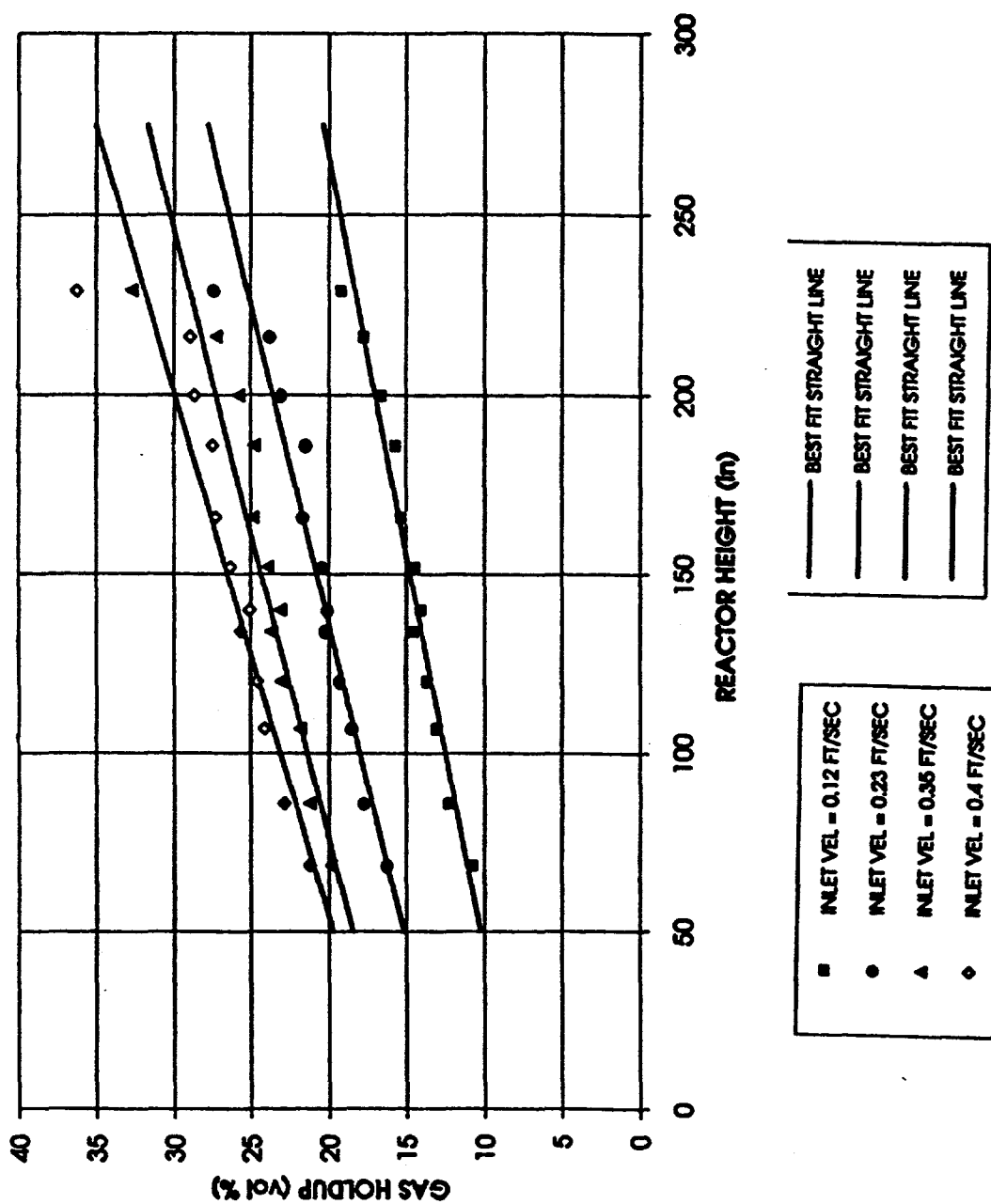
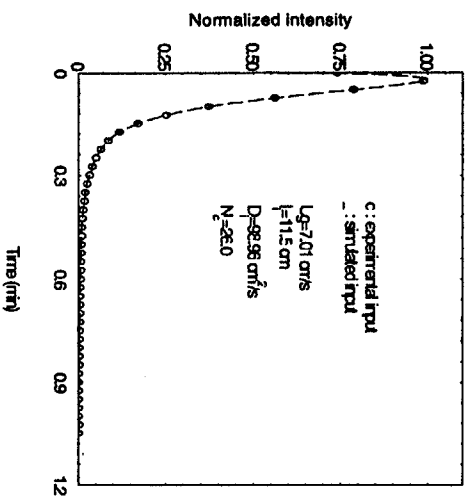


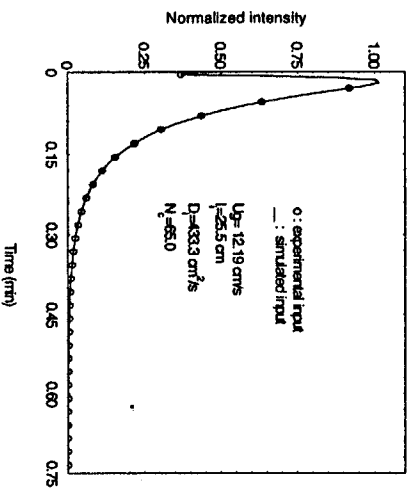
Appendix I : Gas Holdup Measurements



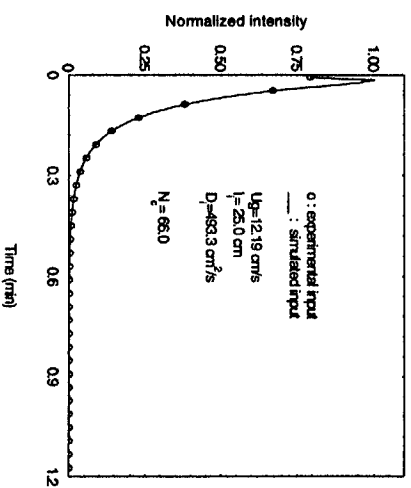
Appendix II: Gas Phase Injection Pulse Simulation



Run No. : R82-1

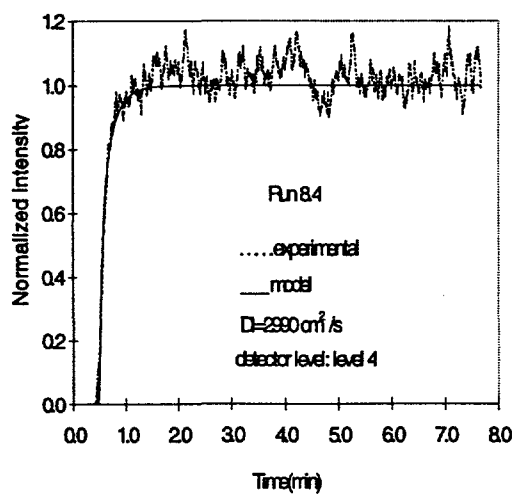


Run No. : R86-1

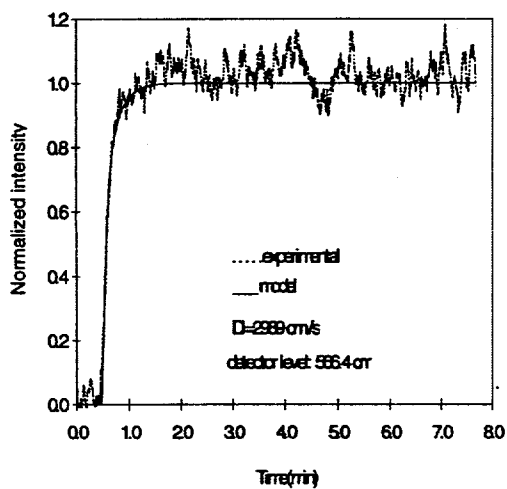


Run No. : R86-2

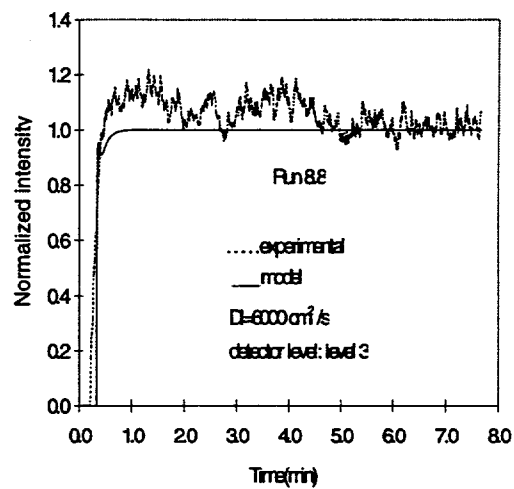
Appendix III: Plots of Model Fits of Experimental Responses for the Liquid Phase Tracer



