

Electronic Supplementary Information

Interaction of L-alanyl-L-valine and L-valyl-L-alanine with organic vapors: thermal stability of clathrates, sorption capacity and change of morphology of dipeptide films

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QCM data for successive sensor experiments; TG/DSC/MS data for the studied dipeptides and products of their saturation with guest vapors; AFM images of the surface of thin film of dipeptide saturated with vapors.

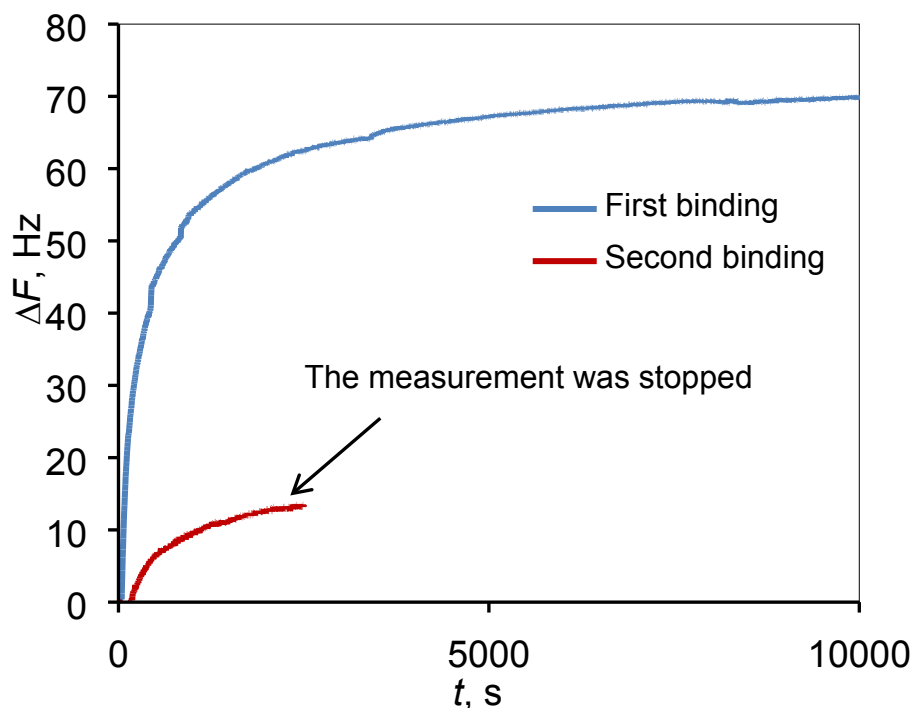


Figure 1S – The successive responses of QCM sensor coated with dipeptide **AV** to vapor of carbon tetrachloride. Before the second binding sensors were dried for 2 min by hot air (45°C).

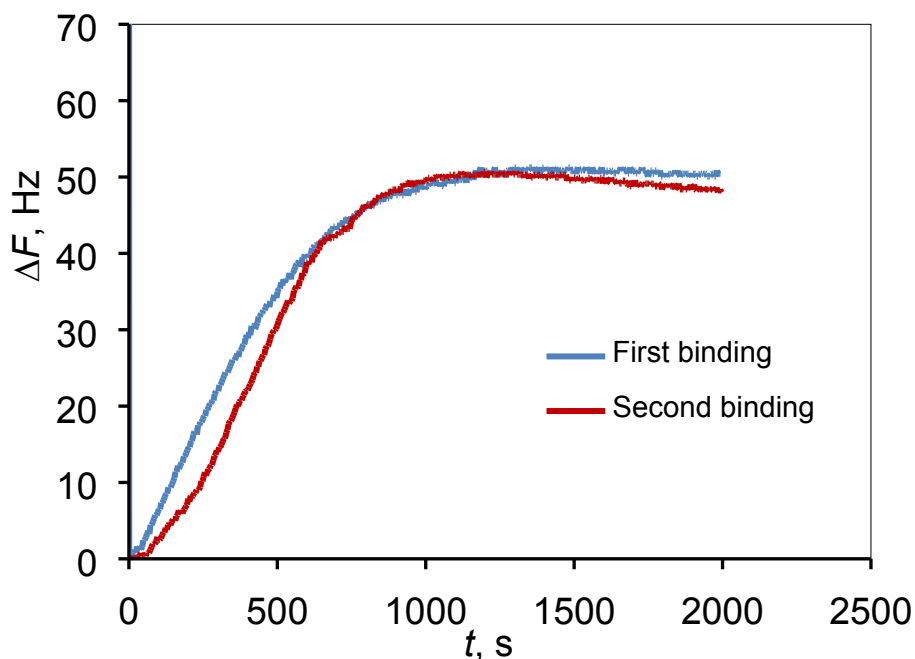


Figure 2S – The successive responses of QCM sensor coated with dipeptide **AV** to vapor of water. Before the second binding sensors were dried for 2 min by hot air (45°C).

