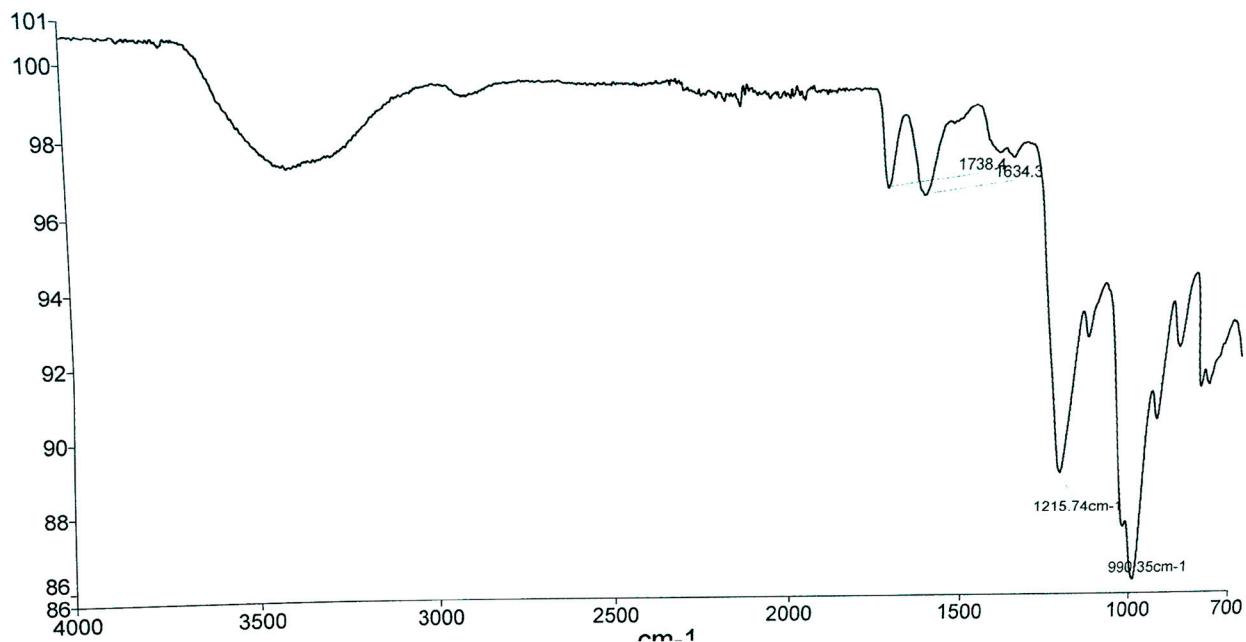
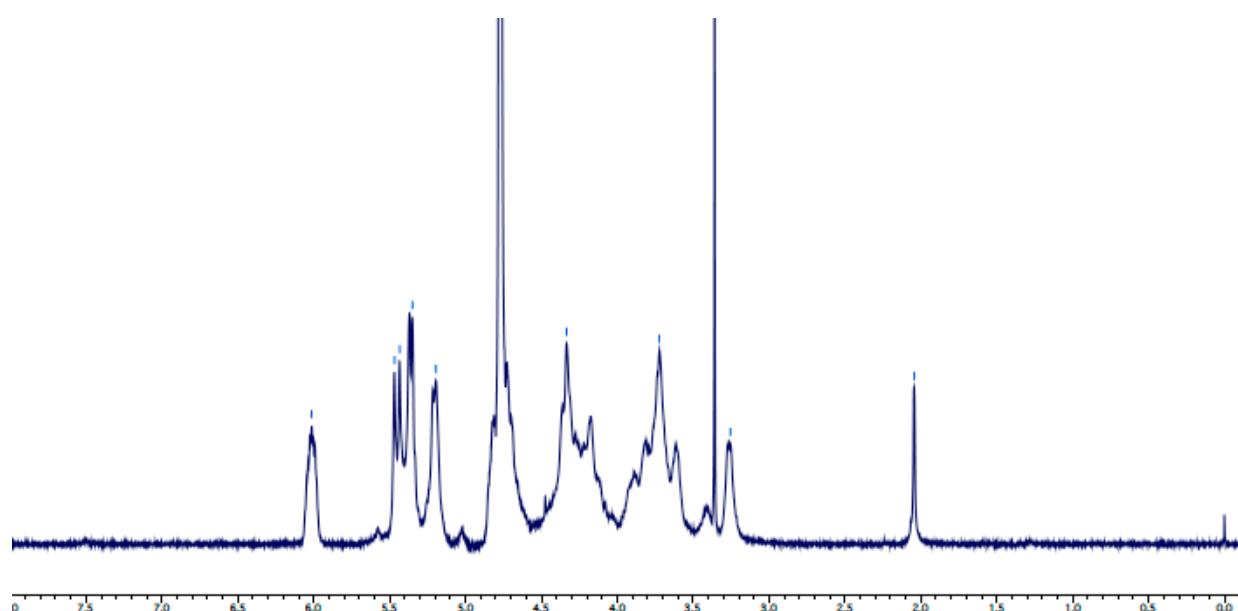


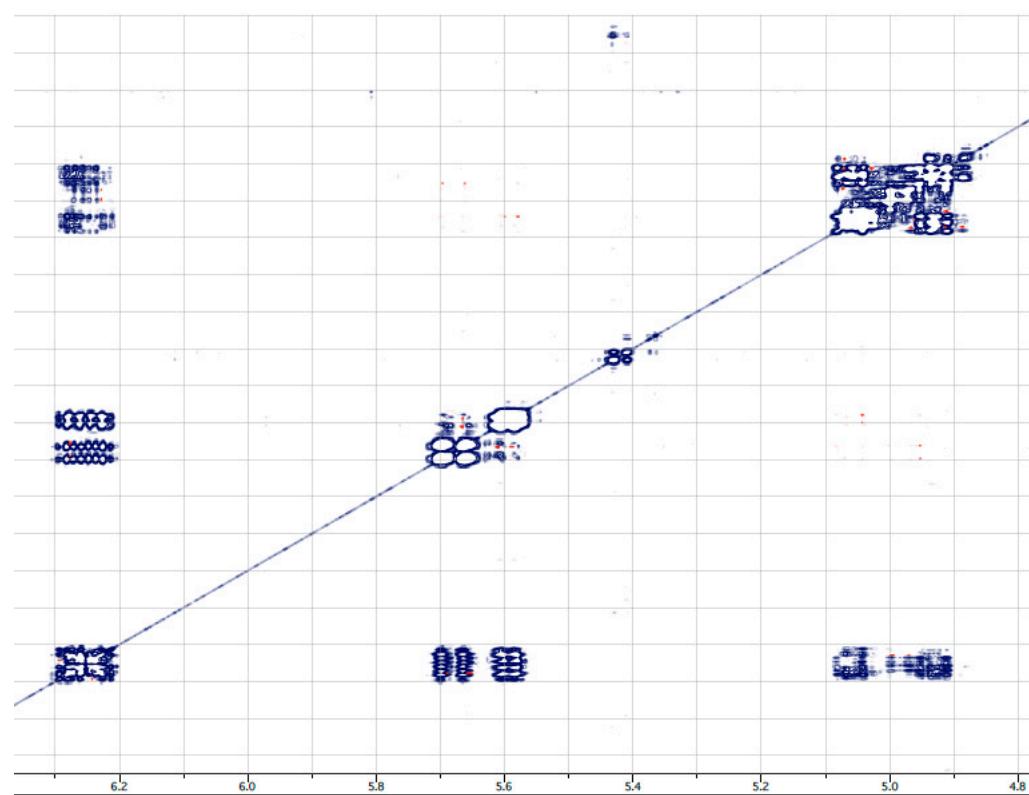