Run No. R84

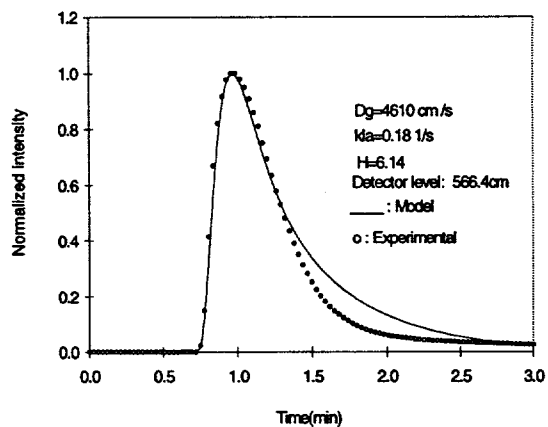
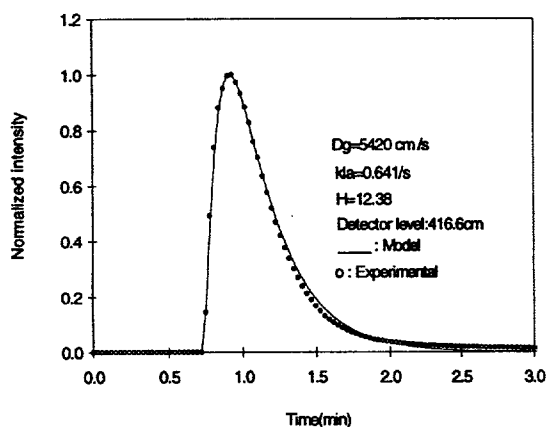
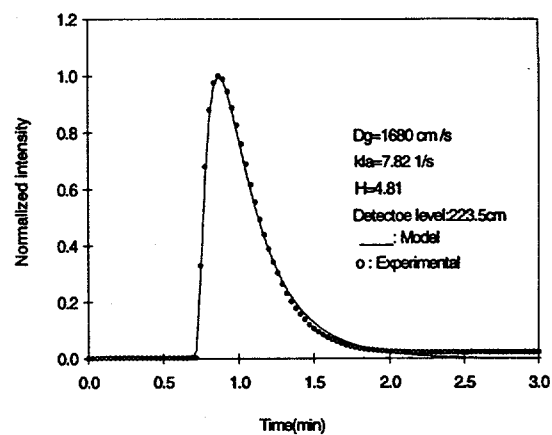
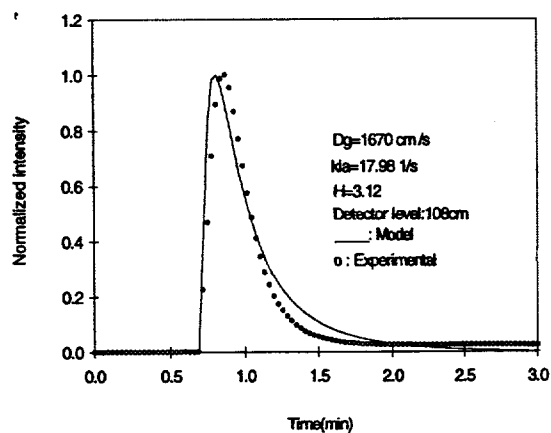


Run No. : R87

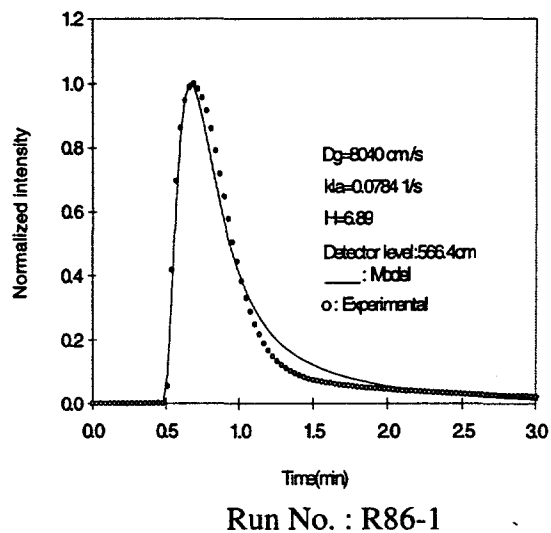
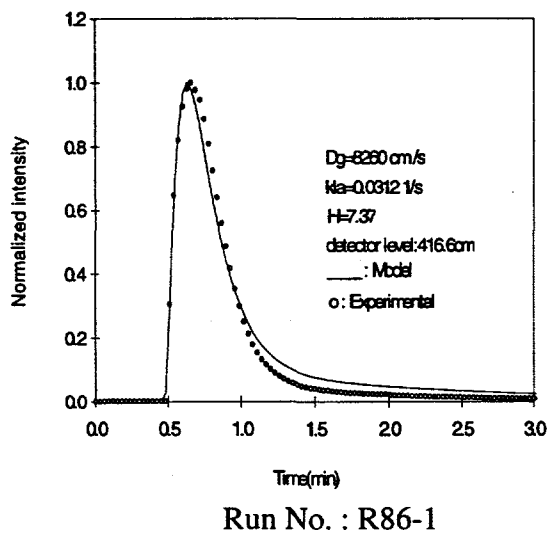
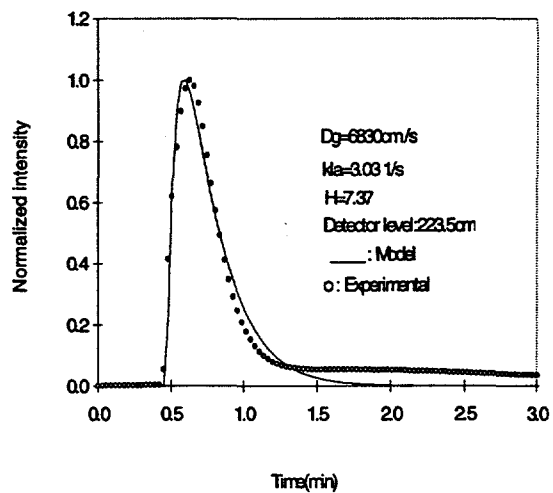
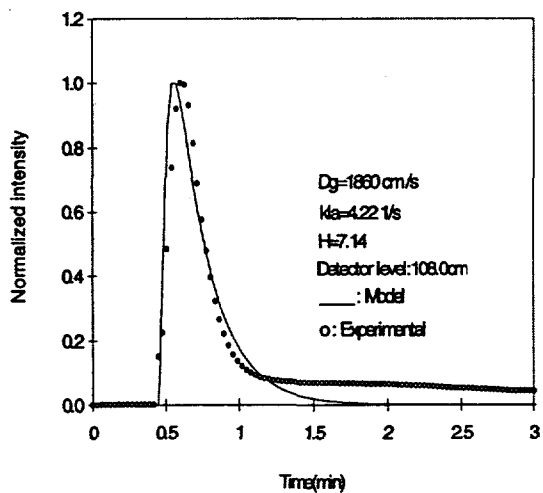


