene reference.



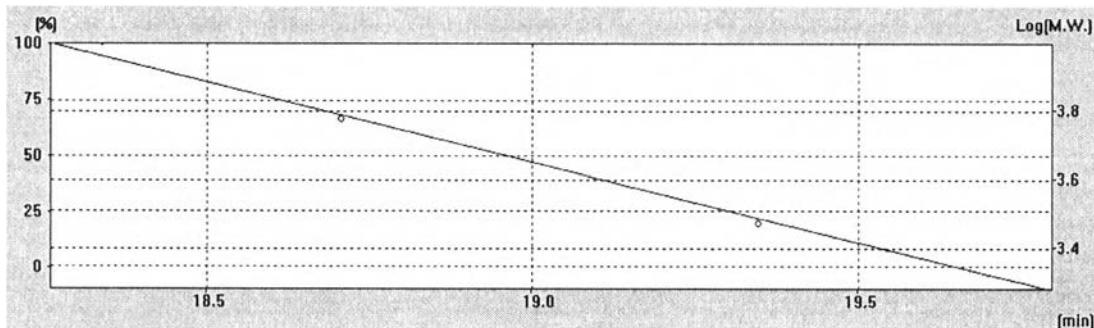
**Figure B2** The calculation of  $M_n$  and  $M_w$  of Dok Bua-g-PLA.



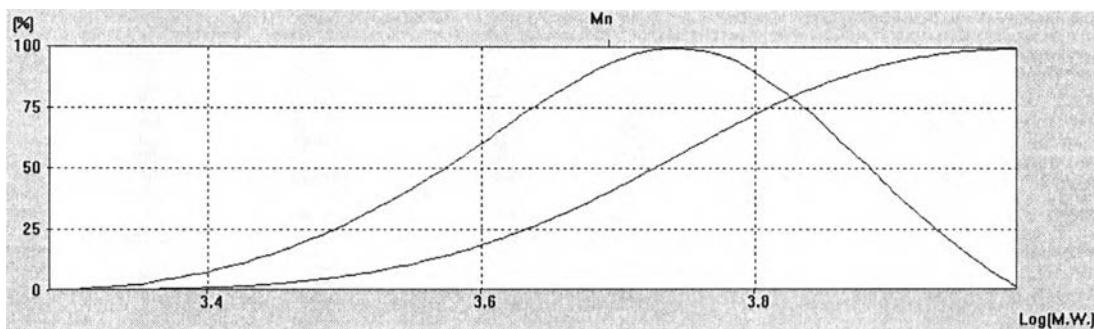
**Figure B3** The calculation of  $M_w$  of Luang Pirote-g-PLA with polystyrene reference.



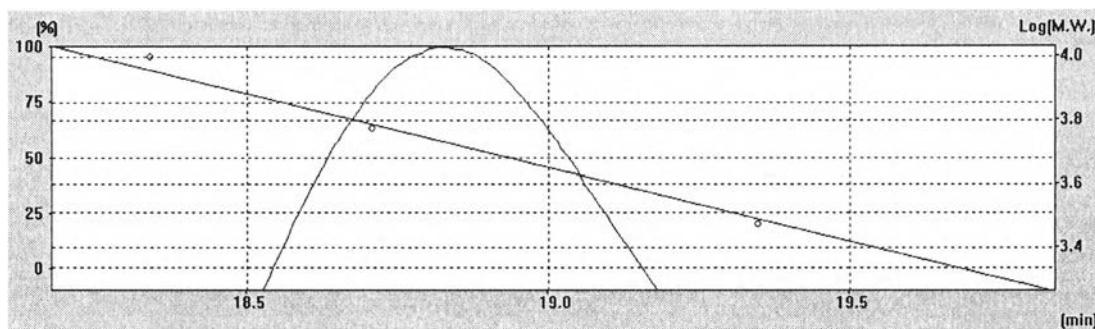
**Figure B4** The calculation of  $M_n$  and  $M_w$  of Luang Pirote-g-PLA.



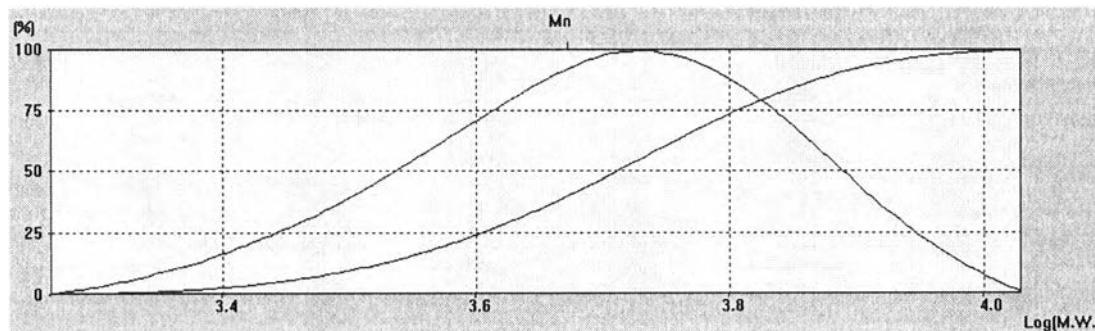
**Figure B5** The calculation of  $M_w$  of Nang Noi-g-PLA with polystyrene reference.