# Thiol-Ene Reaction of Heparin Allyl Ester, Heparin 4-Vinylbenzyl Ester and Enoxaparin

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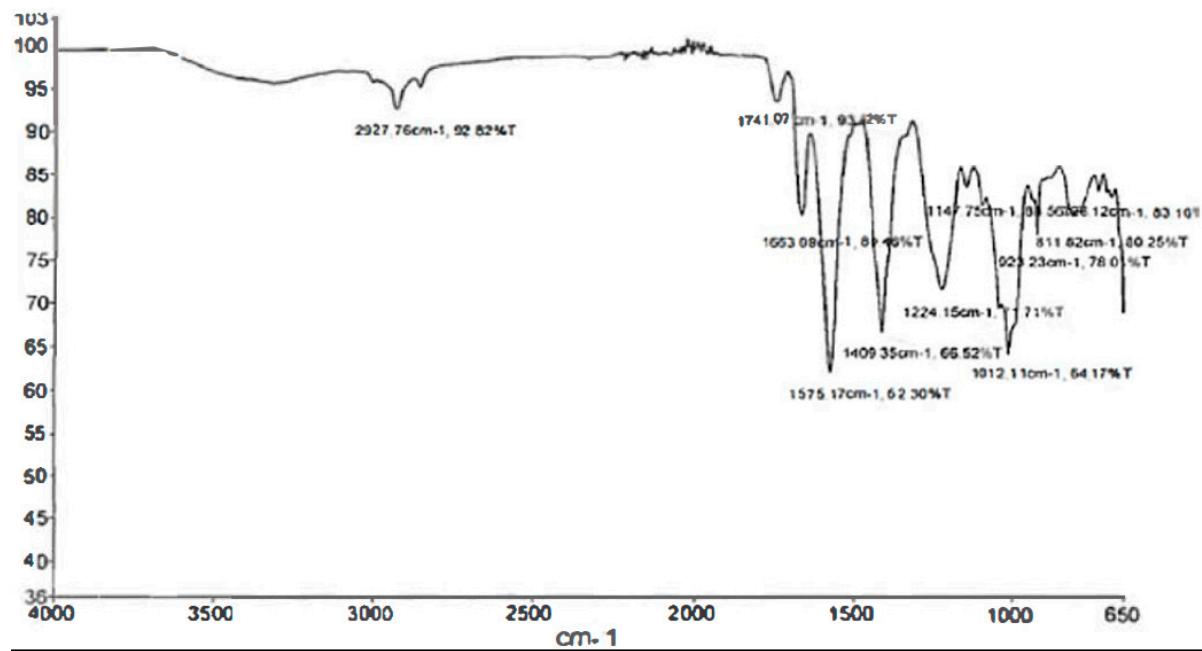