Run No. : R88

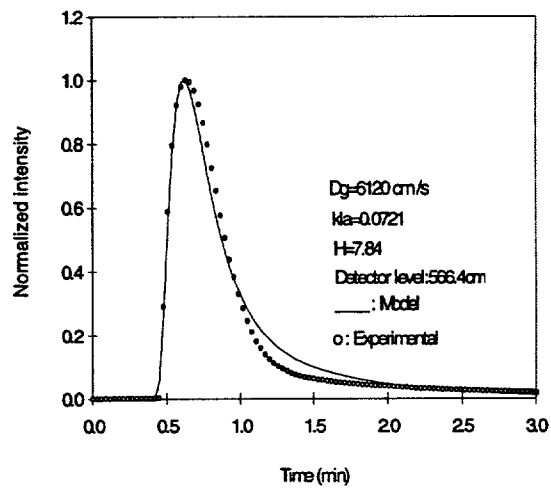
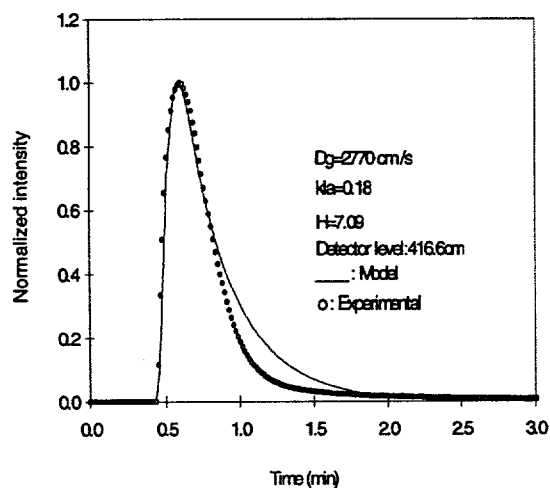
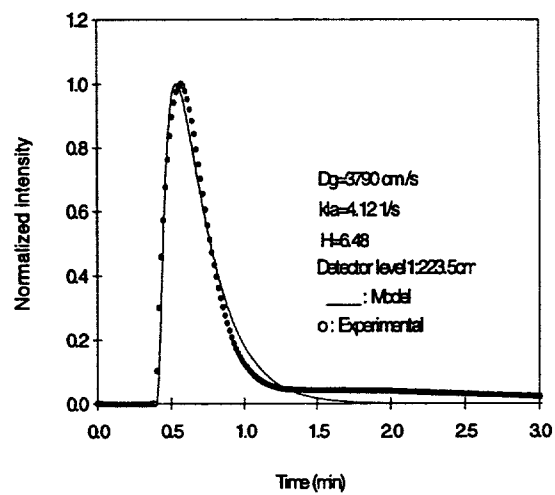
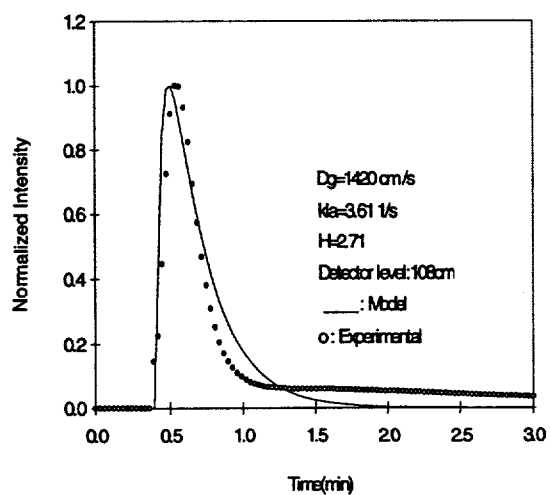
Appendix IV : Plots of Model Fits of Experimental Responses for the Gas Phase Tracer



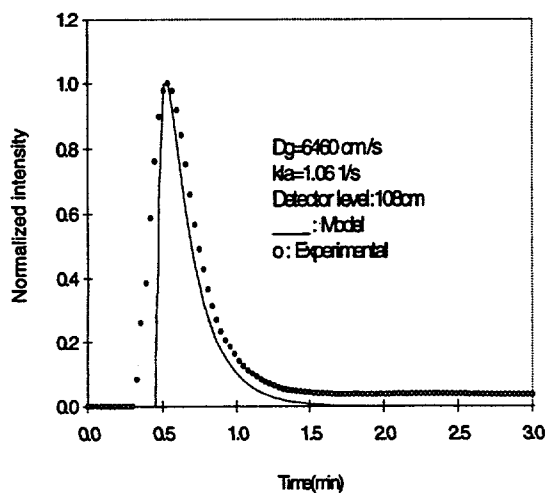
Case 1



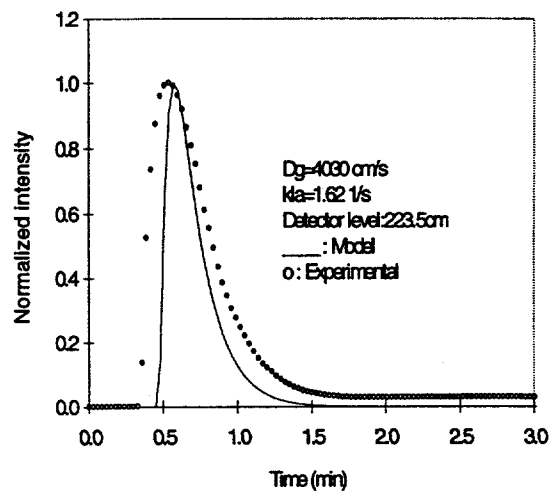
Case 1 (Continued)



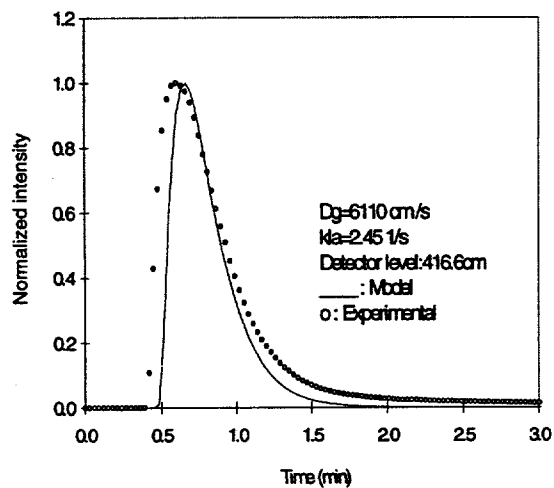
Case 1 (Continued)



