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APPENDICES

APPENDIX A

VISCOSITY AND SHEAR STRESS OF INKS

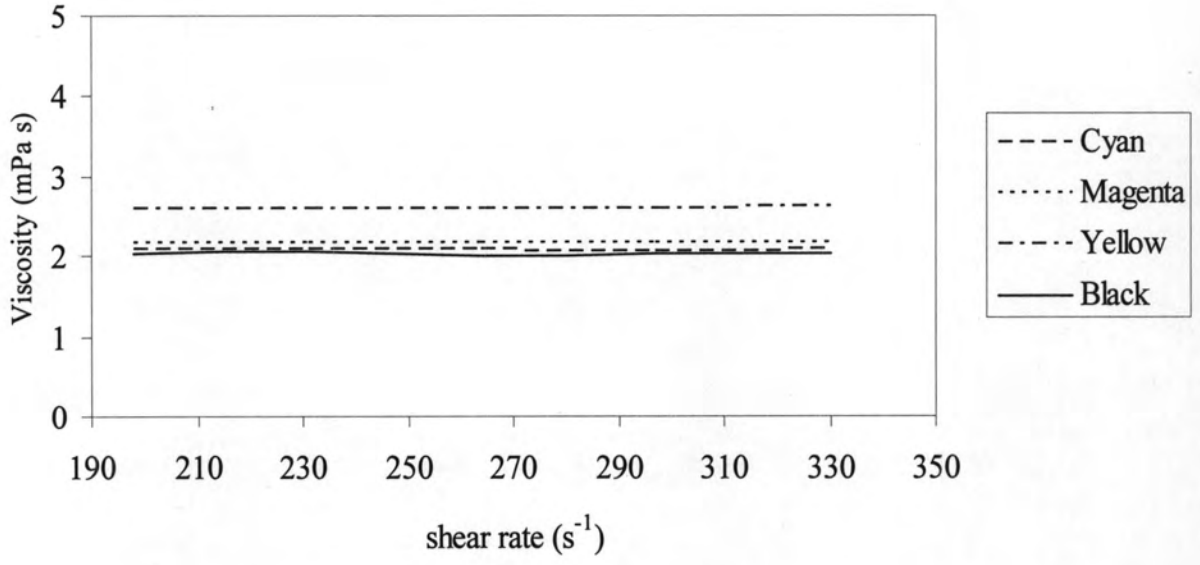

Figure A1: Viscosity of the 1:1 pigment-to-binder ratio from the 70-nm binder.

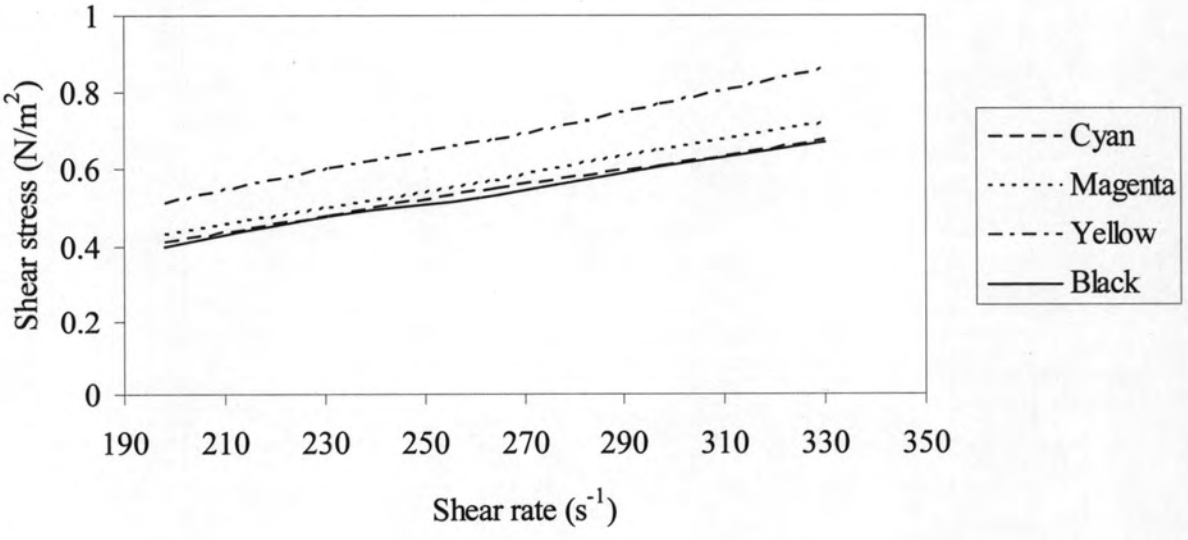

Figure A2: Shear stress of the 1:1 pigment-to-binder ratio from the 70-nm binder.

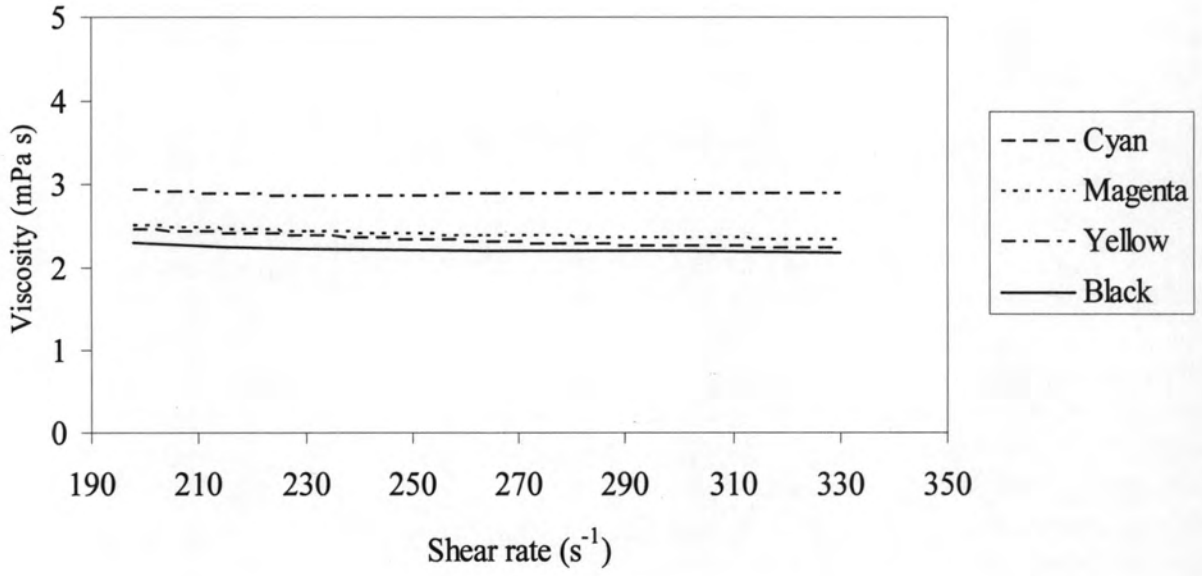

Figure A3: Viscosity of the 1:1 pigment-to-binder ratio from the 180-nm binder.

