

REFERENCES

- Brzoska, J.B., Azouz, I.B. and Rondelez, F. (1994). Silanization of Solid Substrates : A step toward reproducibility. Langmuir. 10, 4367-4373.
- Charrier, J.M. (1991). Polymer Materials and Processing: Plastics, Elastomers and Composites. New York: Hanser Publishers.
- Chrisey, L.A., Lee, G.U. and O'Ferrall, C.E. (1996). Covalent attachment of synthetic DNA to self-assembled monolayer films. Nucleic Acids Research. 24(5), 3031-3039.
- Chrisey, L.A., O'Ferrall, C.E., Spargo, B.J., Dulcey, C.S. and Calvert, J.M. (1996). Fabrication of patterned DNA surfaces. Nucleic Acids Research. 24(15), 3040-3047.
- Clarson, S.J., Semlyen, A.J. (1993). Siloxane polymer. New Jersey: Plentice Hall.
- Corriu, R.J.P., Perz, R. and Reye, C. (1983). Tetrahed. 39, 999.
- Corriu, R.J.P. (1988). Pure and Appl. Chem. 60, 99-160.
- Corriu, R.J.P., Gurein, C., Henner, B.J.L., Wong Chi Man. (1990). Organomet. 9, 2080.
- Cotton, F.A. and Wilkinson, G.F. (1967). The group IV A(14) elements. Advanced Inorganic Chemistry. 5 th ed. New york: John Wiley & Sons, Interscience Publ.
- Hatakeyama, T. and Quinn, F.X. (1994). Thermal Analysis Fundamentals and Applications to Polymer Science. England: John Wiley & Son.
- Kirk-Othemer. (1979). Encyclopedia of Chemical Technology. 3 rd ed. New York: Wiley-Interscience. 20, 750-880.
- Koenig, J.L. (1992). Spectroscopy of Polymer. Washington D.C.: ACS Professional Reference Book.