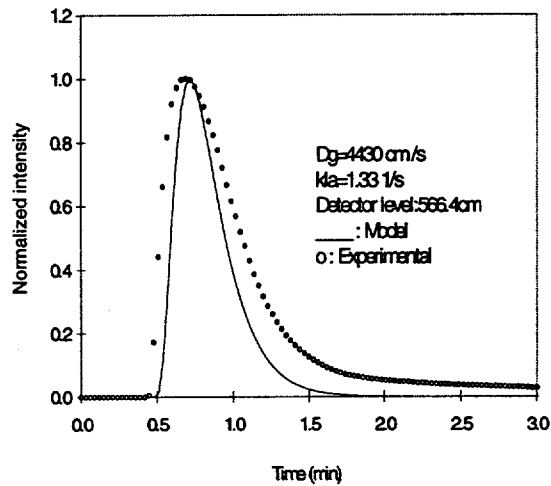
Run No. : R82-1



Run NO. : R82-1

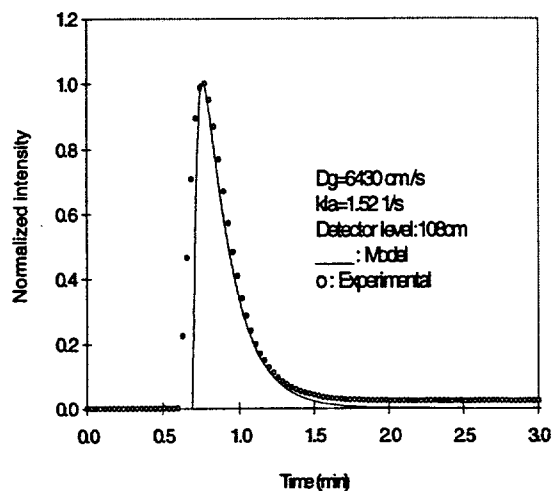


Run NO. : R82-1

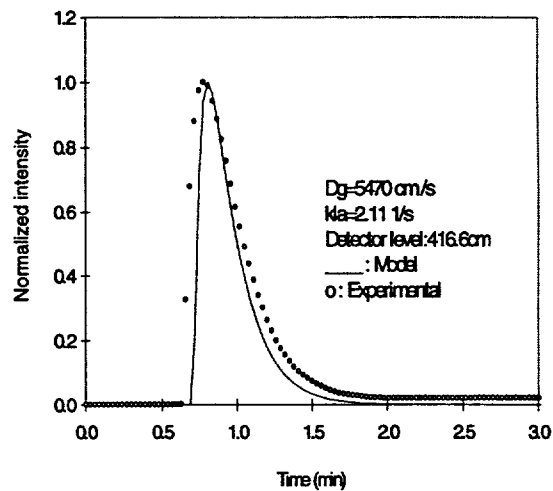


Run No. : R82-1

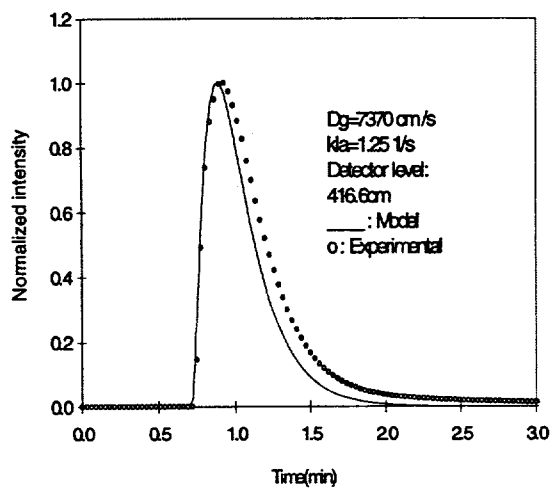
Case 2



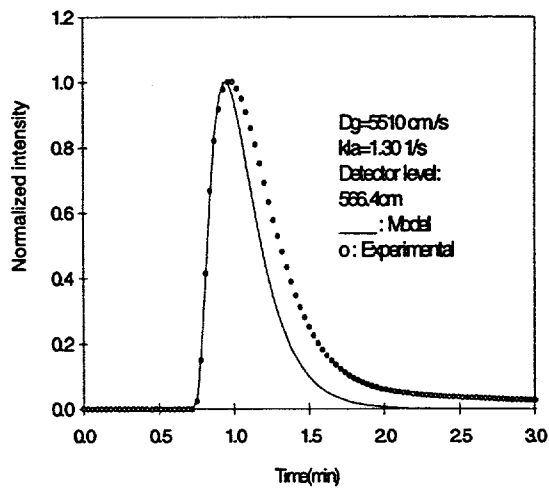
Run No. : R82-2



Run No. : R82-2

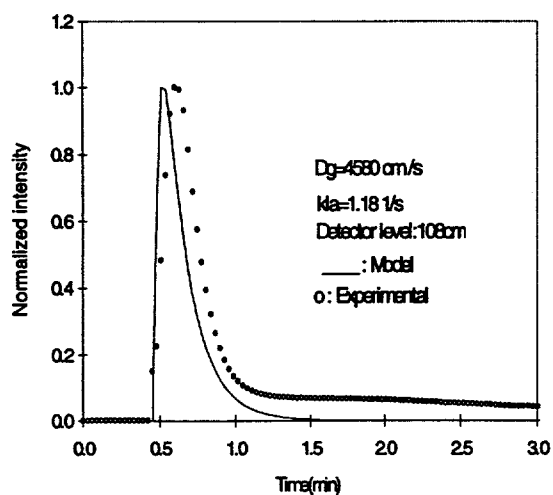


Run No. : R82-2

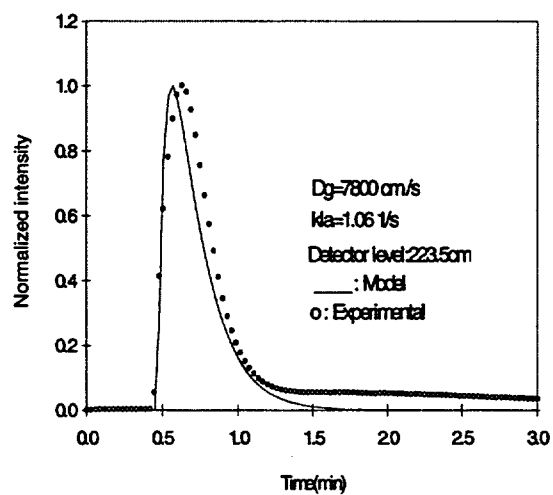


Run NO. : R82-2

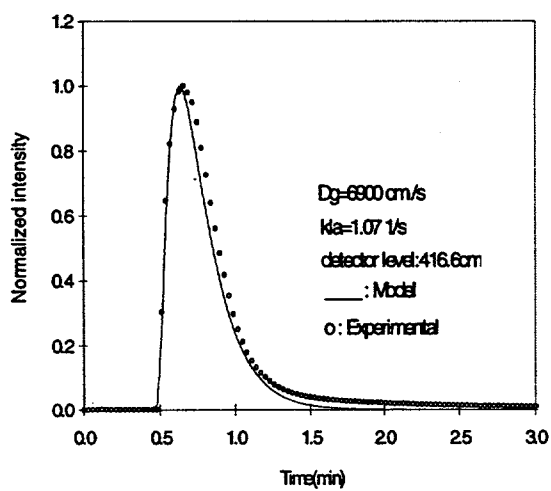
Case 2 (Continued)