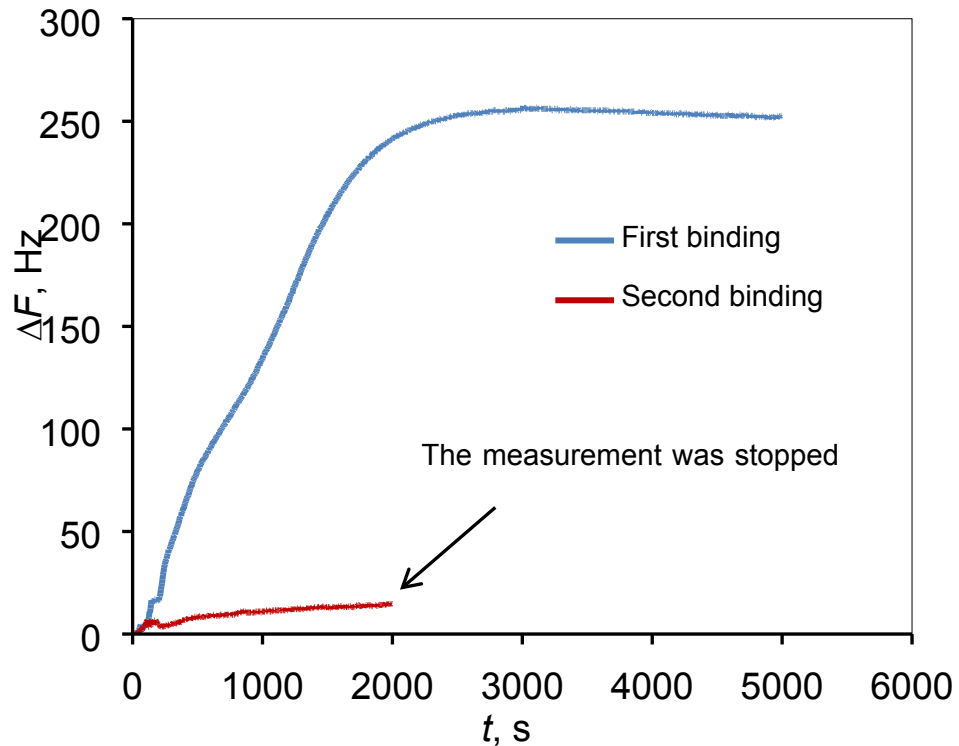


Figure 3S – The successive responses of QCM sensor coated with dipeptide **VA** to vapor of pyridine. Before the second binding sensors were dried for 2 min by hot air (45°C).

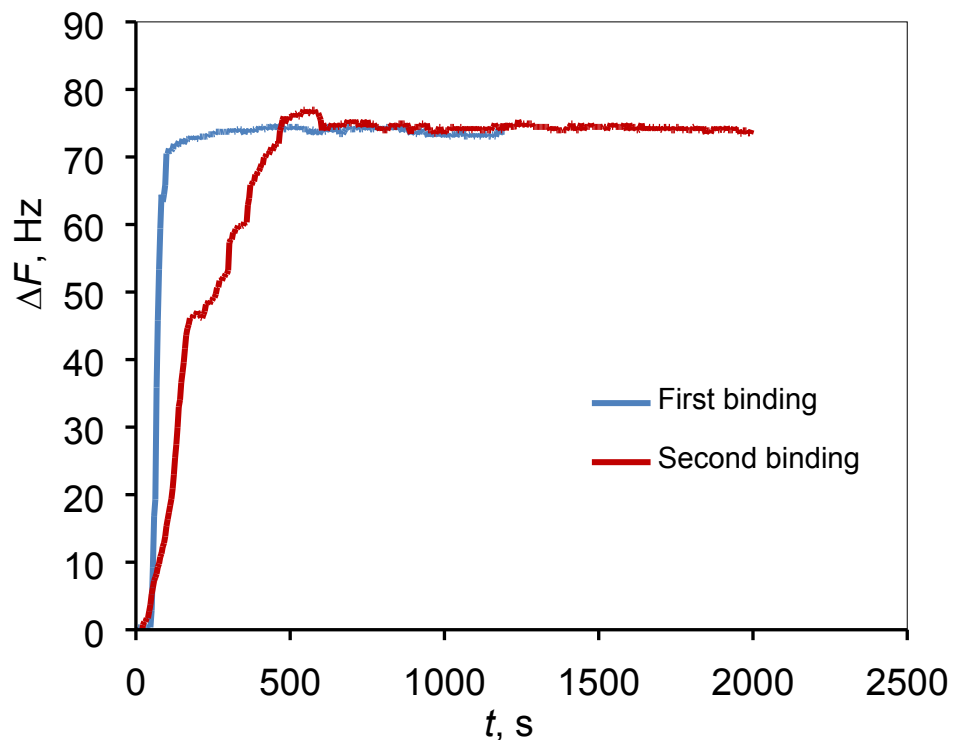


Figure 4S – The successive responses of QCM sensor coated with dipeptide **VA** to vapor of ethanol. Before the second binding sensors were dried for 2 min by hot air (45°C).

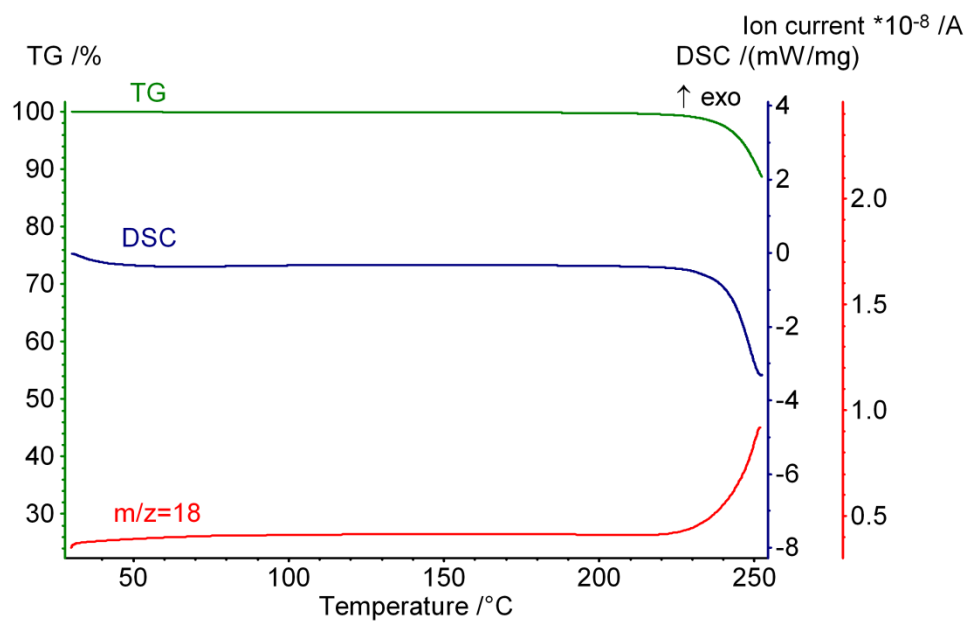


Figure 5S – The data of TG/DSC/MS analysis for dipeptide AV.