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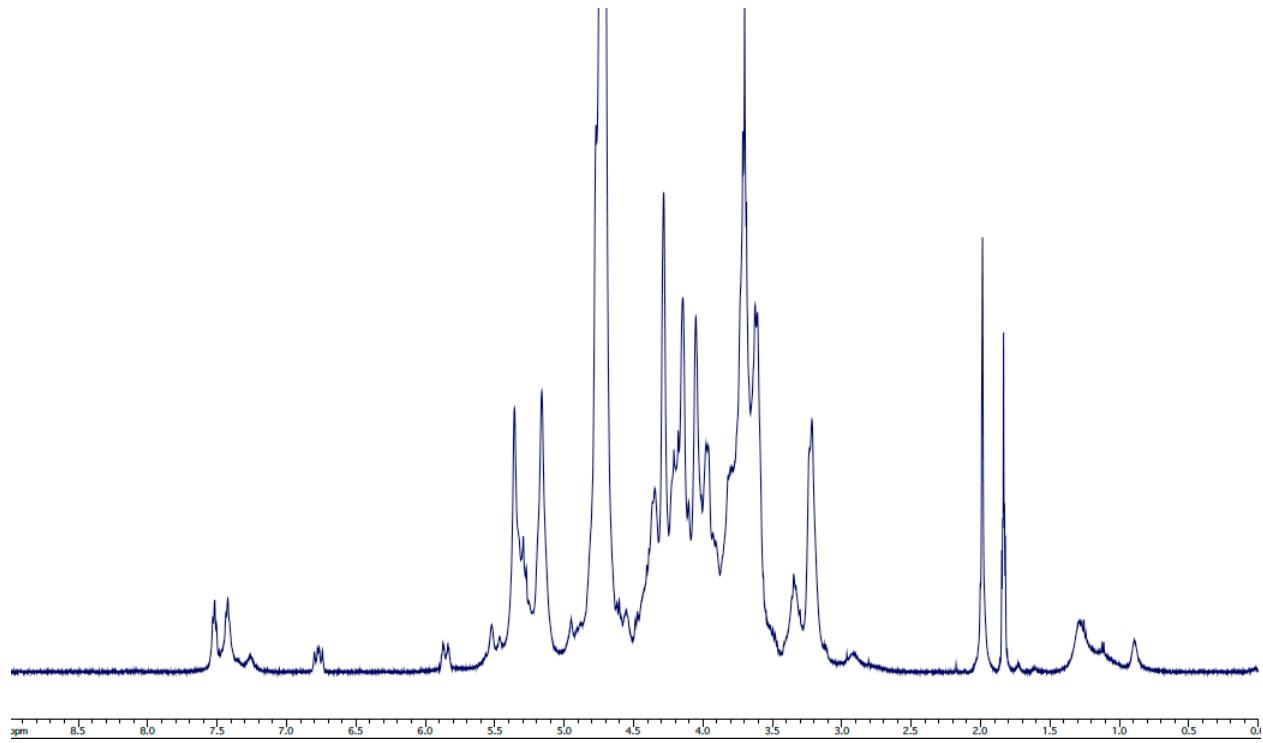
IR spectrum of heparin allyl ester (**1**).HNMR spectrum of heparin allyl ester (**1**).



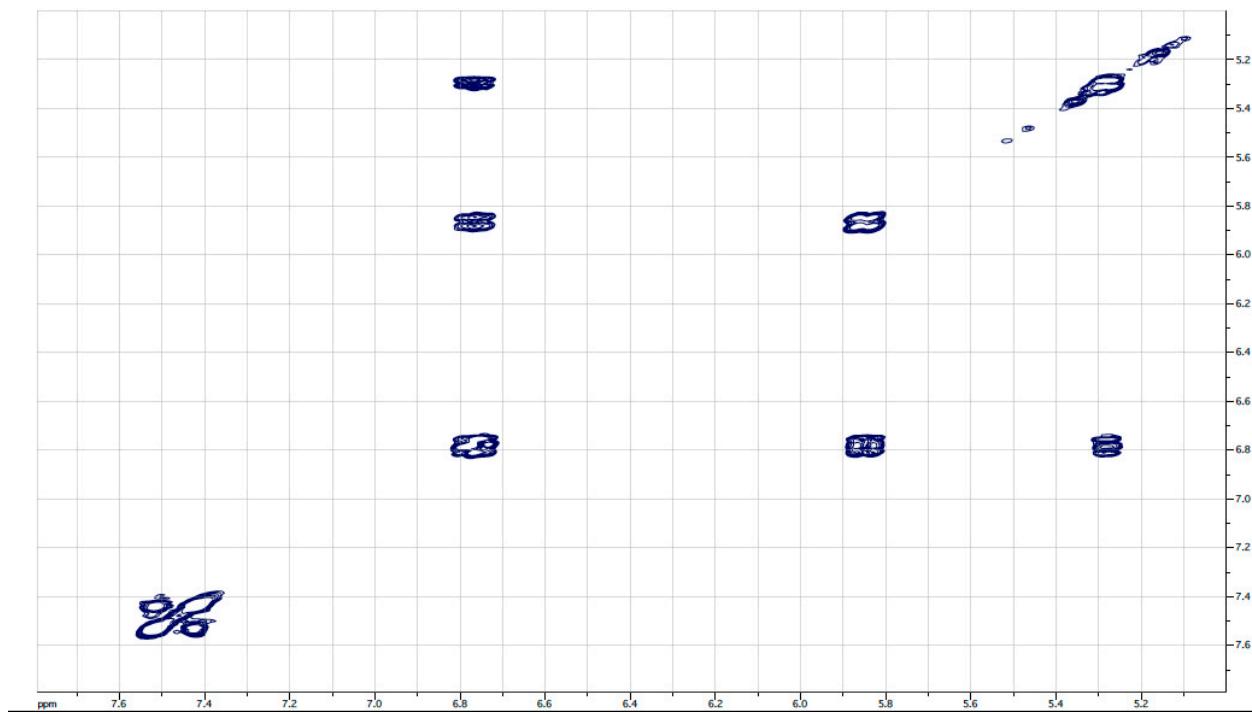
COSY spectrum of heparin allyl ester (**1**).