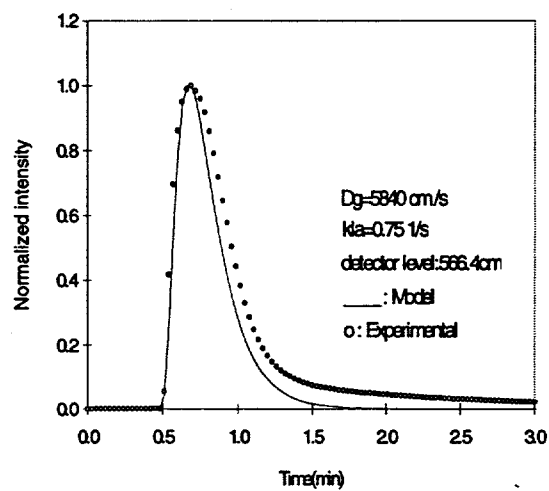
Run No. : R86-1



Run No. : R86-1

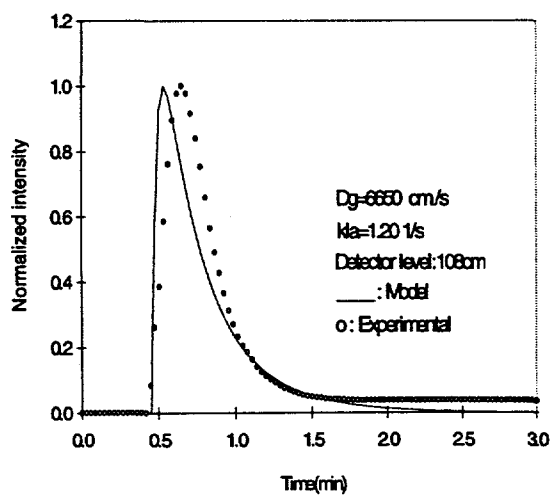


Run No. : R86-1

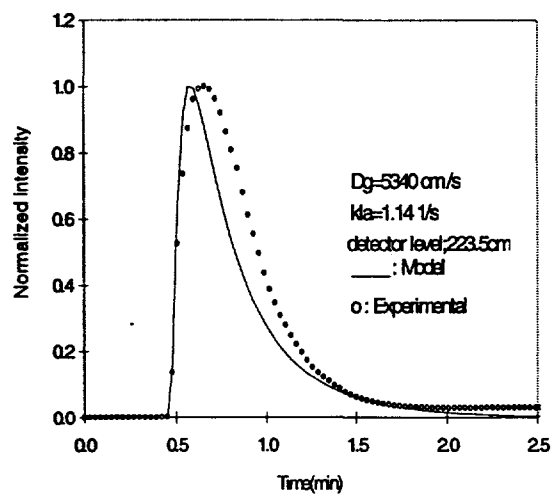


Run No. : R86-1

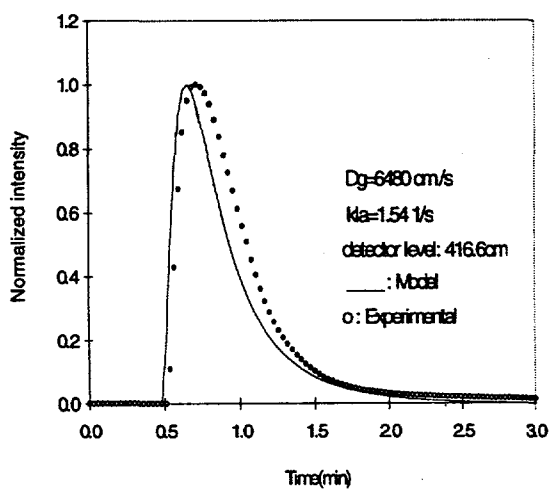
Case 2 (Continued)



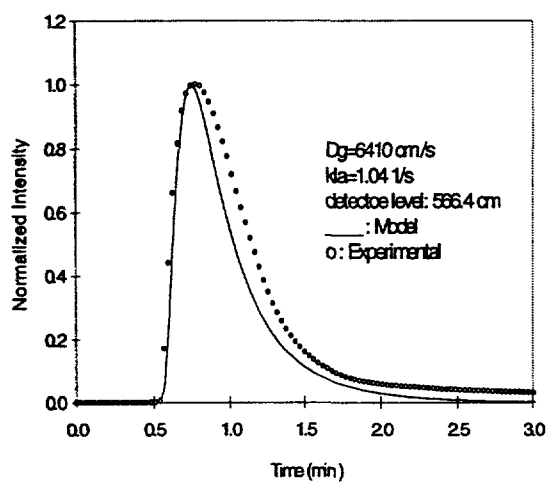
Run No. : R82-1



Run No. : R82-1

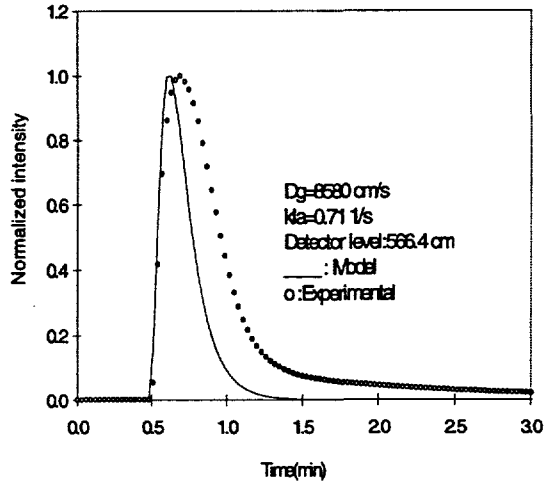
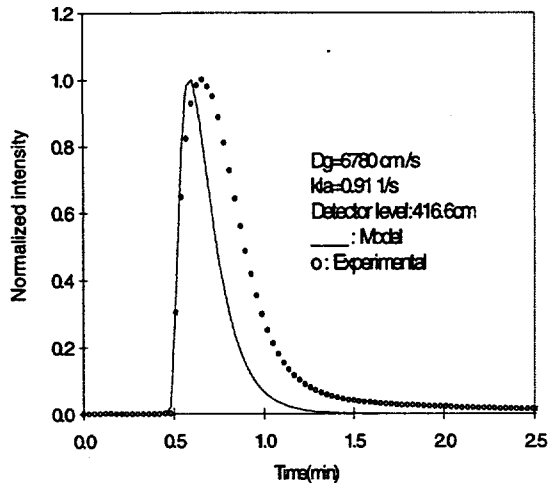
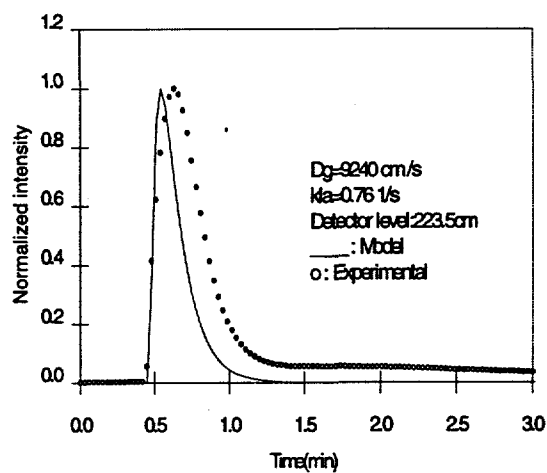
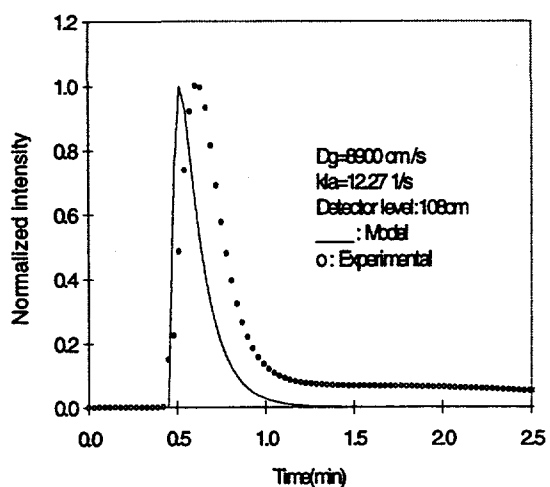


Run No. : R82-1

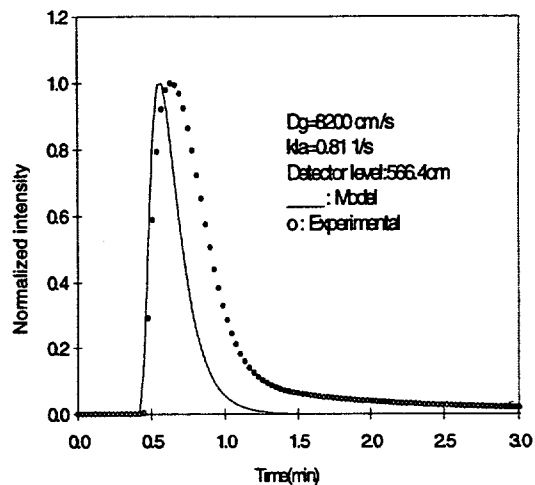
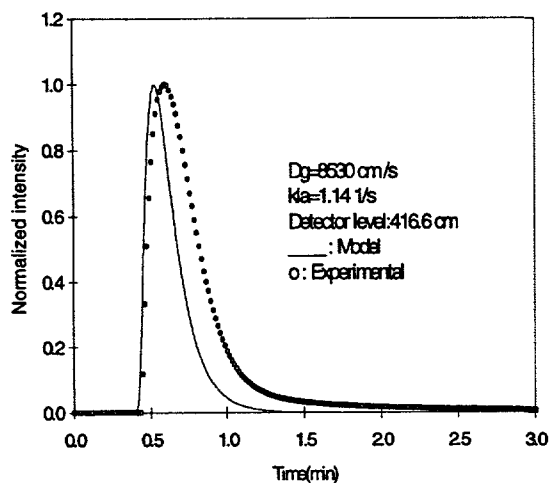
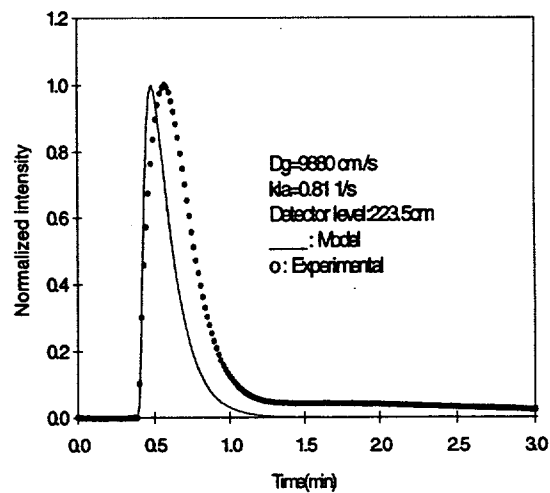
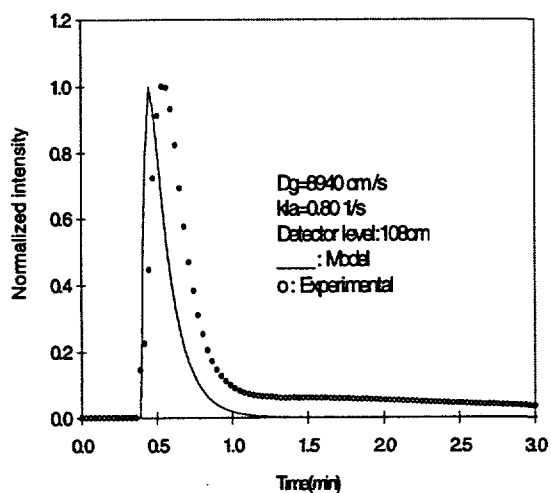