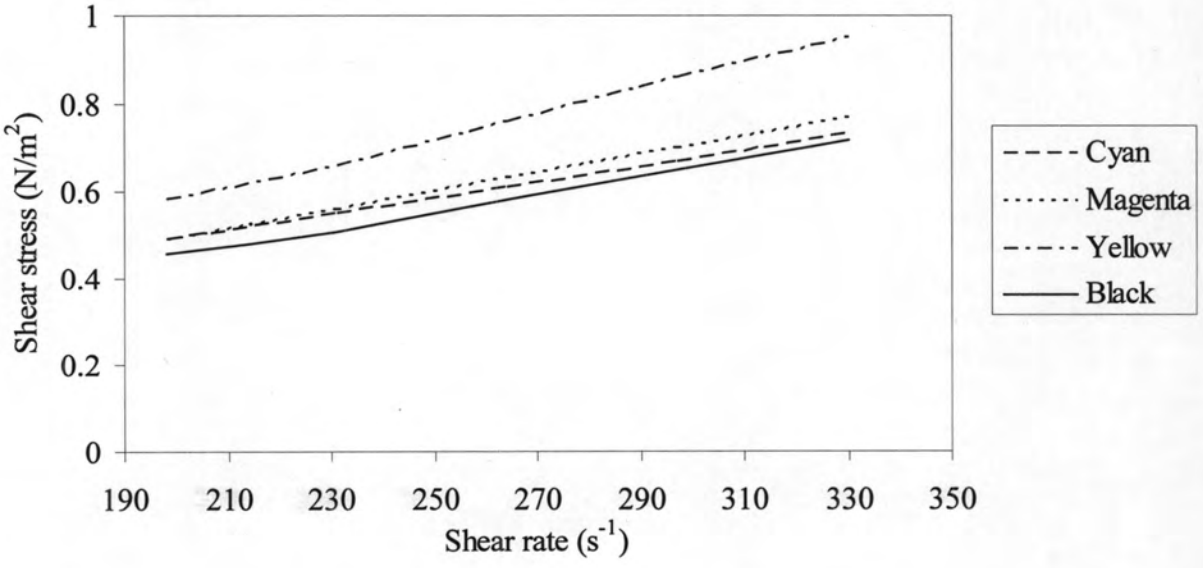

Figure A4: Shear stress of the 1:1 pigment-to-binder ratio from the 180-nm binder.

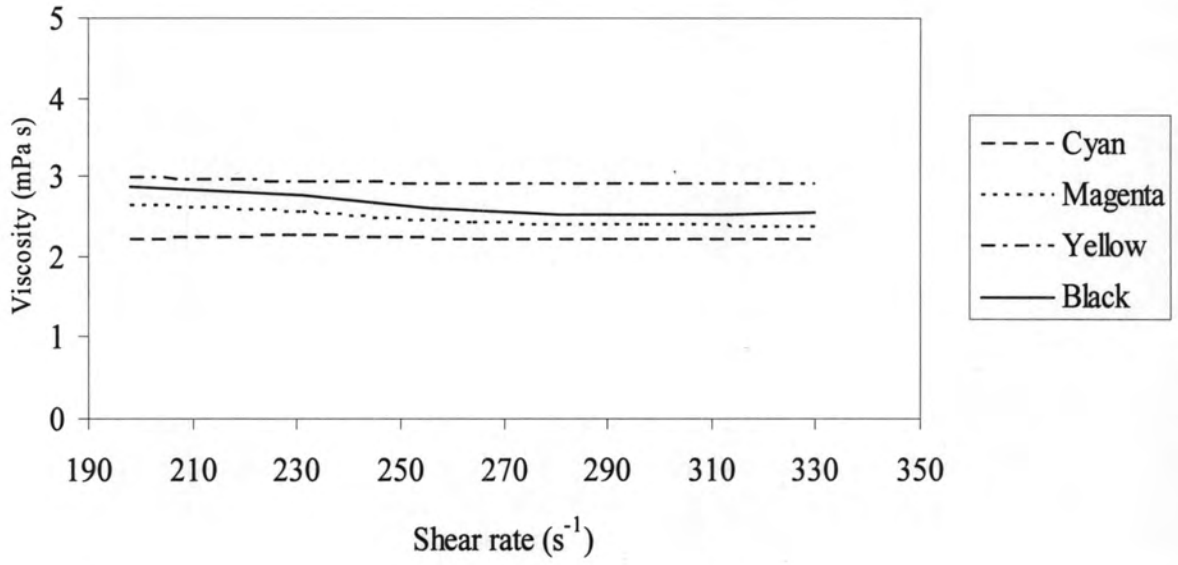

Figure A5: Viscosity of the 1:2 pigment-to-binder ratio from the 70-nm binder.

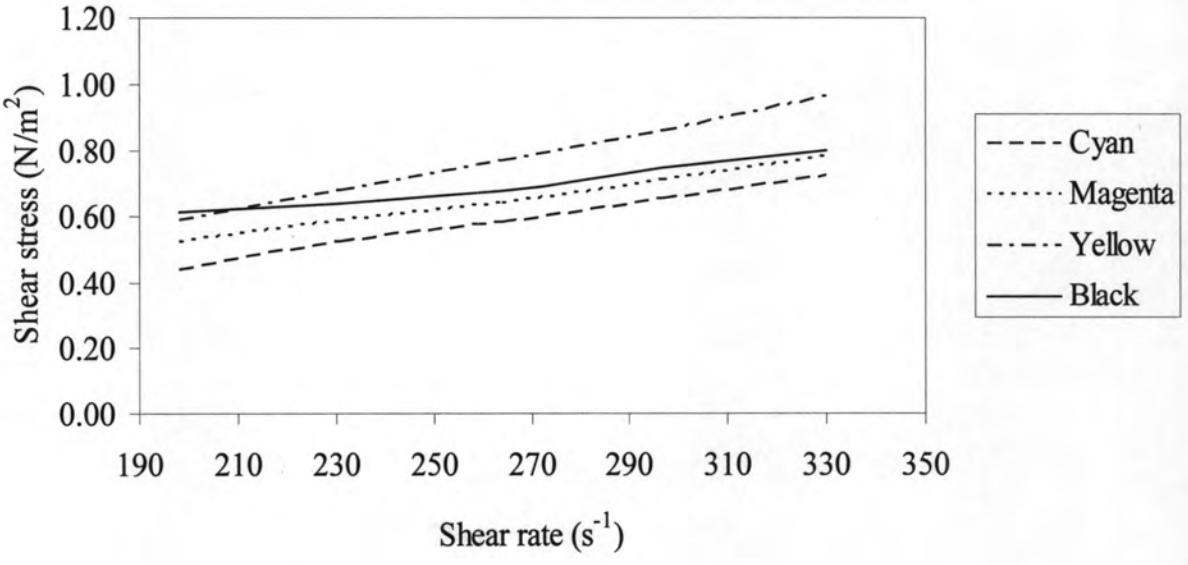

Figure A6: Shear stress of the 1:2 pigment-to-binder ratio from the 70-nm binder.