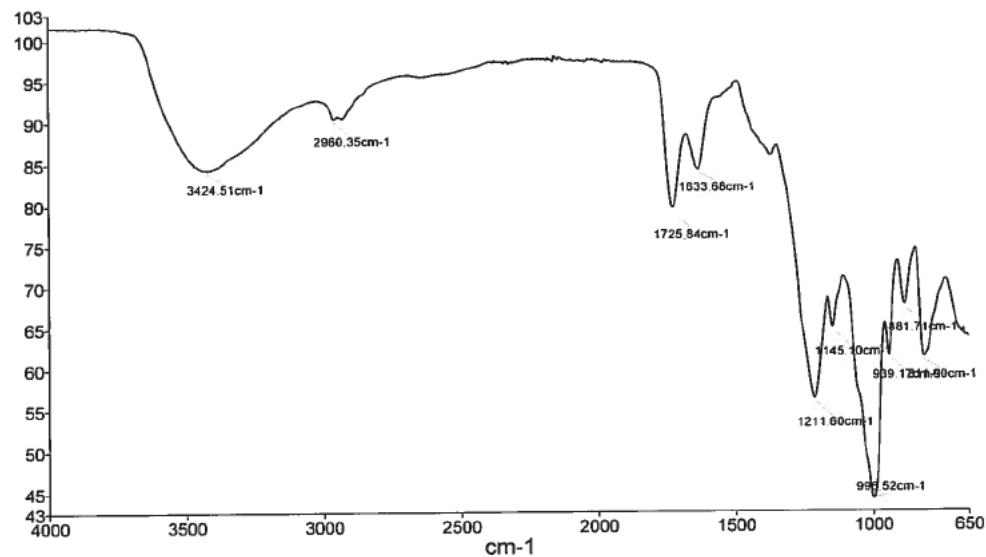
IR spectrum of heparin 4-vinylbenzyl ester (2).