Run No. : R82-1

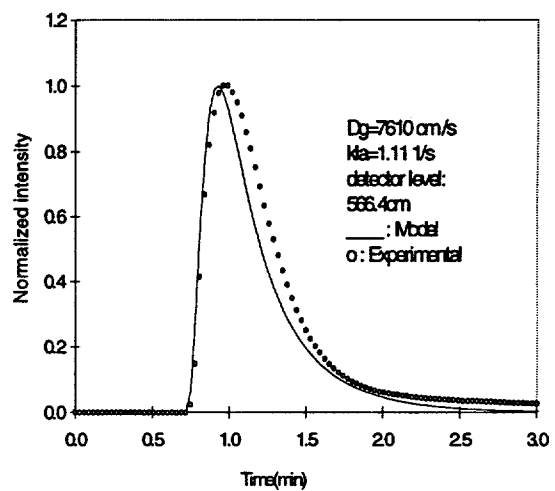
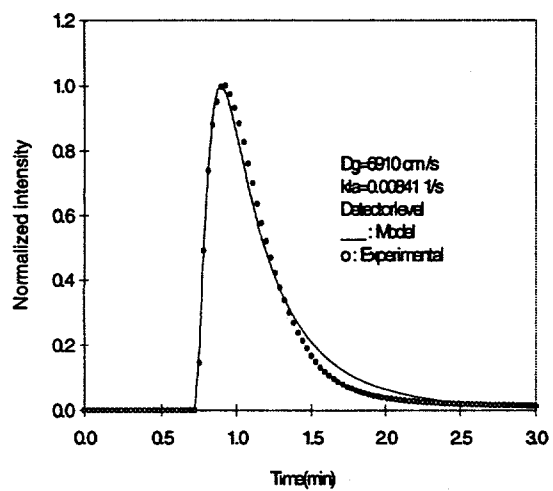
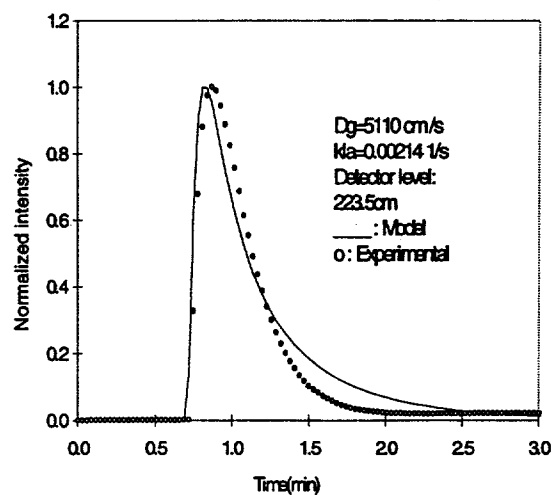
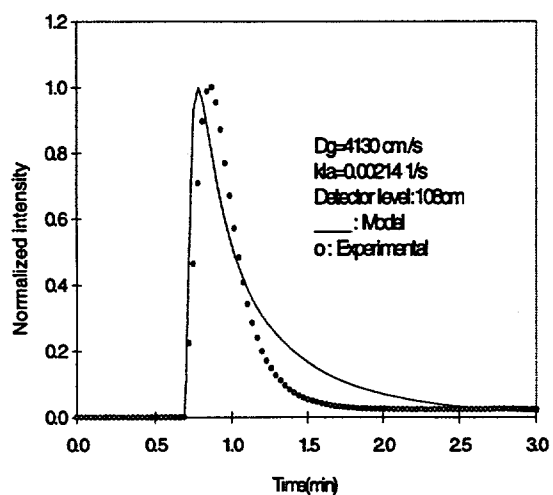
Case 3



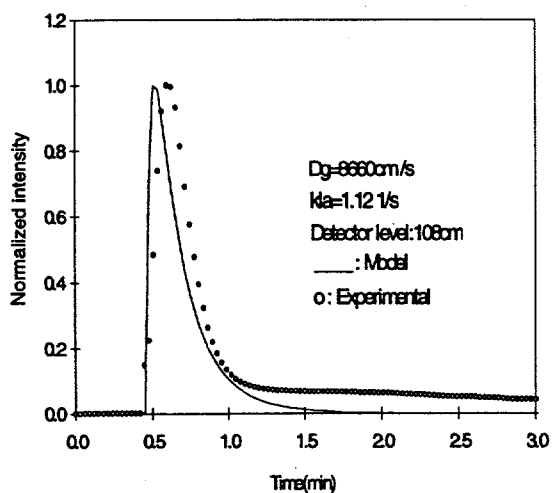
Case 3 (Continued)



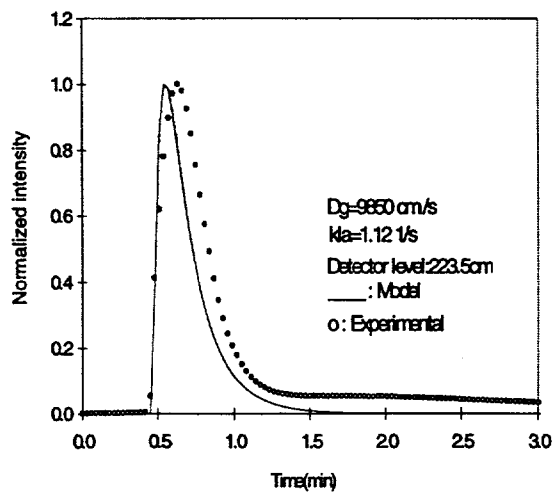
Case 3 (Continued)