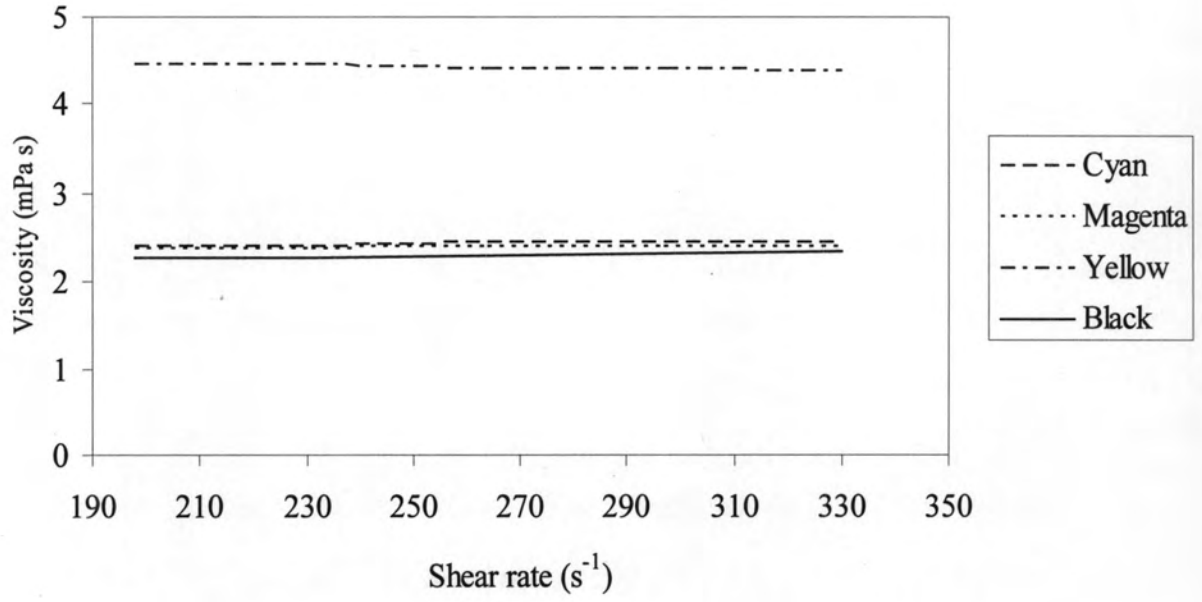

Figure A7: Viscosity of the 1:2 pigment-to-binder ratio from the 180-nm binder.

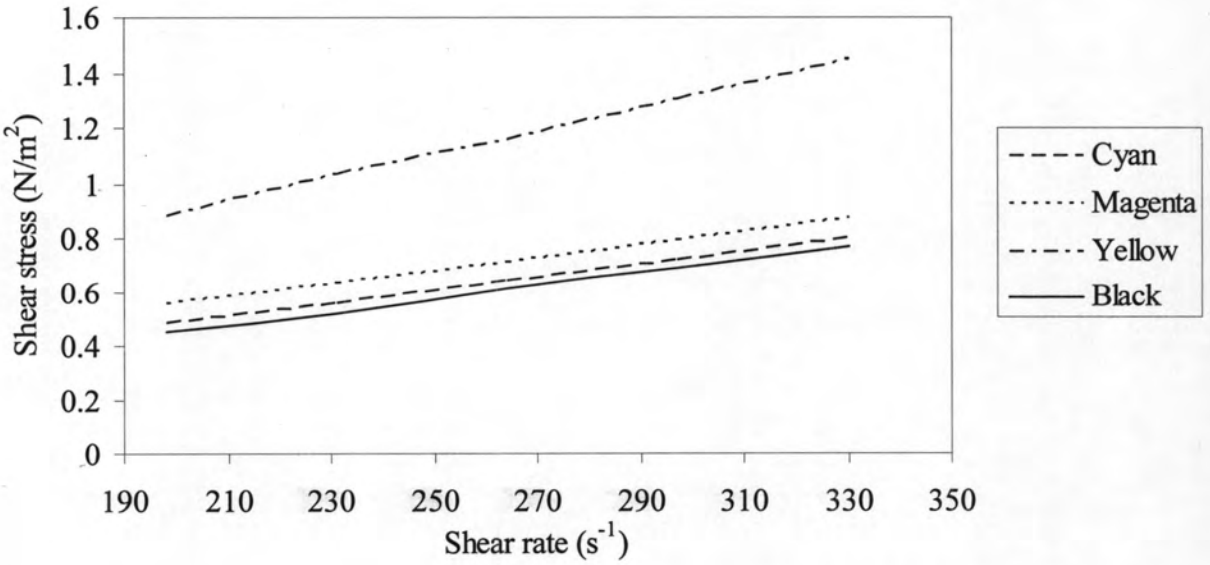

Figure A8: Shear stress of the 1:2 pigment-to-binder ratio from the 180-nm binder.