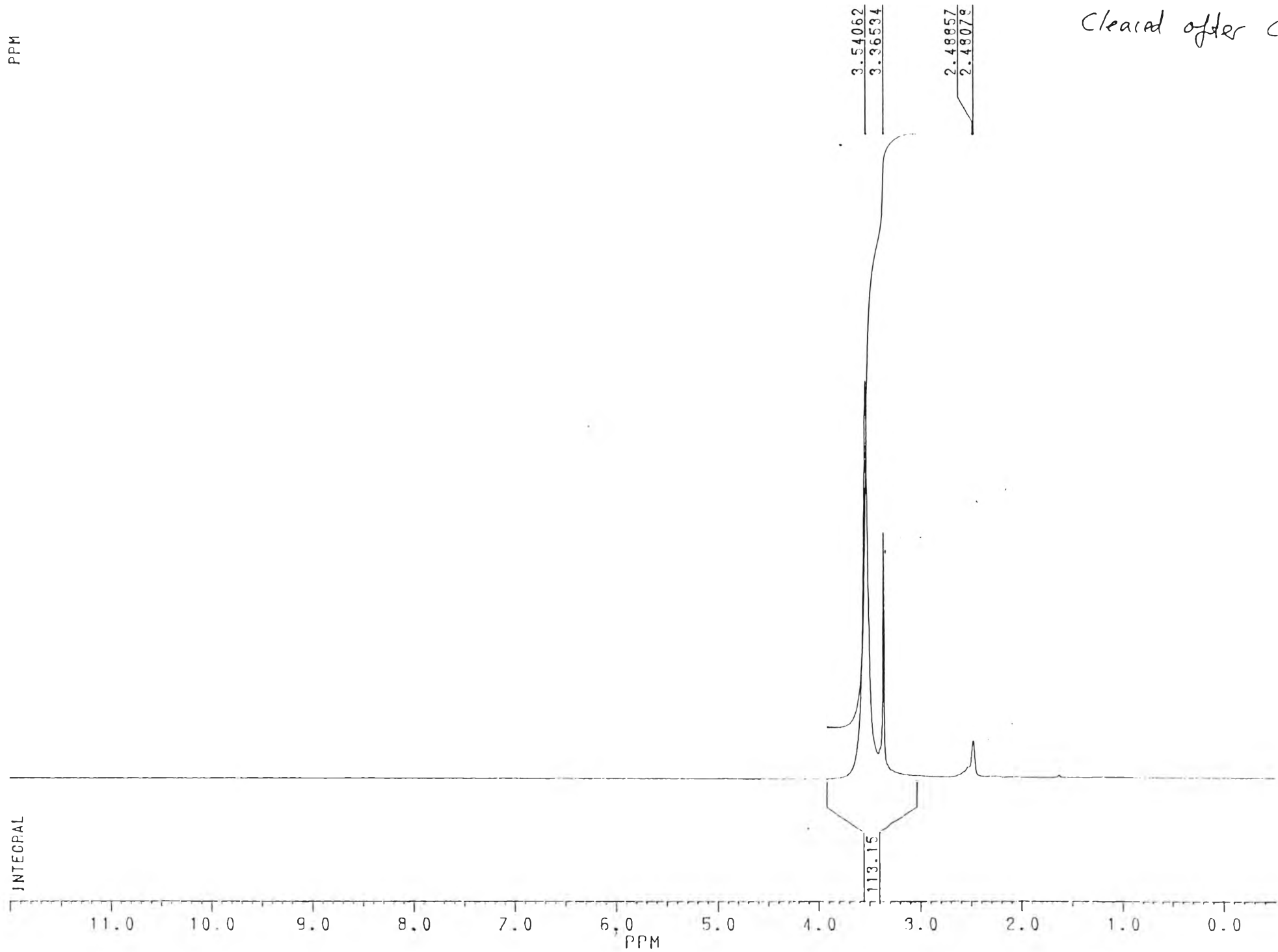
- Kroschwiz, J.I. (Ed.). (1990). Concise Encyclopedia of Polymer Science and Engineering. USA.: John Wiley & Sons.
- Laine, R.M., Mueller, B.L. and Hinkin, T. One Step Synthesis of Neutral Alkoxy Silane and Alanes from SiO₂ and Al(OH)₃. Contribution from the Department of Materials Engineering, and Chemistry of Michigan, Ann Arbor, MI 48109-2136.
- Larson, G.L. (1987). An introduction to organosilicon chemistry, silicon compound register and review. Petrarch System Silanes & Silicon. 9.
- Okumoto, S. and Fujita, N. (1998). Theoretical study of hydrolysis and condensation of silicon alkoxide. J. Phys. Chem. A. 102, 3991-3998.
- Pappas, S.P. (1989). Photocrosslinking. Comprehensive Polymer Science, The Synthesis, Characterization, Reaction and Application of Polymer. 6 th ed. UK: Pergamon Press.
- Rosenhem, A., Raibmann, B. and Schendel, G. (1931). Z. Anorg. Allgem. Chem. 196, 160.
- Shirai, M., Sumino, T. and Tsunooka, M. (1997). Polysiloxane formation at the irradiated surface of polymers containing both photoacid generating units and epoxy units. Eur. Polym. J. 33(8), 1255-1262.
- Shirai, M., Tsunooka, M. (1988). Photoacid and photobase generators: Prospects and their use in the development of polymeric photosensitive system. Bulletin of The Chemical Society of Japan. 71(11), 1255-1262.
- Silverstein, R.M., Bassler, G.C. and Morrill, T.C. (1981). Spectrometric Identification of Organic Compounds. 4 th ed. USA.: John Wiley & Sons.