**Figure B6** The calculation of  $M_n$  and  $M_w$  of Nang Noi-g-PLA.

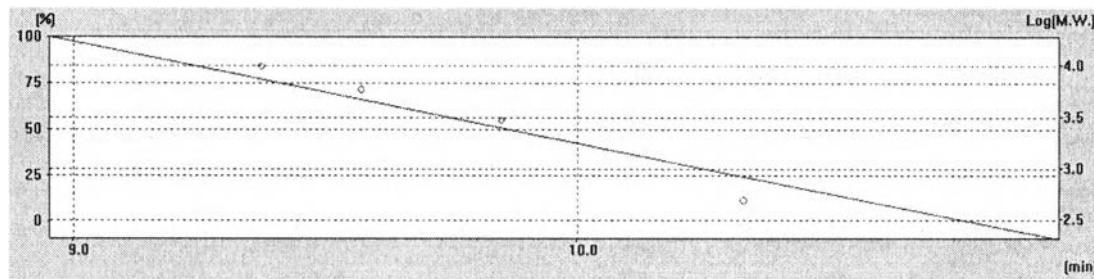


**Figure B7** The calculation of  $M_w$  of Nang Lai-g-PLA with polystyrene reference.

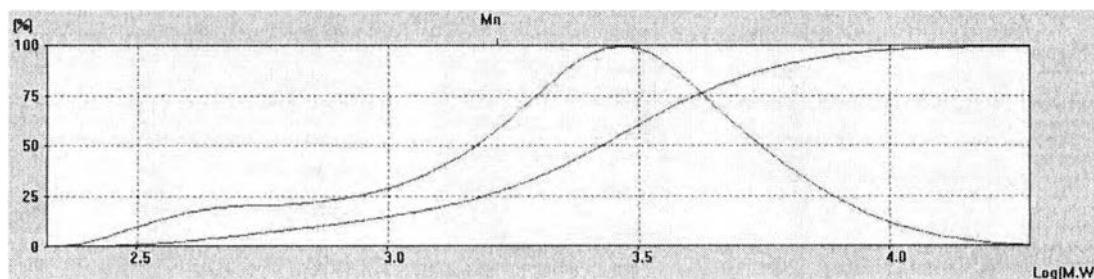


**Figure B8** The calculation of  $M_n$  and  $M_w$  of Nang Lai-g-PLA.

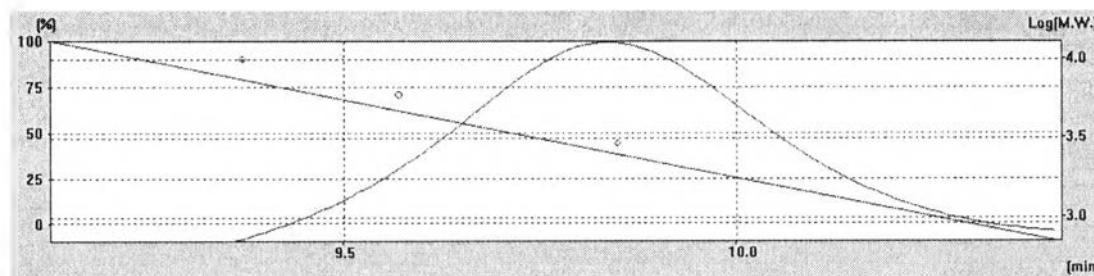
**Appendix C Molecular weight measurement of sericin-g-PLA with different mass ratios between Nang Lai sericin and LA monomer**



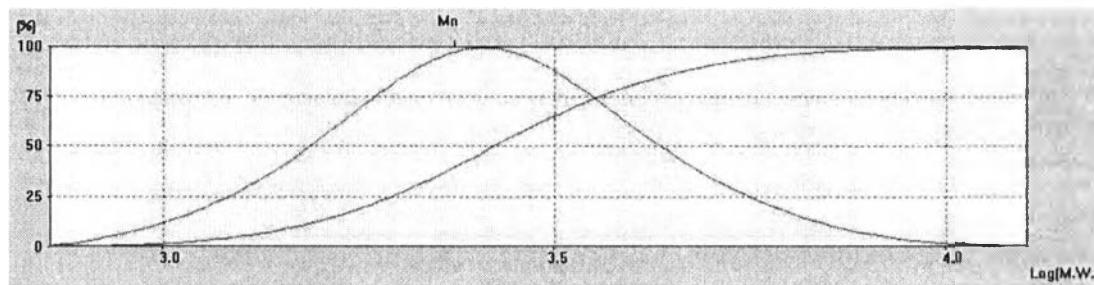
**Figure C1** The calculation of  $M_w$  of NL4PLA96 with polystyrene reference.