APPENDIX B

IMAGES OF THE CROSS SECTIONALLY PRINTED SILK FABRICS

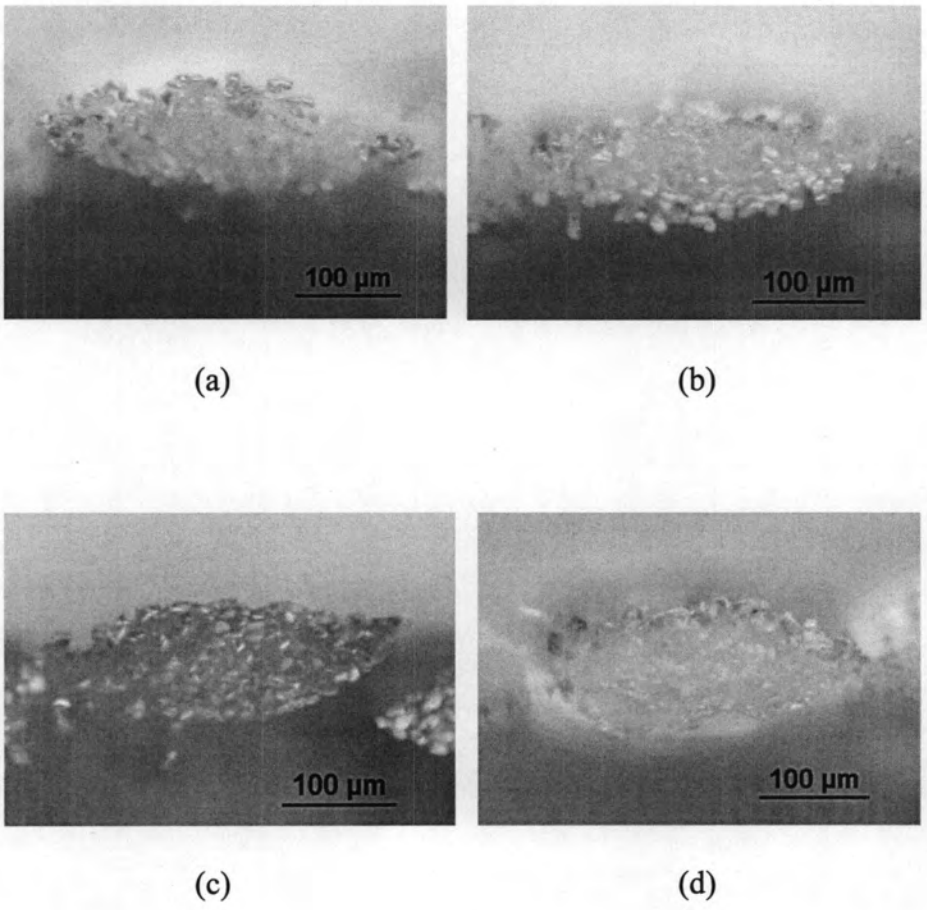

Figure B1: Cross sectional views the of cyan color printed silk by 1:1 pigment-to-binder ratio from (a) 70-nm binder printed on the untreated fabrics, (b) 70-nm binder printed on the 1.5% chitosan treated fabrics, (c) 180-nm binder printed on the untreated fabrics, and (d) 180-nm binder printed on the 1.5% chitosan treated fabrics.

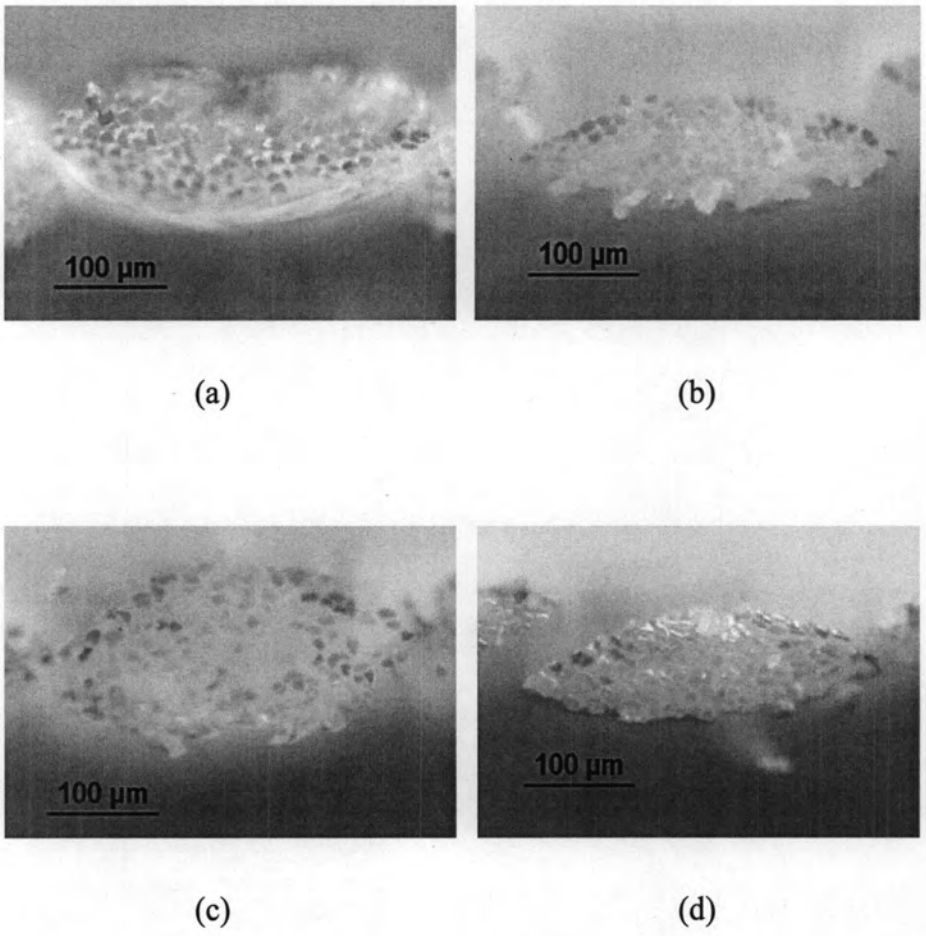

Figure B2: Cross sectional views the of cyan color printed silk by 1:2 pigment-to-binder ratio from (a) 70-nm binder printed on the untreated fabrics, (b) 70-nm binder printed on the 1.5% chitosan treated fabrics, (c) 180-nm binder printed on the untreated fabrics, and (d) 180-nm binder printed on the 1.5% chitosan treated fabrics.