- Silverstein, R.M., Bassler, G.C. and Morrill, T.C. (1991). Spectrometric Identification of Organic Compounds. 5 th ed. USA.: John Wiley & Sons.
- Skoog, D.A. and Leary, J.J. (1992). Principle of Instrumental Analysis. 4 th ed. USA.: Saunders College Publishing.
- Turner, R.S. and Daly, R.C. (1989). Photochemical and radiation sensitive resist. Comprehensive Polymer Science, The Synthesis, Characterization, Reaction and Application of Polymer. 6 th ed. UK: Pergamon Press.
- Wong, C.P. (Ed.). (1993). Polymers for Electronic and Photonic Application. USA.: Academic Press.
- Yoshino, N., Yamamoto, Y., Hamano, K. and Tokuzo, K. (1993). Synthesis and reactions of metal organics. XVIII. Synthesis of (1H, 1H, 2H, 2H- Polyfluoroalkyl)trimethoxysilanes and surface modification of glass plate. Bull. Chem. Soc. Jpn. 66(6), 1754-1758.

APPENDIX

PPM

cleared after cool.



INTEGRAL

PPM

INTEGRAL

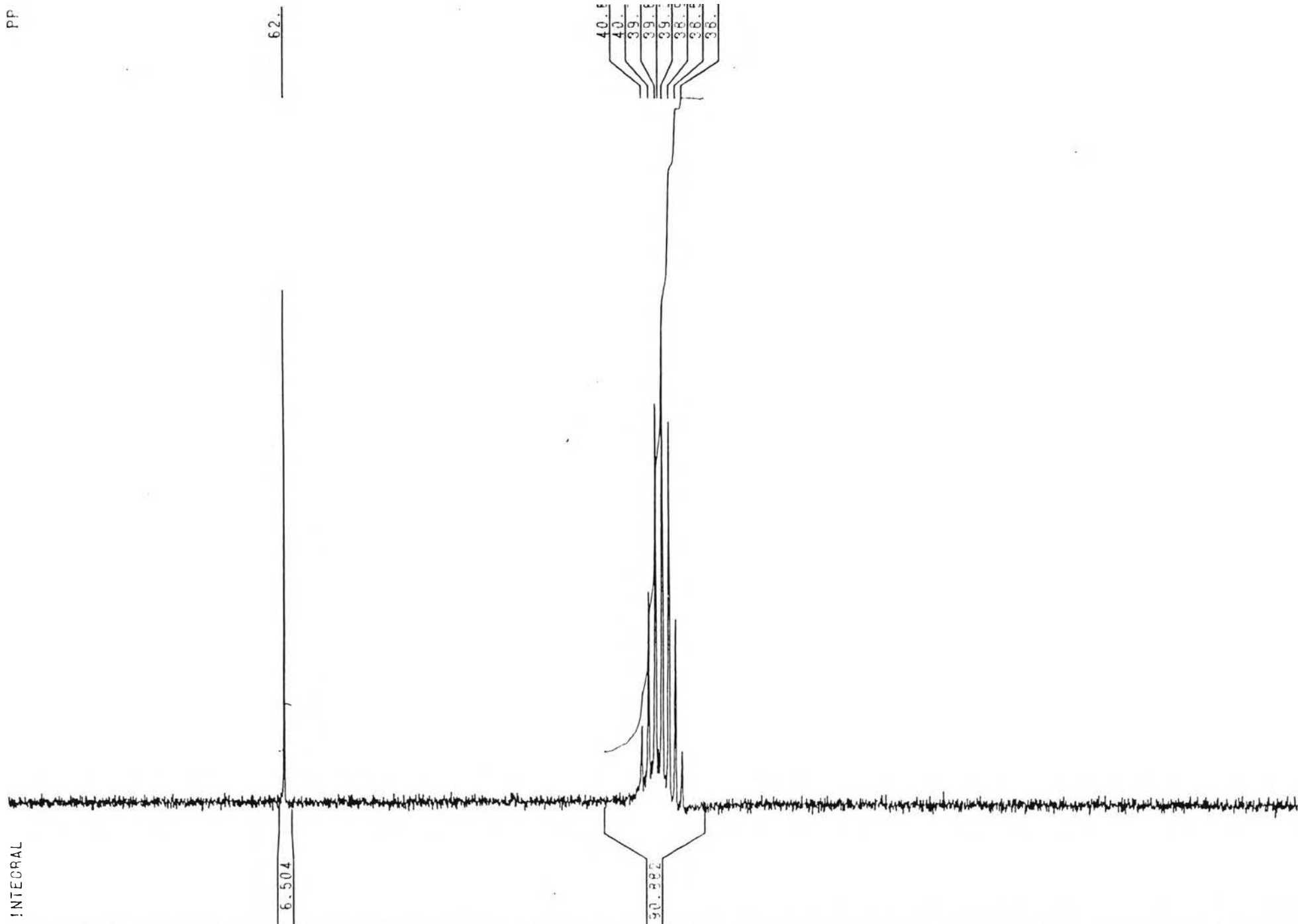
75 70 65 60 55 50 45 40 35 30 25 20 15 10 5