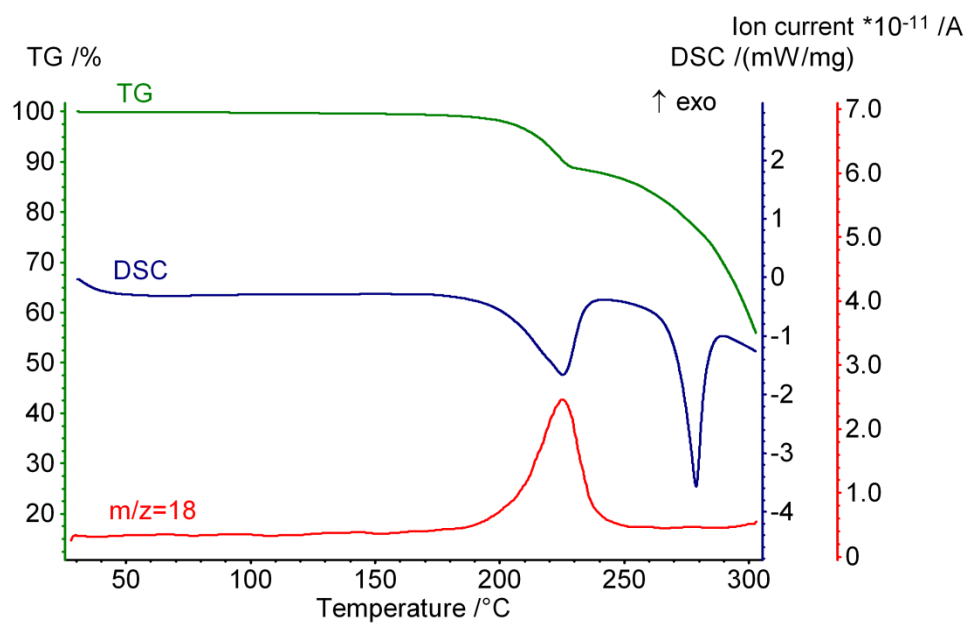


Figure 6S – The data of TG/DSC/MS analysis for dipeptide VA.

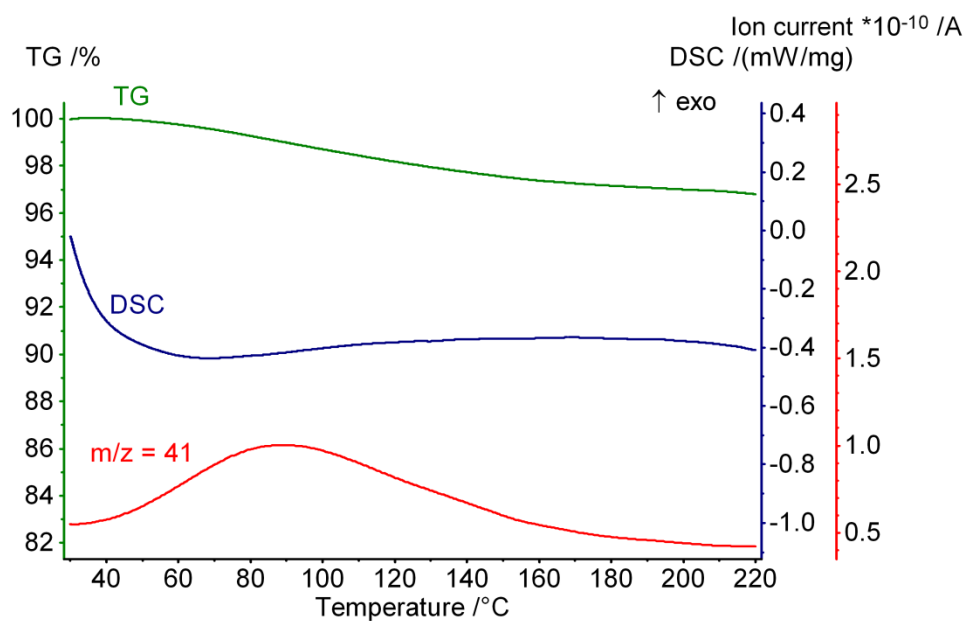


Figure 7S – The data of TG/DSC/MS analysis for product of AV saturation with vapor of acetonitrile. Ion thermogram of CH₃CN (m/z=41) is shown. Heating rate is 10 K/min.

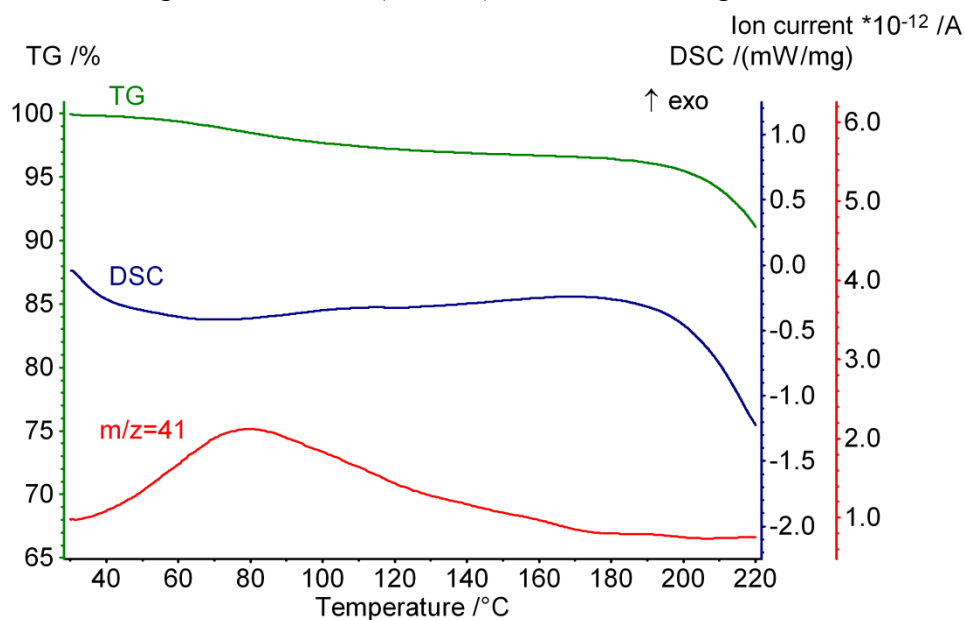


Figure 8S. The data of TG/DSC/MS analysis for product of VA saturation with vapor of acetonitrile. Ion thermogram of CH₃CN (m/z=41) is shown. Heating rate is 10 K/min.