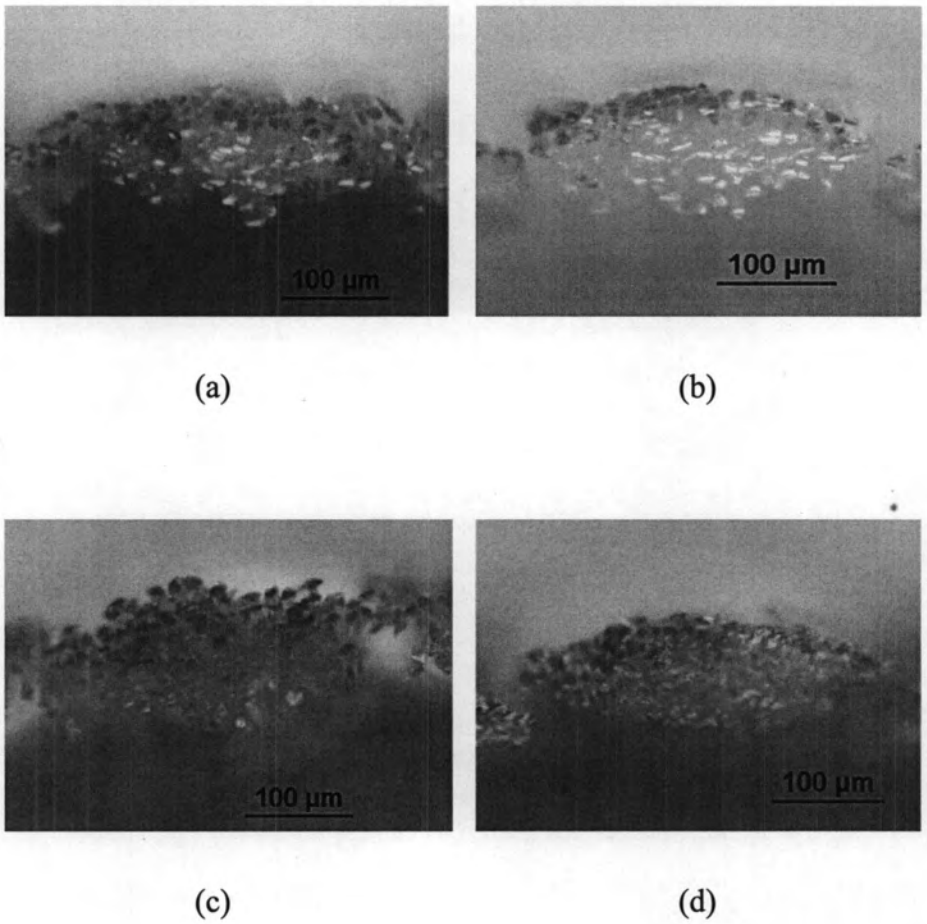

Figure B3: Cross sectional views the of magenta color printed silk by 1:1 pigment-to-binder ratio from (a) 70-nm binder printed on the untreated fabrics, (b) 70-nm binder printed on the 1.5% chitosan treated fabrics, (c) 180-nm binder printed on the untreated fabrics, and (d) 180-nm binder printed on the 1.5% chitosan treated fabrics.

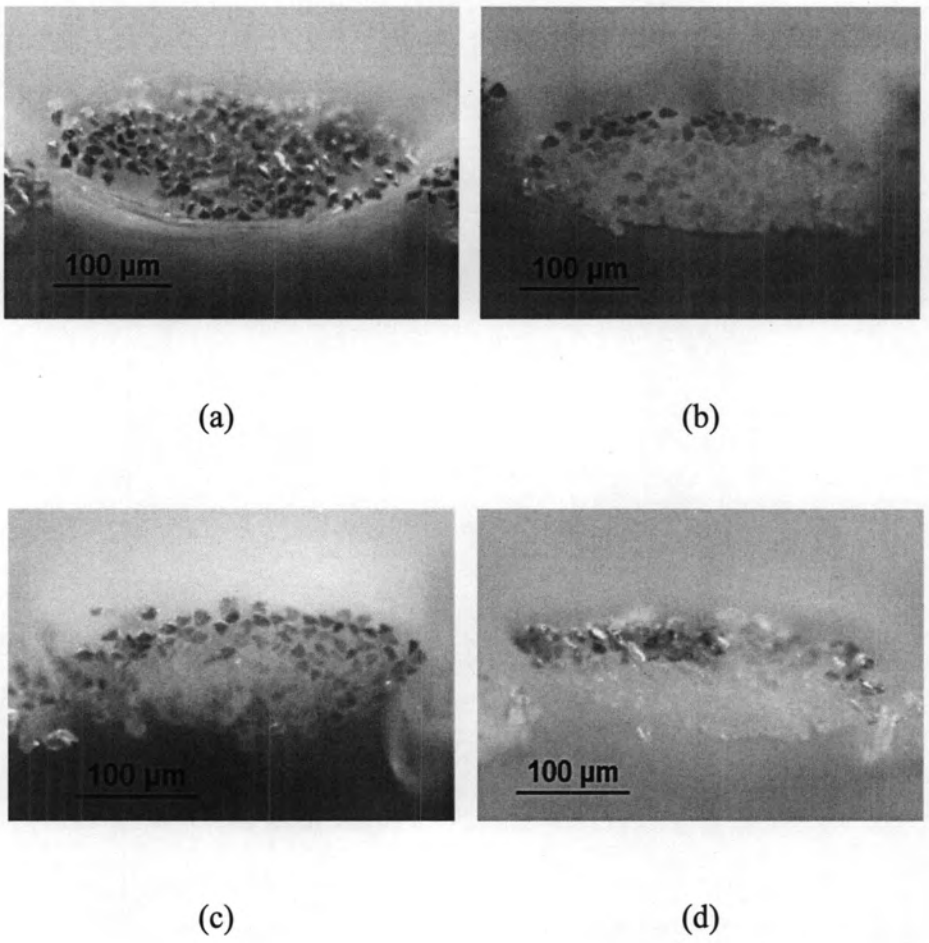

Figure B4: Cross sectional views the of magenta color printed silk by 1:2 pigment-to-binder ratio from (a) 70-nm binder printed on the untreated fabrics, (b) 70-nm binder printed on the 1.5% chitosan treated fabrics, (c) 180-nm binder printed on the untreated fabrics, and (d) 180-nm binder printed on the 1.5% chitosan treated fabrics.