PPM

6.504

30.302

40.8
40.
39.
39.8
38.9
38.9
38.



pp.

62.

Hz

Integral

ppm 4.5 4.0 3.5 3.0 2.5 2.0 1.5

1407.113
1400.218
1361.923
1355.435
1350.319
1348.746
1343.745
1341.967
1340.159
1326.401

1024.461
1019.358
1009.751
1007.951
1006.154
1004.606
1003.011
1001.331
999.659
991.546

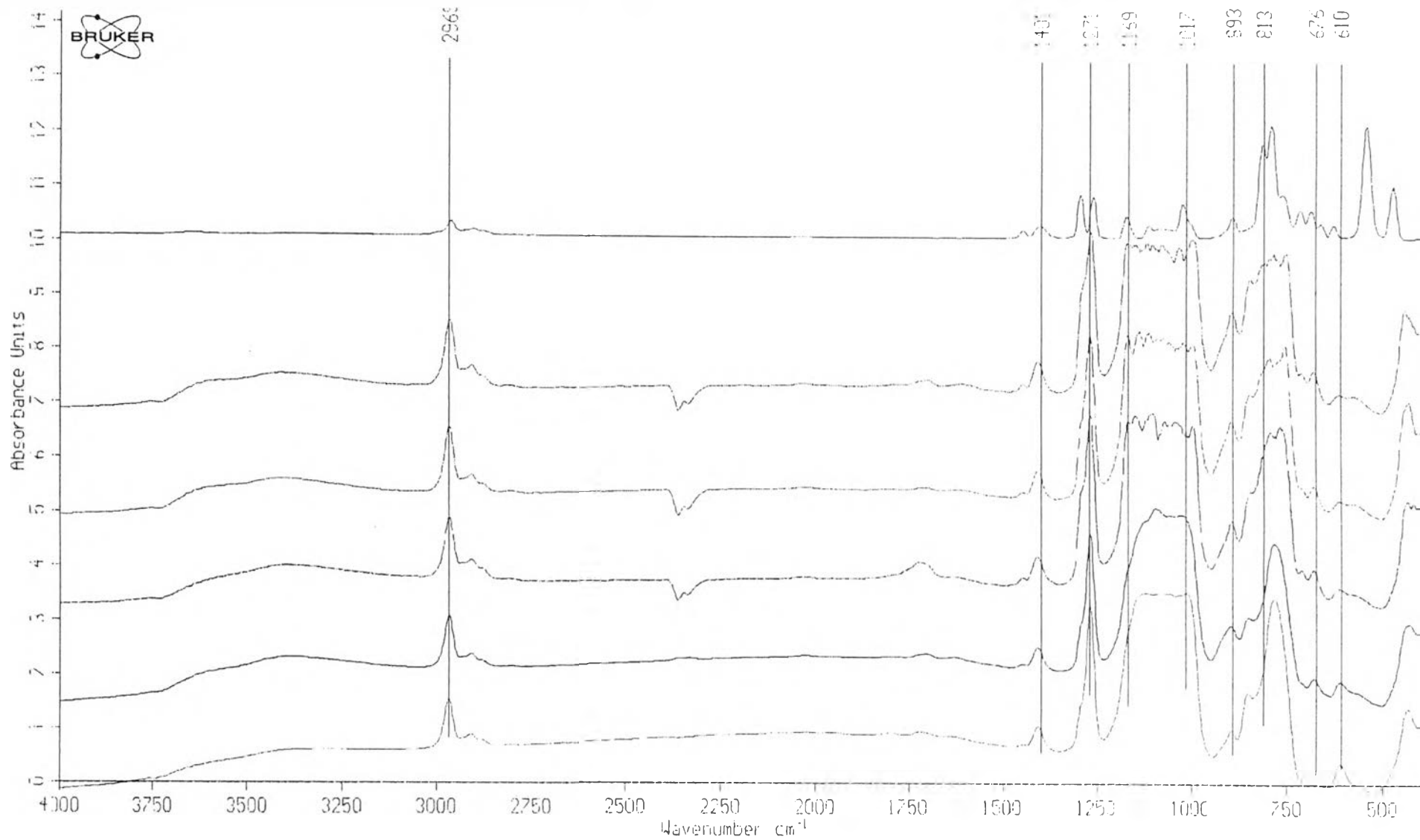
575.571
562.749
562.202
556.468
550.225
528.127
526.140
524.415
522.486
520.672
514.444
505.629