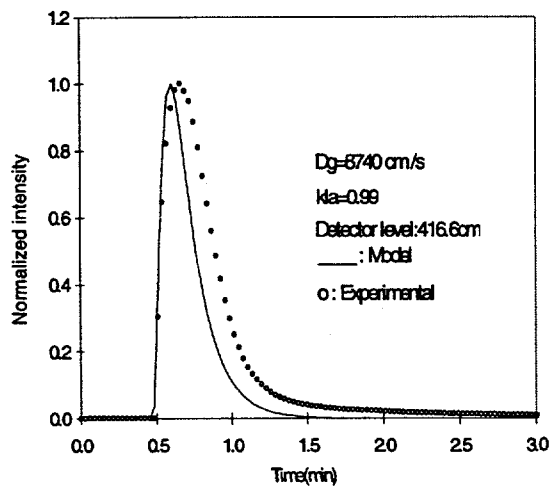
Case 4



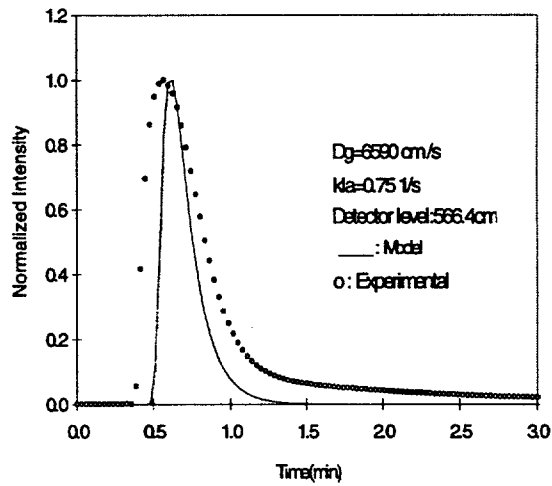
Run NO. : R86-1



Run NO. : R86-1

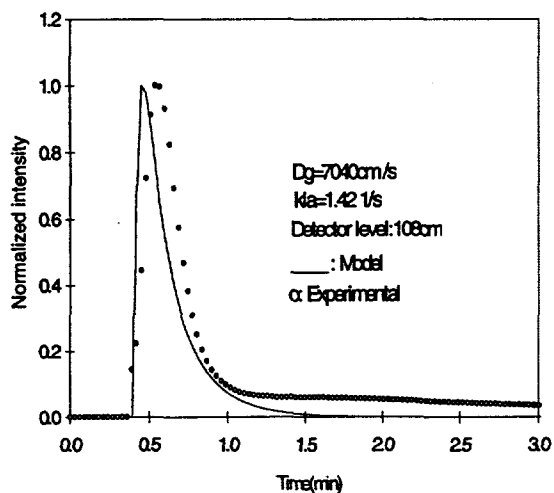


Run No. : R86-1

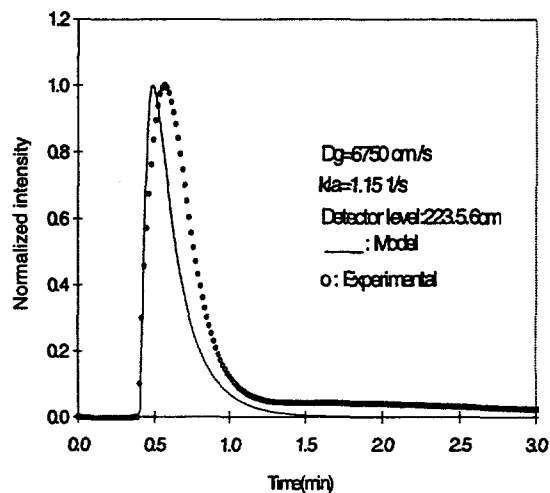


Run No. : R86-1

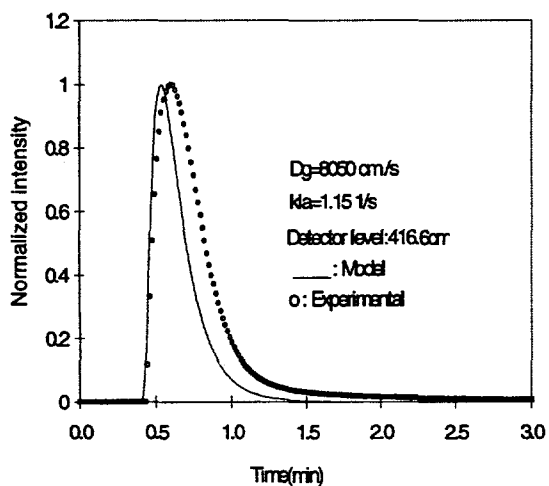
Case 4 (Continued)



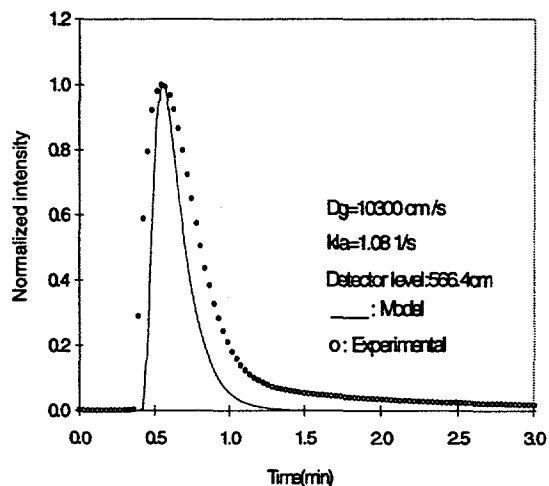
Run No. : R86-2



Run No. : R86-2

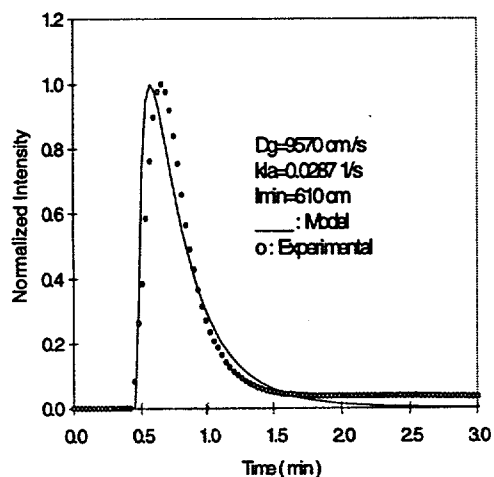


Run No. : R86-2

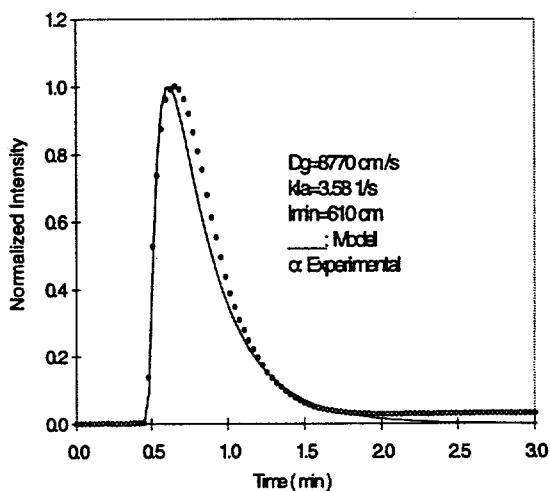


Run No. : R86-2

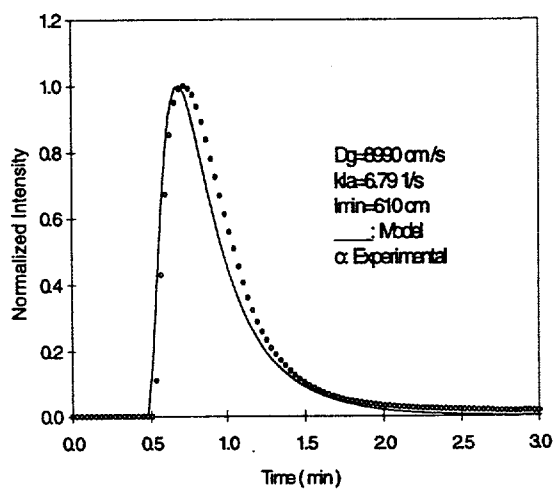
Case 4 (Continued)