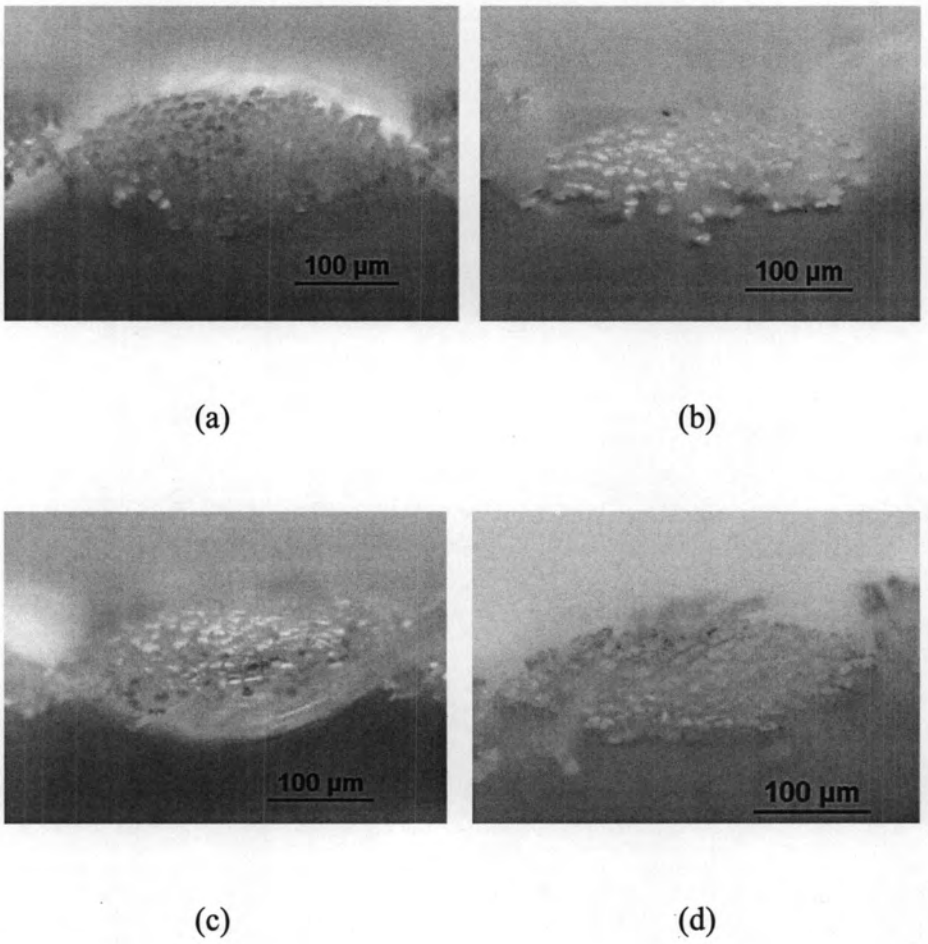

Figure B5: Cross sectional views the of yellow color printed silk by 1:1 pigment-to-binder ratio from (a) 70-nm binder printed on the untreated fabrics, (b) 70-nm binder printed on the 1.5% chitosan treated fabrics, (c) 180-nm binder printed on the untreated fabrics, and (d) 180-nm binder printed on the 1.5% chitosan treated fabrics.

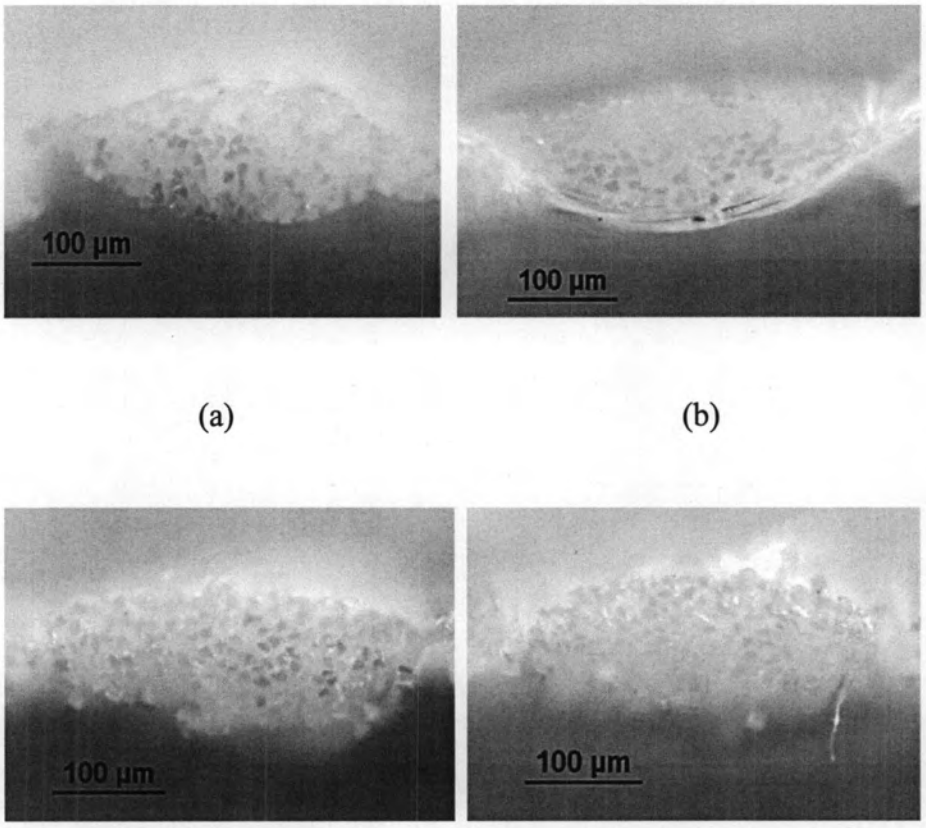

Figure B6: Cross sectional views the of yellow color printed silk by 1:2 pigment-to-binder ratio from (a) 70-nm binder printed on the untreated fabrics, (b) 70-nm binder printed on the 1.5% chitosan treated fabrics, (c) 180-nm binder printed on the untreated fabrics, and (d) 180-nm binder printed on the 1.5% chitosan treated fabrics.