6.5743

1.0000

0.9494

0.4506

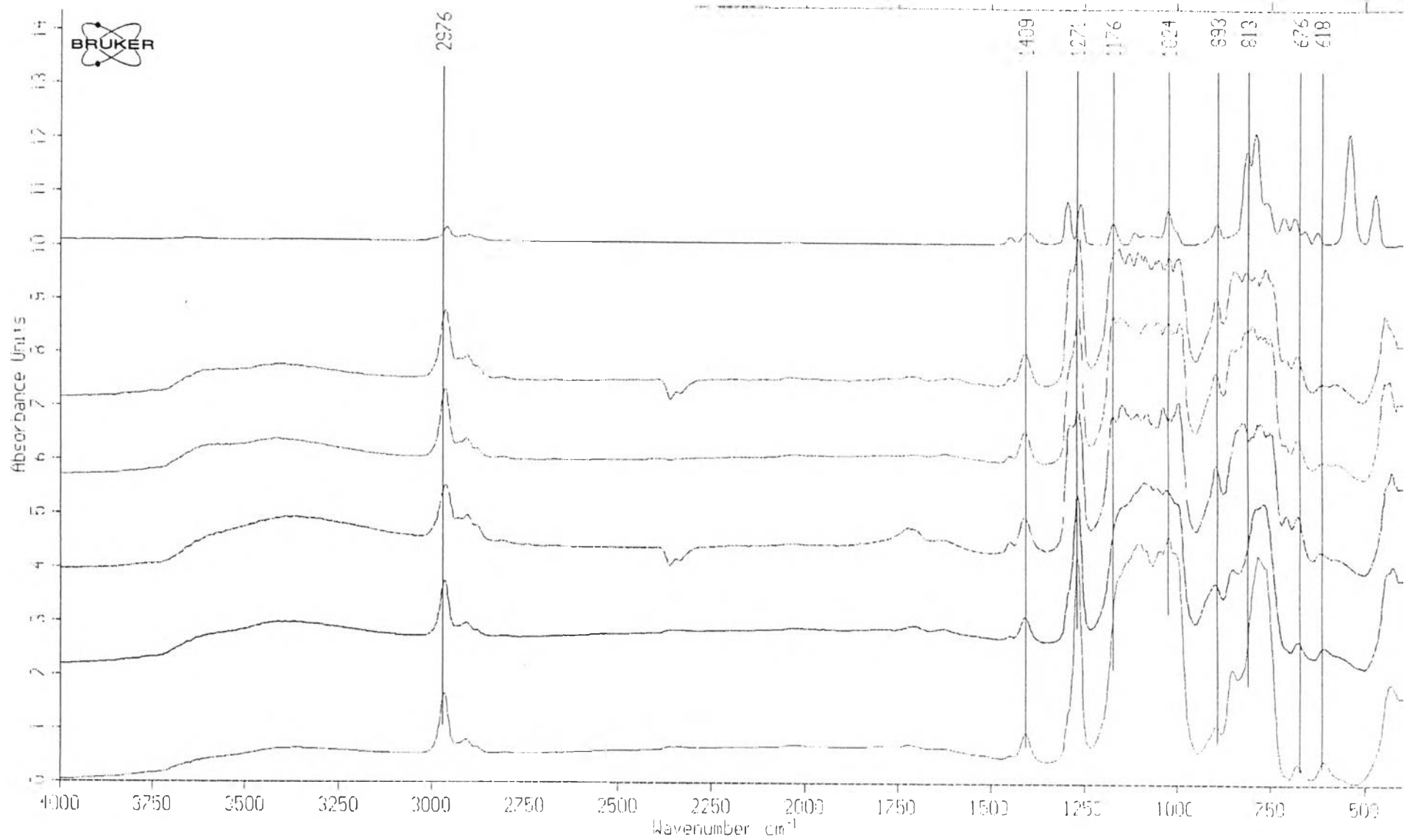


pure liquid 2-Cl silane KBr liquid cell
 crosslinked 2Cl+C6H14 on Siwafer, exposed 2hr big mask film
 crosslinked 2Cl+C6H14 on Siwafer, exposed 3hr big mask film
 crosslinked 2Cl+C6H14 on Siwafer, exposed 4hr big mask film
 crosslinked 2Cl+C6H14 on Siwafer 5hr big mask KBr
 crosslinked 2Cl+C6H14 on Siwafer 6hr big mask KBr

NOH
 NOH
 NOH
 NOH
 NOH
 NOH

WORK_23
 WORK_24
 WORK_26
 WORK_28
 WORK_30
 WORK_32

30/ 8/1999 14:16:12
 27/ 8/1999 11:46:47
 27/ 8/1999 12: 7: 6
 27/ 8/1999 14:41:43
 30/ 8/1999 16:48:11
 30/ 8/1999 16:36: 0