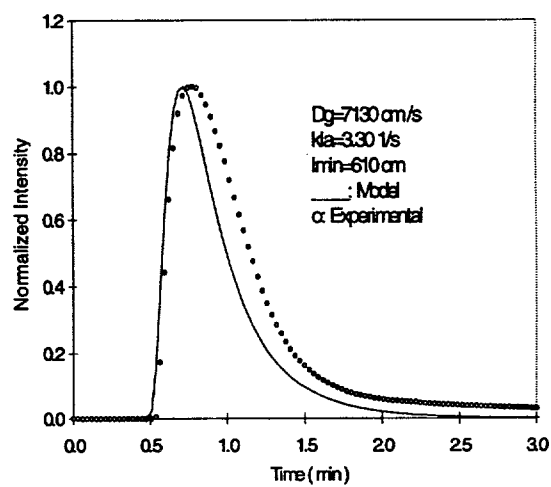
Run No. : R82-1



Run No. : R86-1

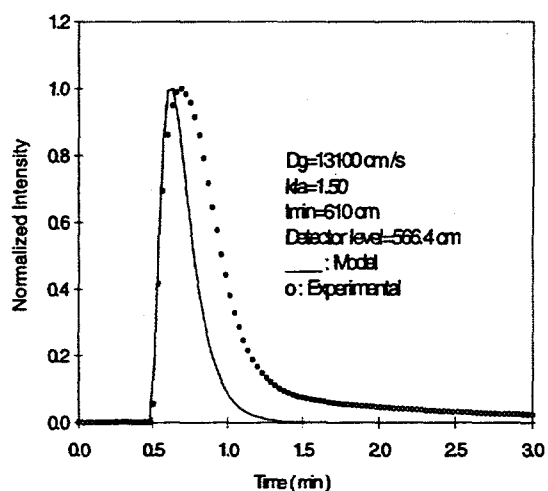
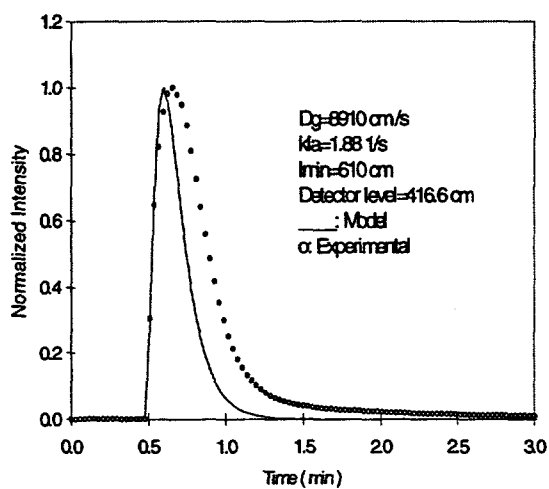
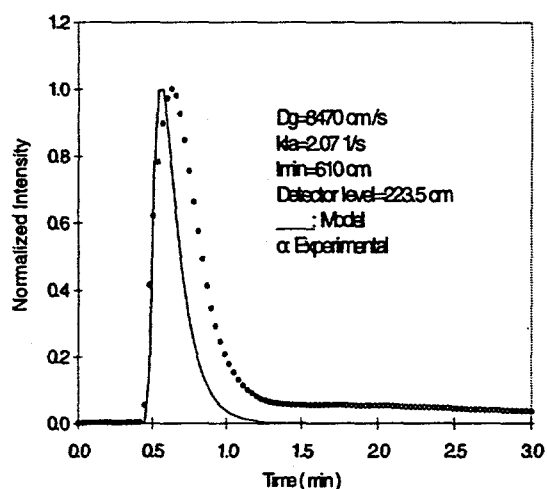
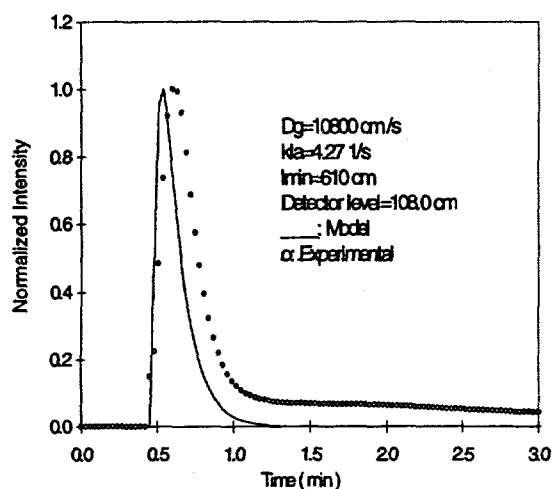


Run No. : R86-1

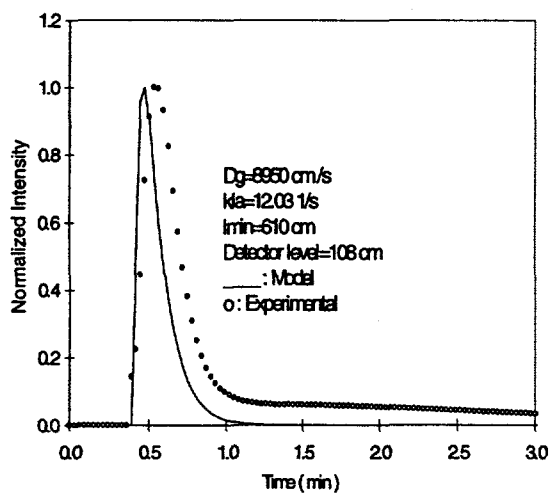


Run No. : R86-1

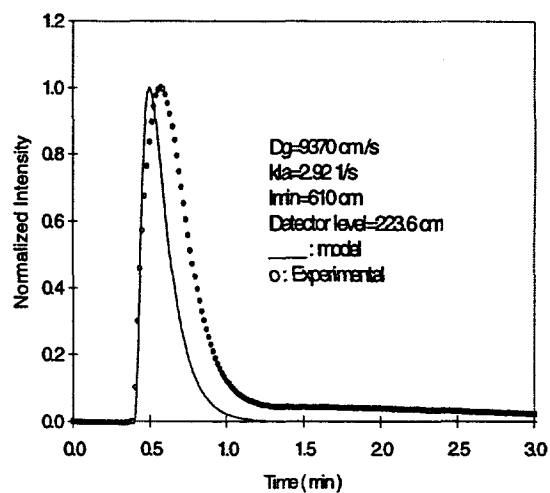
Case 5



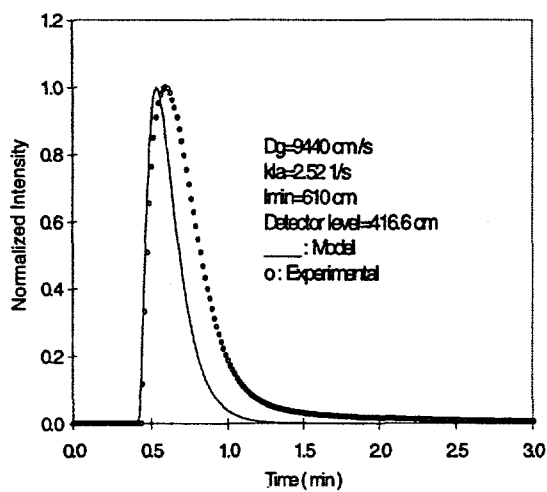
Case 5 (Continued)



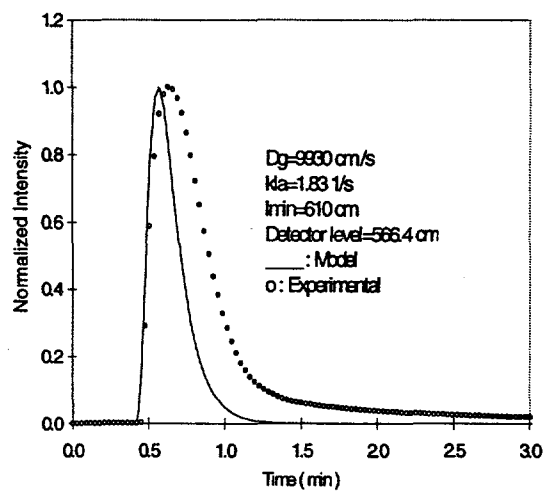
Run No. R86-2



Run No. : R86-2



Run No. : R86-2



Run No. : R86-2

Case 5 (Continued)