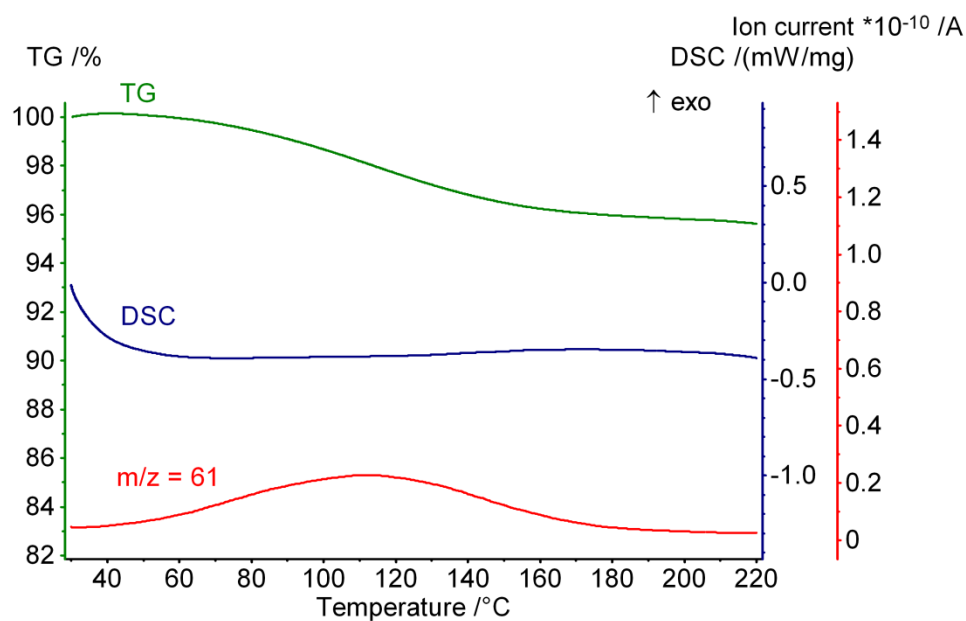


Figure 9S – The data of TG/DSC/MS analysis for product of AV saturation with vapor of nitromethane. Ion thermogram of CH_3NO_2 ($m/z=61$) is shown. Heating rate is 10 K/min.

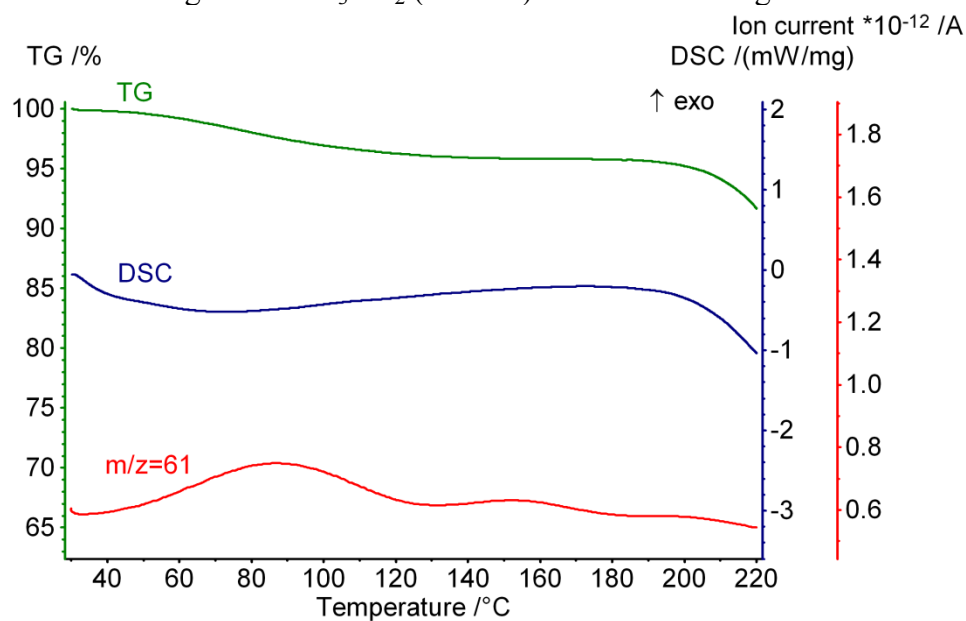


Figure 10S – The data of TG/DSC/MS analysis for product of VA saturation with vapor of nitromethane. Ion thermogram of CH_3NO_2 ($m/z=61$) is shown. Heating rate is 10 K/min.

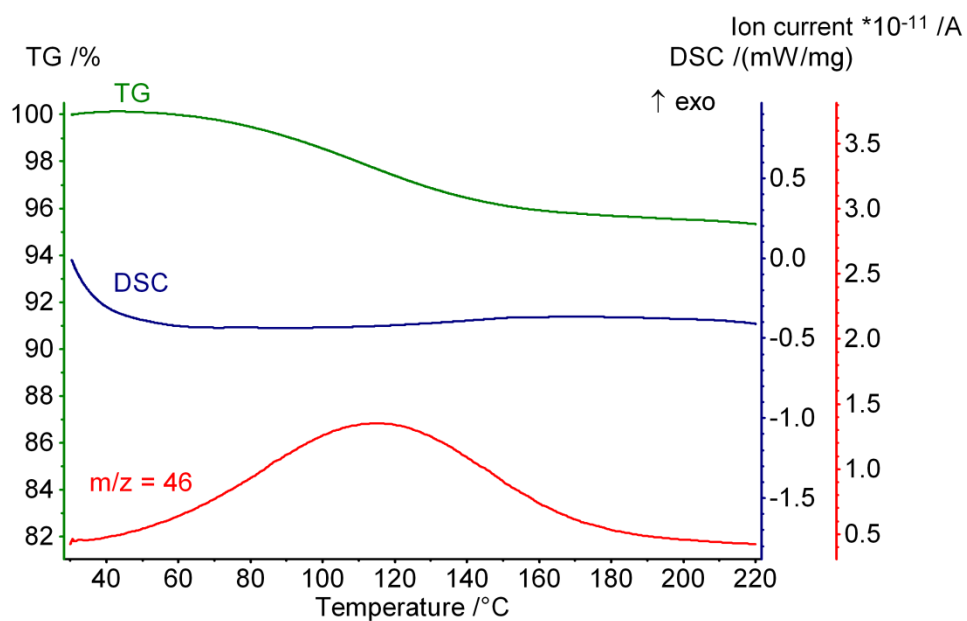


Figure 11S – The data of TG/DSC/MS analysis for product of AV saturation with vapor of ethanol. Ion thermogram of C₂H₅OH (m/z=46) is shown. Heating rate is 10 K/min.