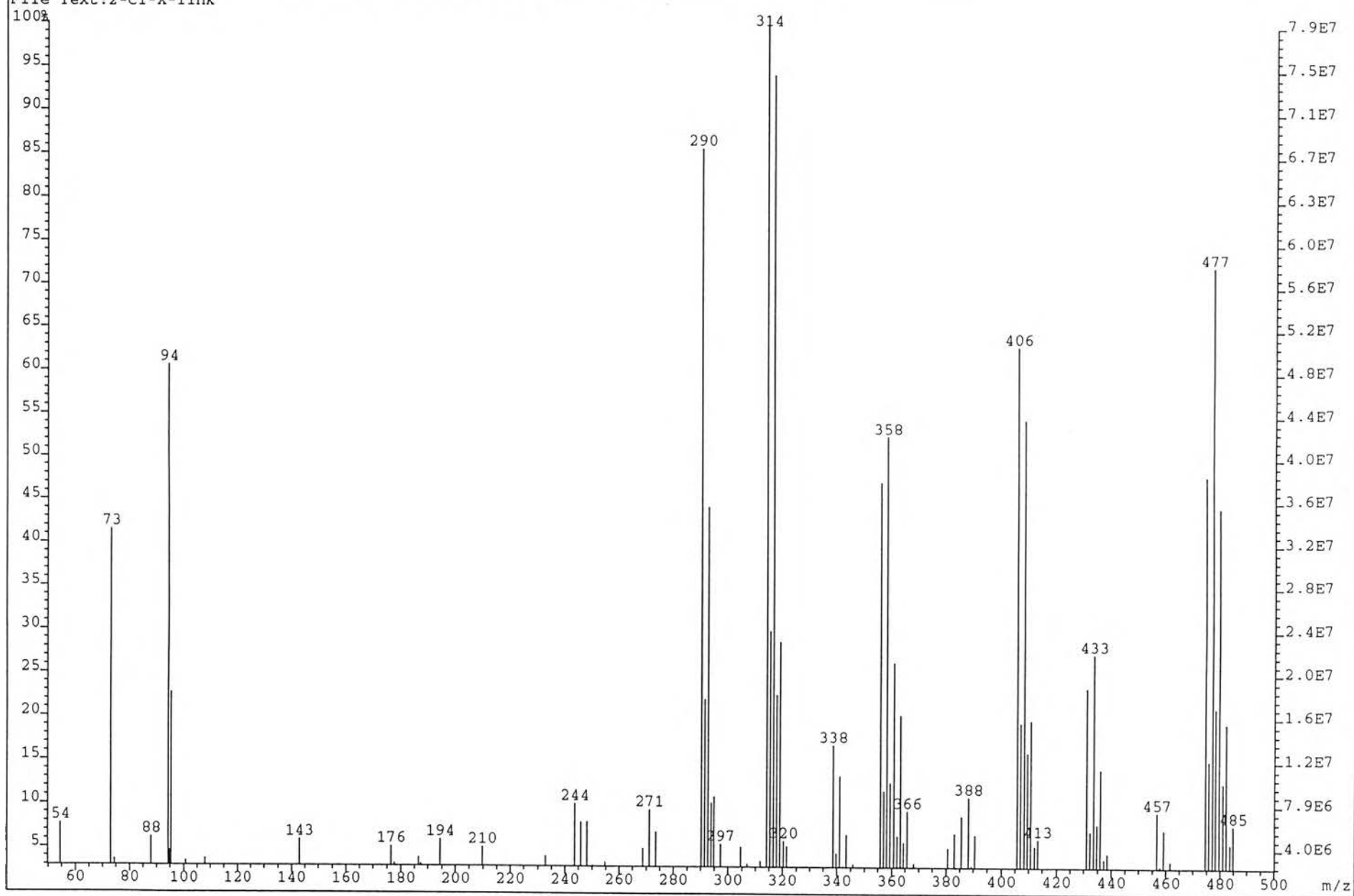
pure liquid 2-Cl silane KBr liquid cell
 uncrosslinked 2CL+C6H14 on Siwafer, exposed 2hr big mask film
 uncrosslinked 2CL+C6H14 on Siwafer, exposed 3hr big mask film
 uncrosslinked 2CL+C6H14 on Siwafer, exposed 4hr big mask film
 uncrosslinked 2CL+C6H14 on Siwafer 5hr big mask KBr
 uncrosslinked 2CL+C6H14 on Siwafer 6hr big mask KBr

NOH
 NOH
 NOH
 NOH
 NOH
 NOH

WORK. 23
 WORK. 25
 WORK. 27
 WORK. 29
 WORK. 31
 WORK. 32

30/ 8/1999 14:16:12
 27/ 8/1999 10:20:1
 27/ 8/1999 10:26:52
 27/ 8/1999 14:39:7
 30/ 8/1999 17: 8: 0
 30/ 8/1999 16:28: 9

File:NOH Ident:1_15 Win 2000PPM Acq: 3-NOV-1999 10:38:16 +1:33 Cal:PFK_1
Autospec-Ultima EI+ Magnet BpM:314 BpI:79368464 TIC:1578246144 Flags:HALL
File Text:2-Cl-X-link



CURRICULUM VITAE

Name : Mr. Pompongse Sowawattanakul

Birth Date : February 1, 1977

Nationality : Thai

University Education :

1994-1997 Bachelor Degree of Science in Industrial Chemistry
Department, Faculty of Science, King Mongkut
Institute of Technology Lardkrabang.