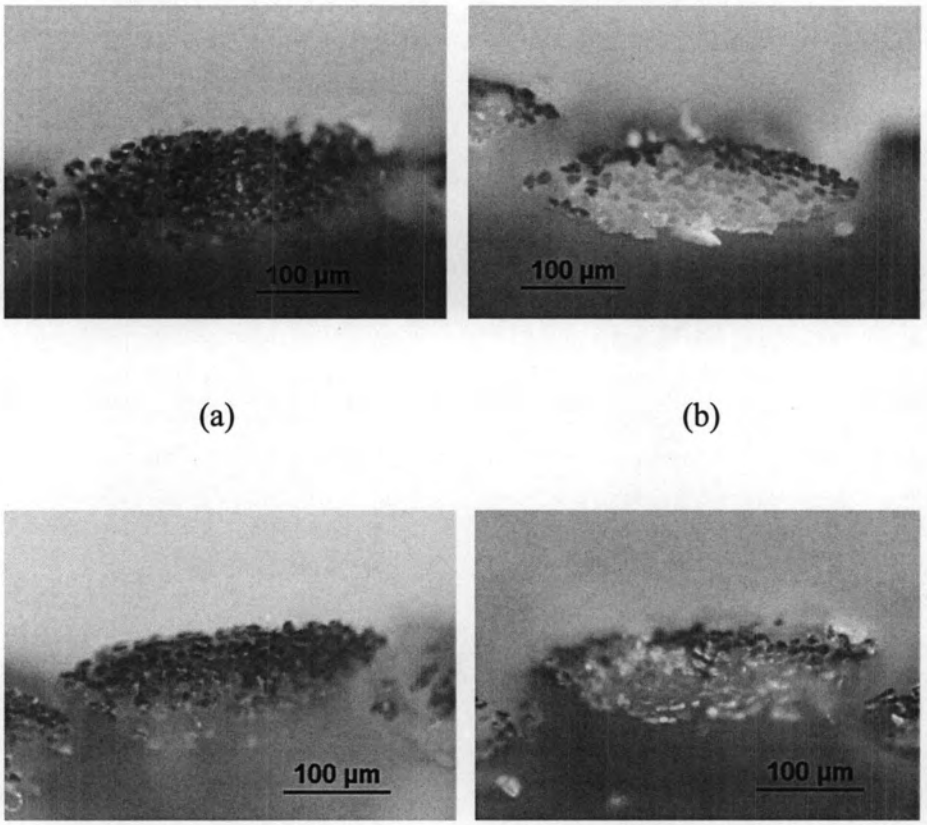

Figure B7: Cross sectional views the of black color printed silk by 1:1 pigment-to-binder ratio from (a) 70-nm binder printed on the untreated fabrics, (b) 70-nm binder printed on the 1.5% chitosan treated fabrics, (c) 180-nm binder printed on the untreated fabrics, and (d) 180-nm binder printed on the 1.5% chitosan treated fabrics.

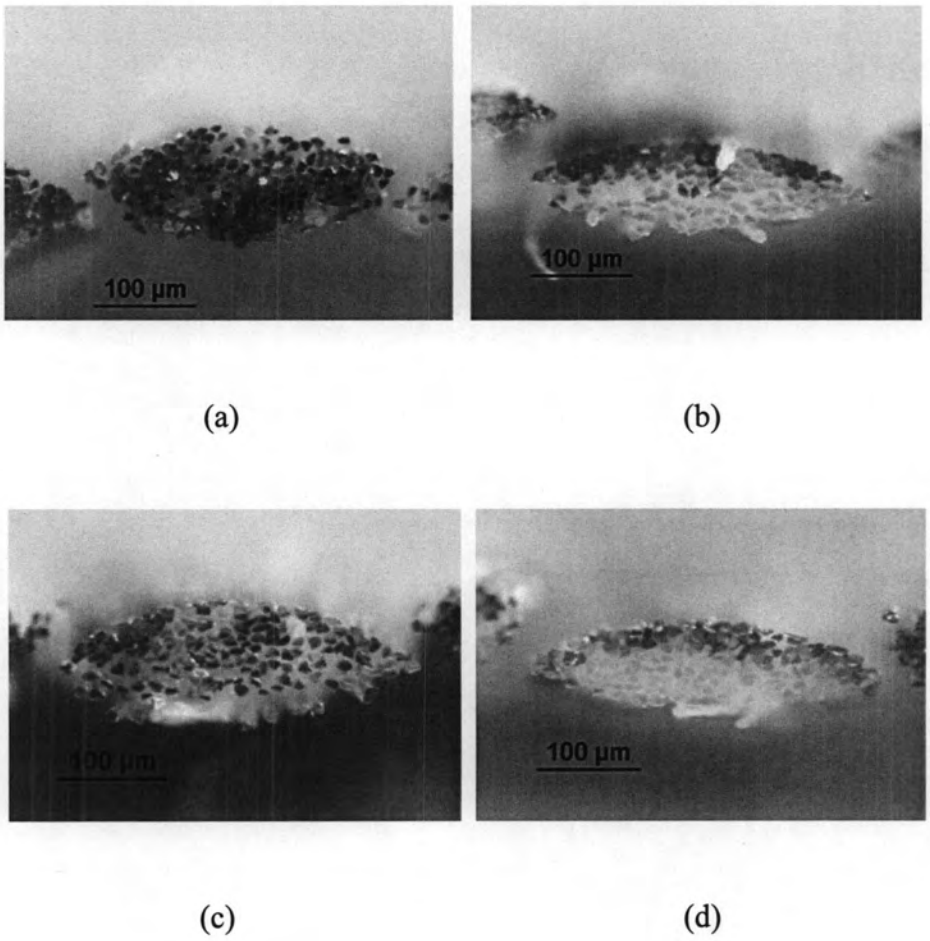

Figure B8: Cross sectional views the of black color printed silk by 1:2 pigment-to-binder ratio from (a) 70-nm binder printed on the untreated fabrics, (b) 70-nm binder printed on the 1.5% chitosan treated fabrics, (c) 180-nm binder printed on the untreated fabrics, and (d) 180-nm binder printed on the 1.5% chitosan treated fabrics.