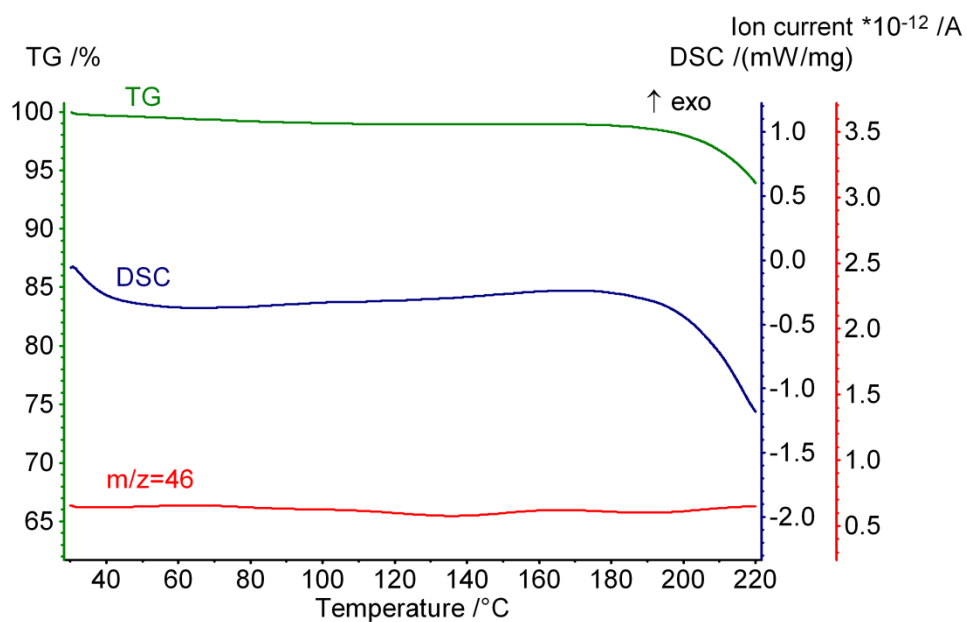


Figure 12S – The data of TG/DSC/MS analysis for product of VA saturation with vapor of ethanol. Ion thermogram of C₂H₅OH (m/z=46) is shown. Heating rate is 10 K/min.

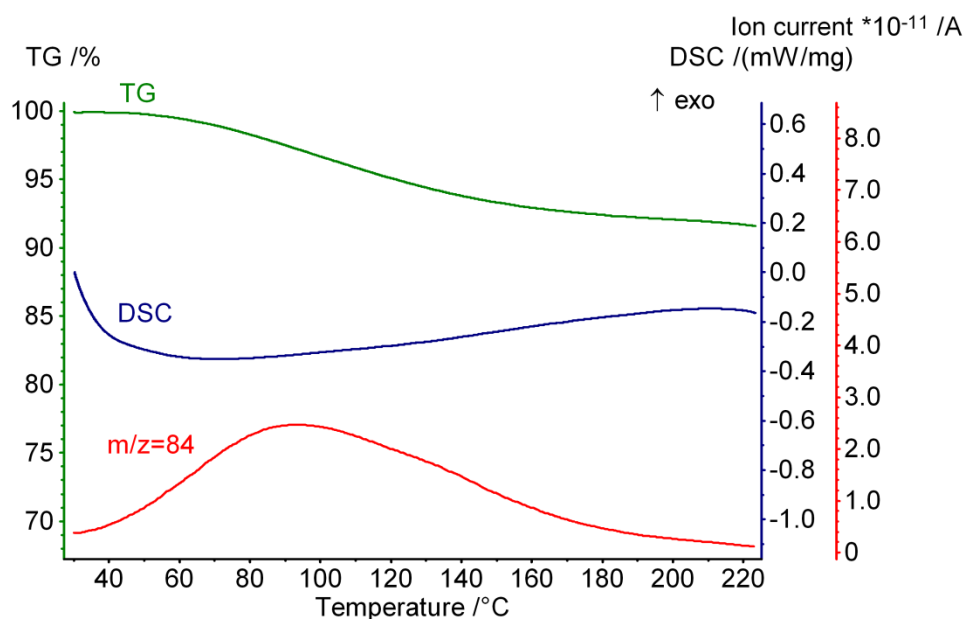


Figure 13S – The data of TG/DSC/MS analysis for product of AV saturation with vapor of methylene chloride. Ion thermogram of CH₂Cl₂ (m/z=84) is shown. Heating rate is 10 K/min.

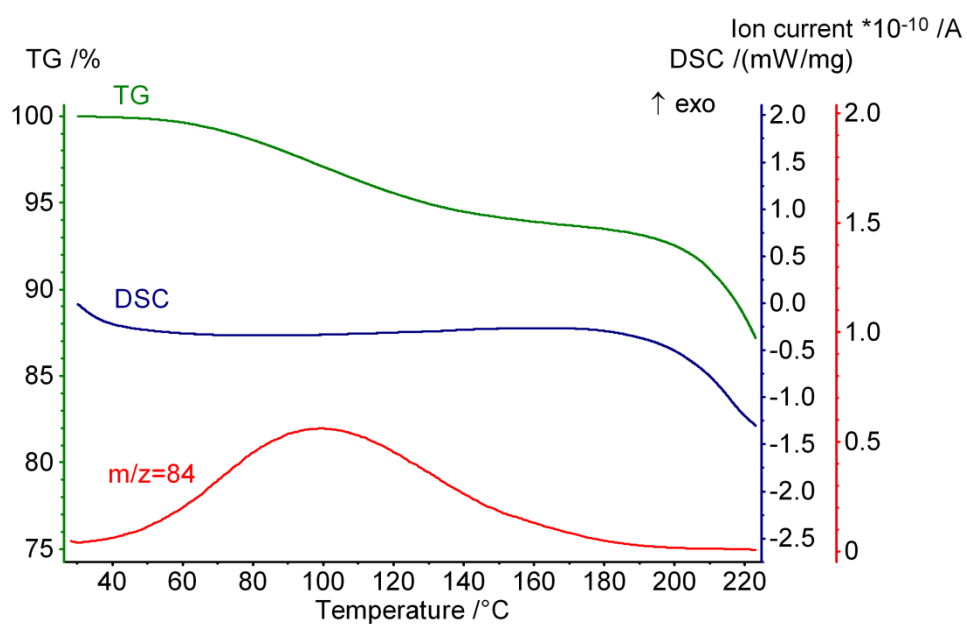


Figure 14S – The data of TG/DSC/MS analysis for product of VA saturation with vapor of methylene chloride. Ion thermogram of CH₂Cl₂ (m/z=84) is shown. Heating rate is 10 K/min.