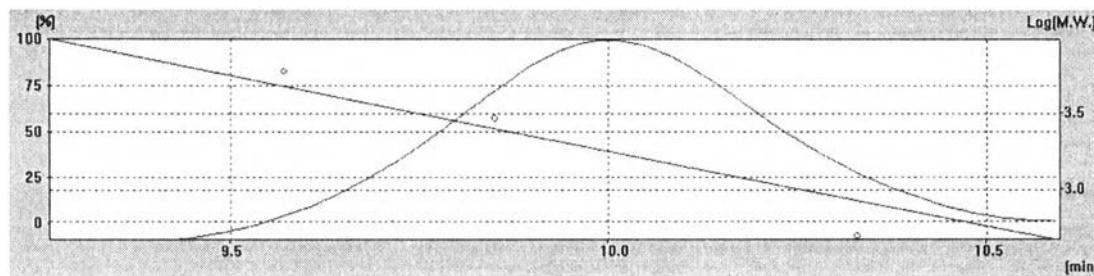
**Figure C2** The calculation of  $M_n$  and  $M_w$  of NL4PLA96.



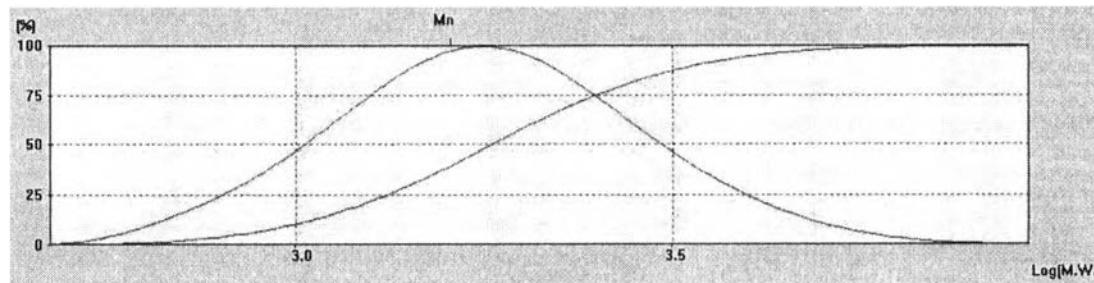
**Figure C3** The calculation of  $M_w$  of NL6PLA94 with polystyrene reference.



**Figure C4** The calculation of  $M_n$  and  $M_w$  of NL6PLA94.



**Figure C5** The calculation of  $M_w$  of NL8PLA92 with polystyrene reference.



**Figure C6** The calculation of  $M_n$  and  $M_w$  of NL8PLA92.

## CURRICULUM VITAE

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**Proceedings:**

1. Saetae, S.; and Maharaphan, R. (2014, April 22) Mechanical Properties and Ethylene Adsorption of Sericin-g-PLA Clay Aerogel with Acrylic Acid. Proceeding of the 5<sup>th</sup> Research Symposium on Petrochemical and Materials Technology and the 20<sup>th</sup> PPC Symposium on Petroleum, Petrochemical, and Polymers, Ballroom, Queen Sirikit National Convention Center, Bangkok, Thailand.

**Presentations:**

1. Saetae, S.; and Magaraphan, R. (2014, March 20-21) Preparation and Study of Sericin-g-PLA Clay Aerogel for Ethylene Adsorption Application. Paper presented at the 4<sup>th</sup> Polymer Conference of Thailand, Bangkok, Thailand.
2. Saetae, S.; and Magaraphan, R. (2014, April 22) Mechanical Properties and Ethylene Adsorption of Sericin-g-PLA Clay Aerogel with Acrylic Acid. Paper presented at the 5<sup>th</sup> Research Symposium on Petrochemical and Materials Technology and The 20<sup>th</sup> PPC Symposium on Petroleum, Petrochemical, and Polymers. Bangkok, Thailand.
3. Saetae, S.; and Magaraphan, R. (2014, June 8-12) Synthesis and Study of Sericin-g-PLA. Paper presented at the Polymer Processing Society 30<sup>th</sup> Annual Meeting. Ohio, USA.