APPENDIX C

ATOMIC FORCE MICROSCOPE OF BINDERS

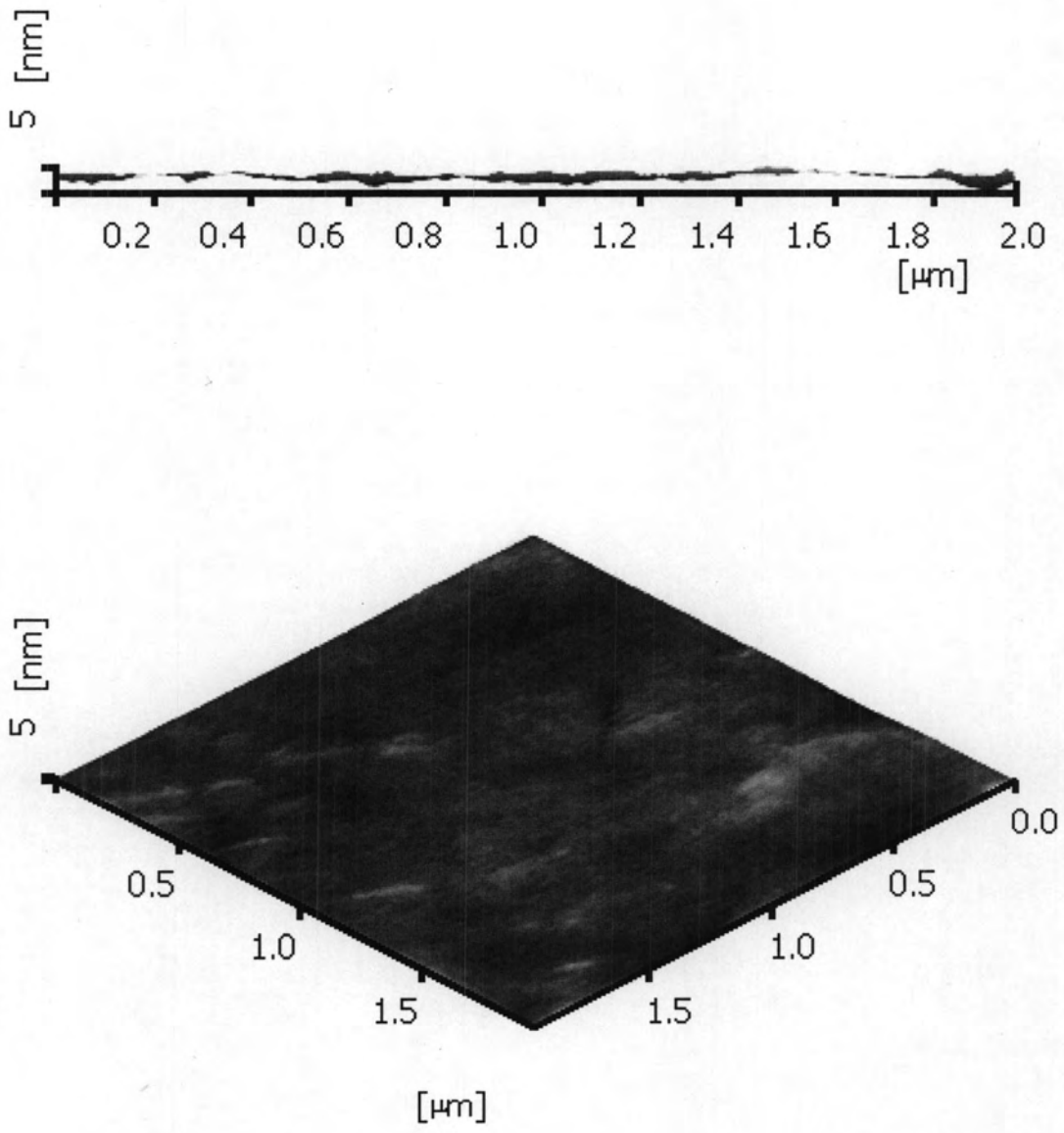

Figure C1: AFM of 70-nm binder.

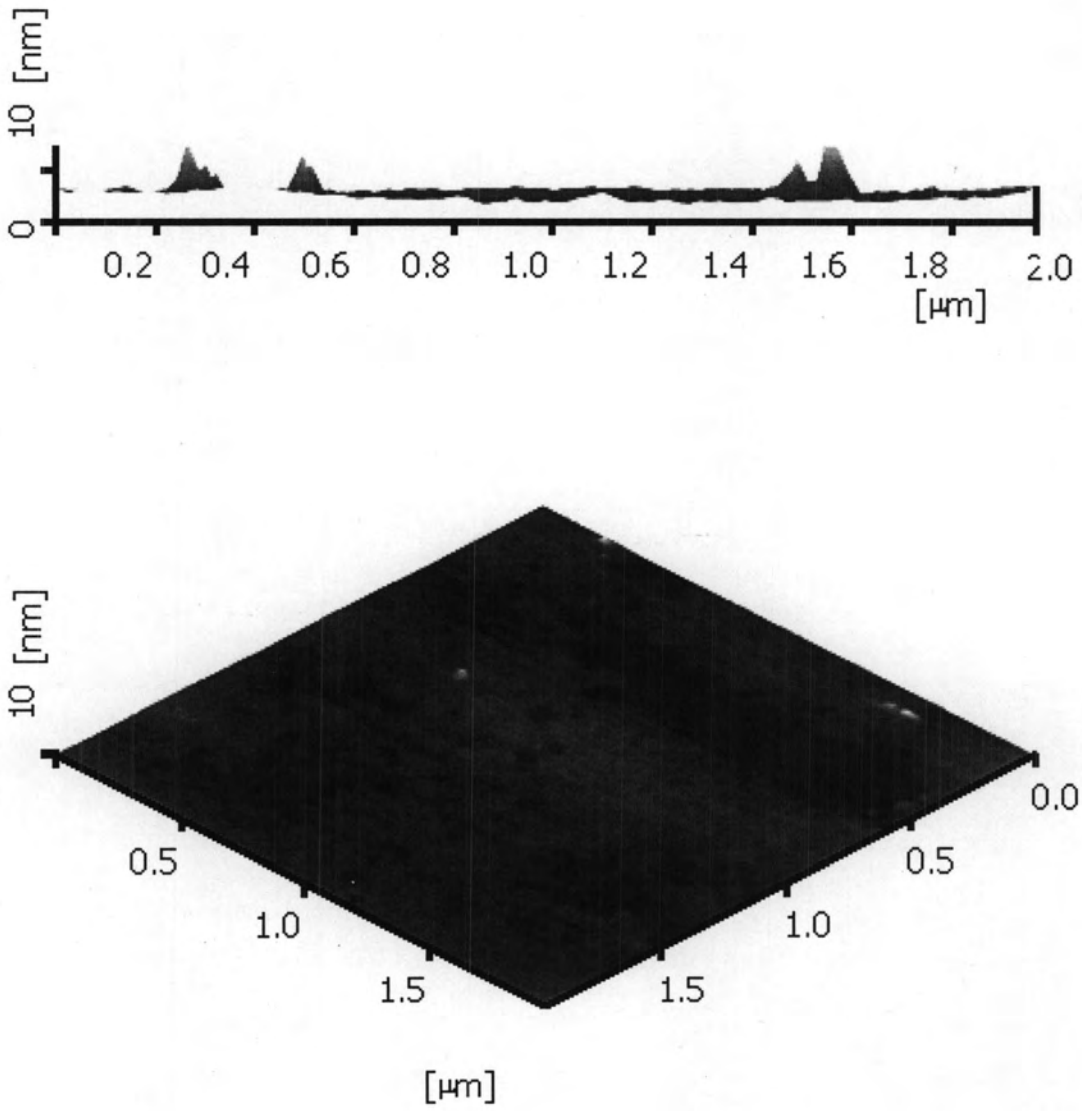

Figure C2: AFM of 180-nm binder.

VITA

Miss Monvadee Suknithipol was born on May 2, 1981 in Bangkok, Thailand. She graduated with a Bachelor's Degree in Packaging Technology from the Faculty of Agro-Industry, Kasetsart University on March 8, 2003. She has been a graduate student in the Program of Imaging Technology, Faculty of Science, Chulalongkorn University since 2005 and finished her Master's degree in Science in May 2008.