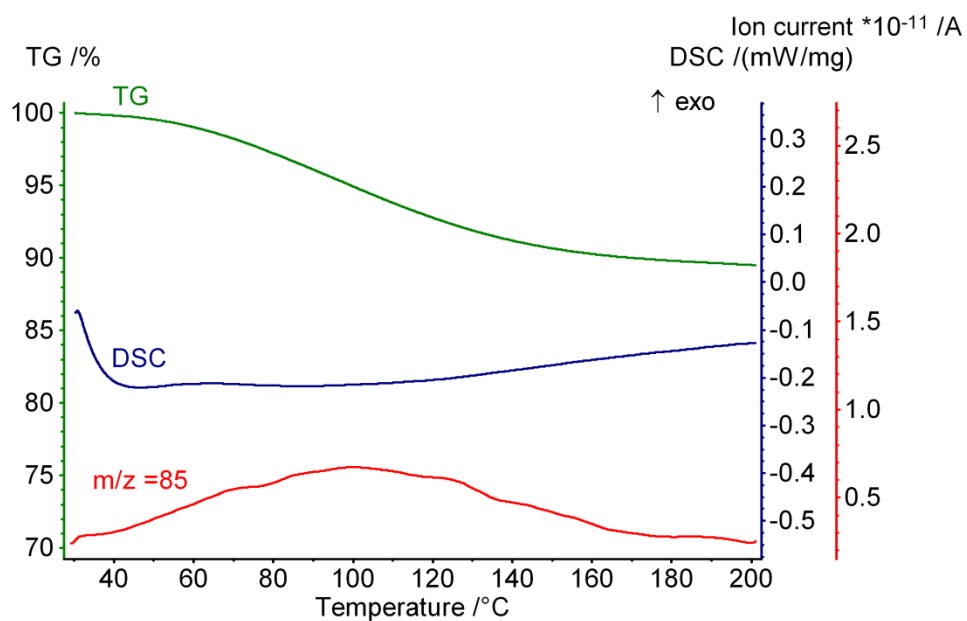


Figure 15S – The data of TG/DSC/MS analysis for product of VA saturation with vapor of chloroform. Ion thermogram of CHCl₃ (m/z=85) is shown. Heating rate is 10 K/min.

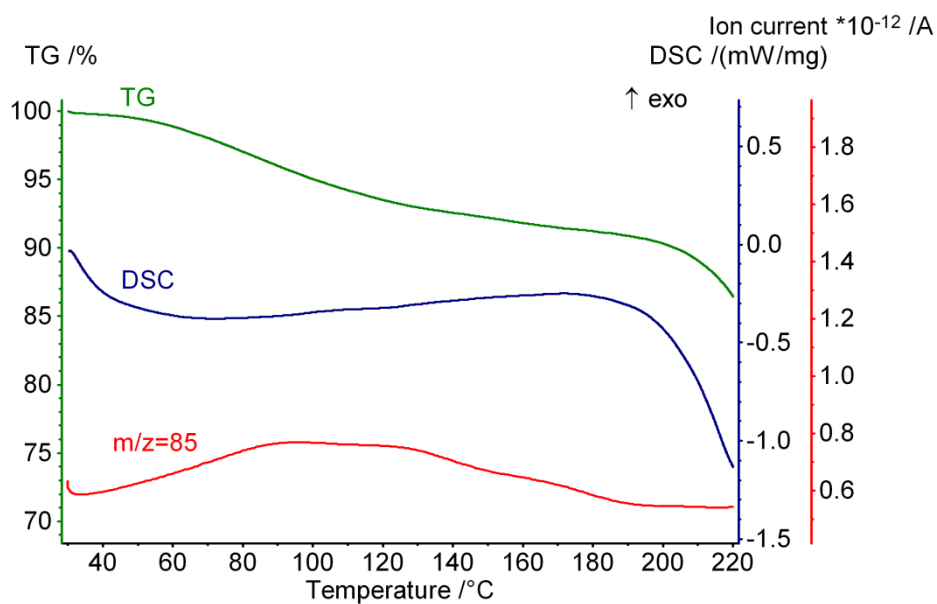


Figure 16S – The data of TG/DSC/MS analysis for product of AV saturation with vapor of chloroform. Ion thermogram of CHCl₃ (m/z=85) is shown. Heating rate is 10 K/min.

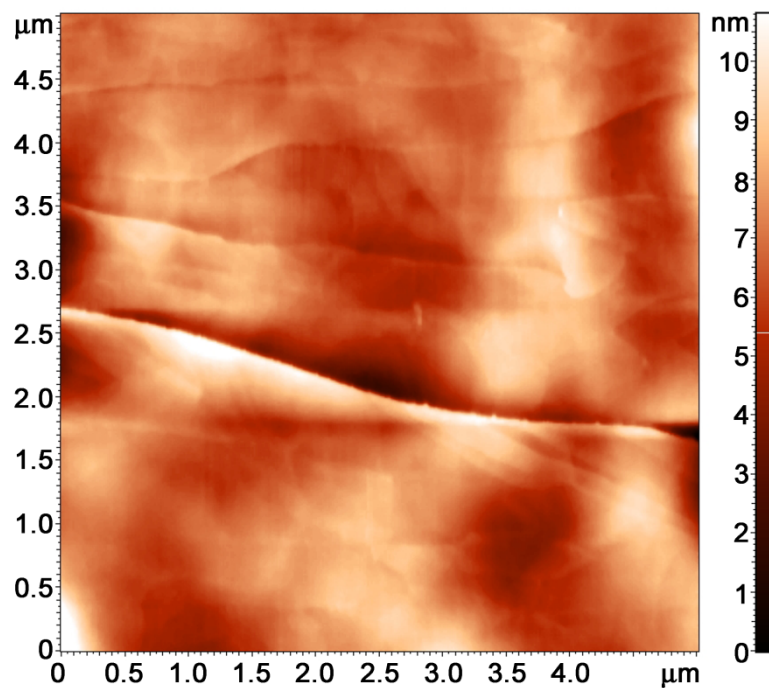


Figure 17S – AFM image of the surface of AV film saturated with vapors of nitromethane for 75 min, T=298K.

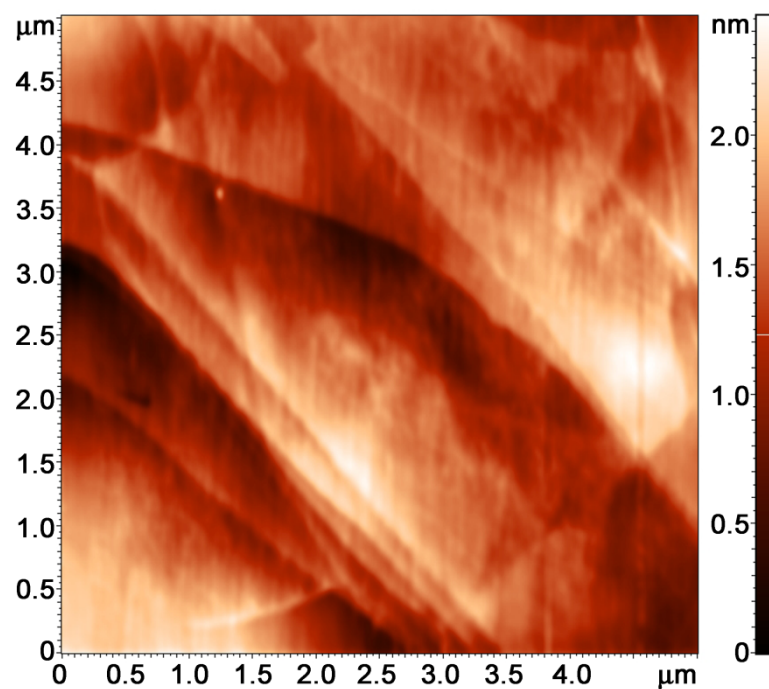


Figure 18S – AFM image of the surface of VA film saturated with vapors of water for 20 min, T=298K.

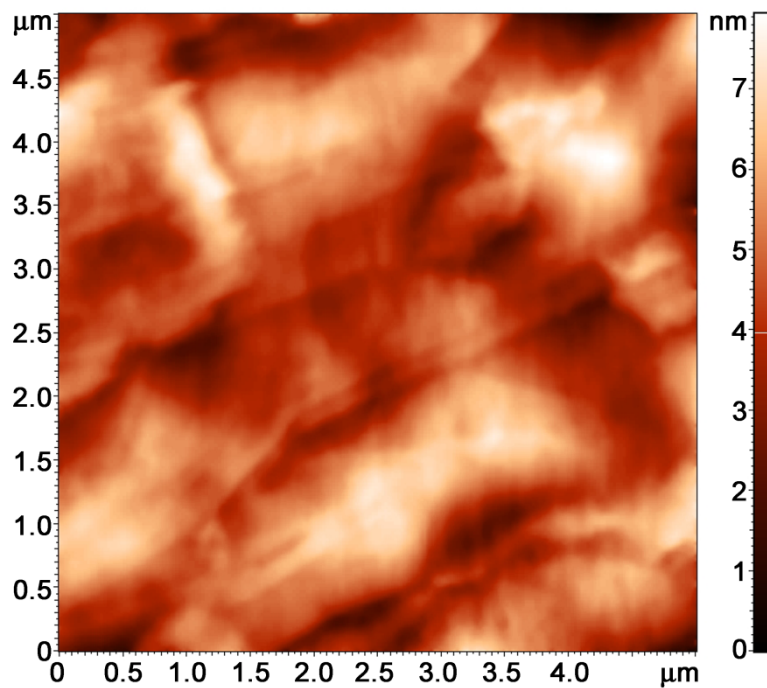


Figure 19S – AFM image of the surface of AV film saturated with vapors of *n*-hexane for 1 h, T=298K.

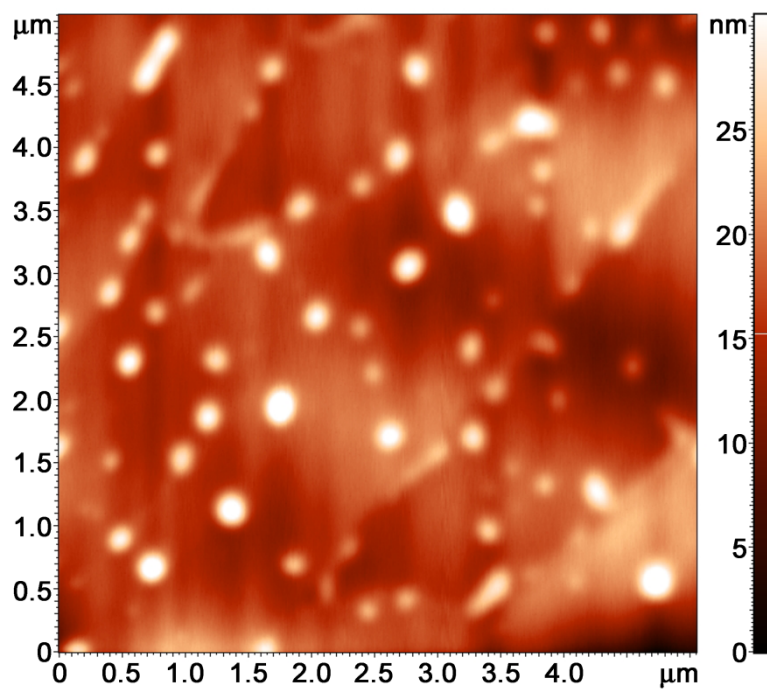


Figure 20S – AFM image of the surface of VA film saturated with vapors of *n*-hexane for 2 h, T=298K.

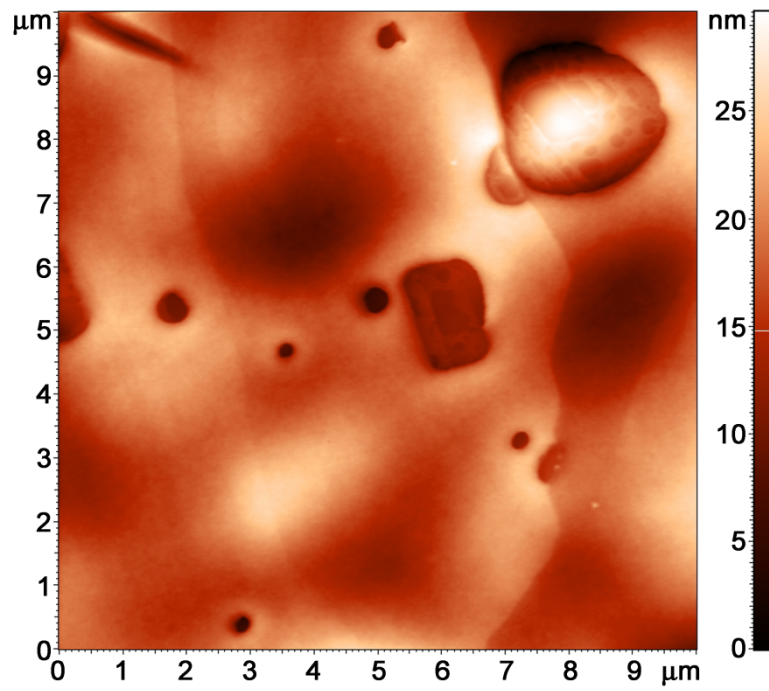


Figure 21S – AFM image of the surface of initial film of AV deposited on HOPG from a methanol solution before saturation with vapors of methylene chloride, T=298K.

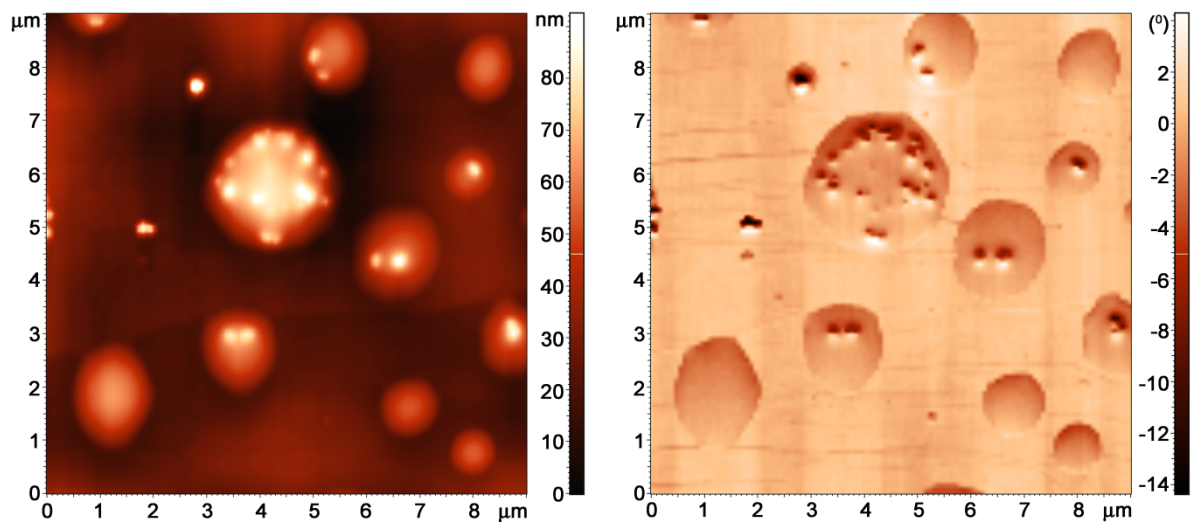


Figure 22S – AFM images of the surface of VA film saturated with vapors of methylene chloride for 75 min. Images are obtained in topography mode (left) and in phase contrast mode (right), T=298K.

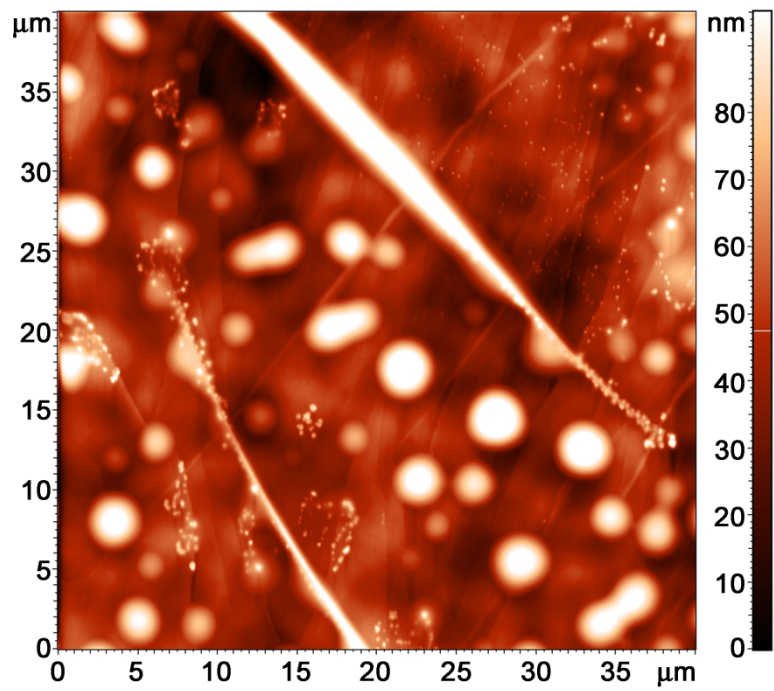


Figure 23S – AFM image of the surface of VA film saturated with vapors of chloroform for 60 min, T=298K.