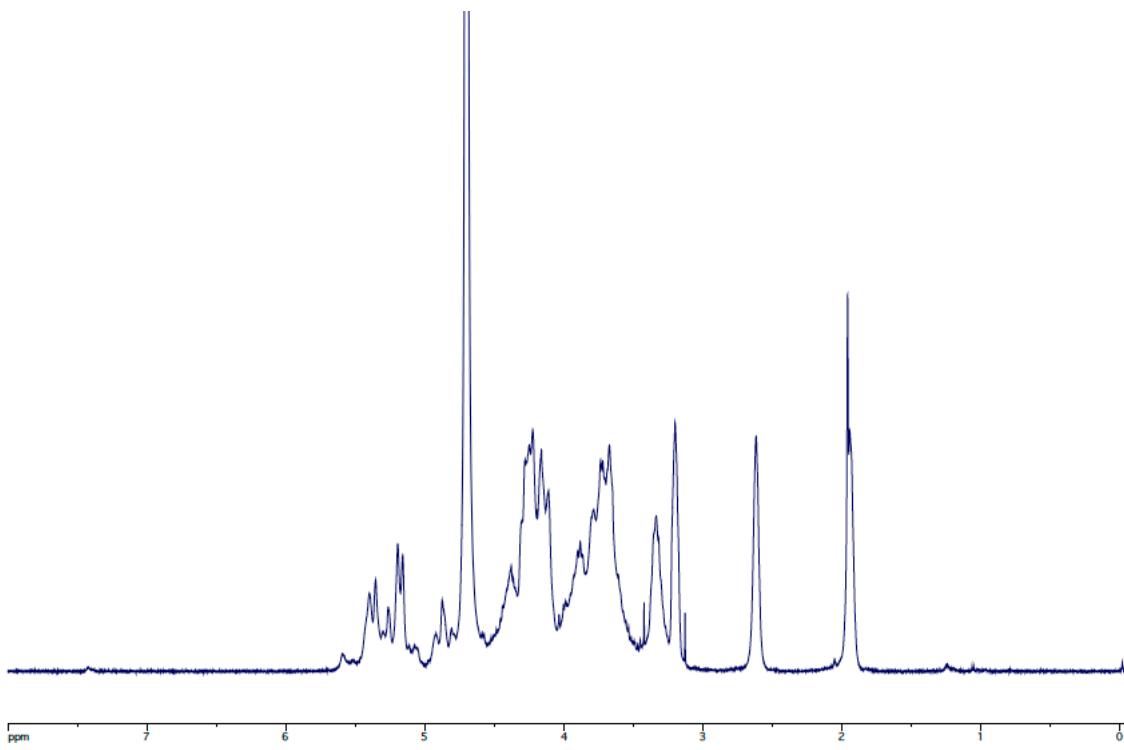
HNMR spectrum of heparin 4-vinylbenzyl ester (2).



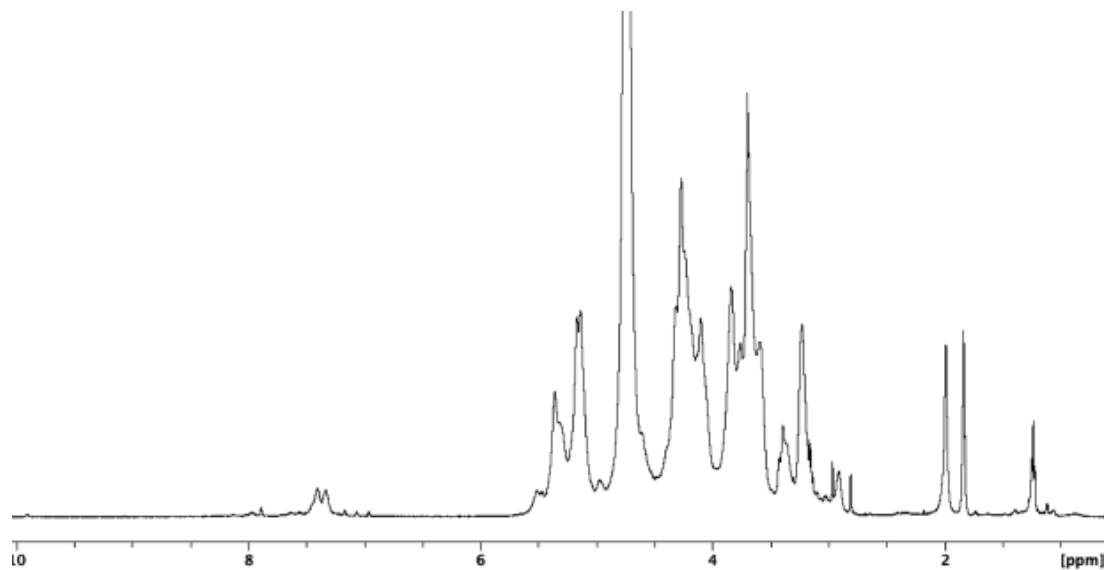
COSY spectrum of heparin 4-vinylbenzyl ester (2) in vinyl aromatic region.



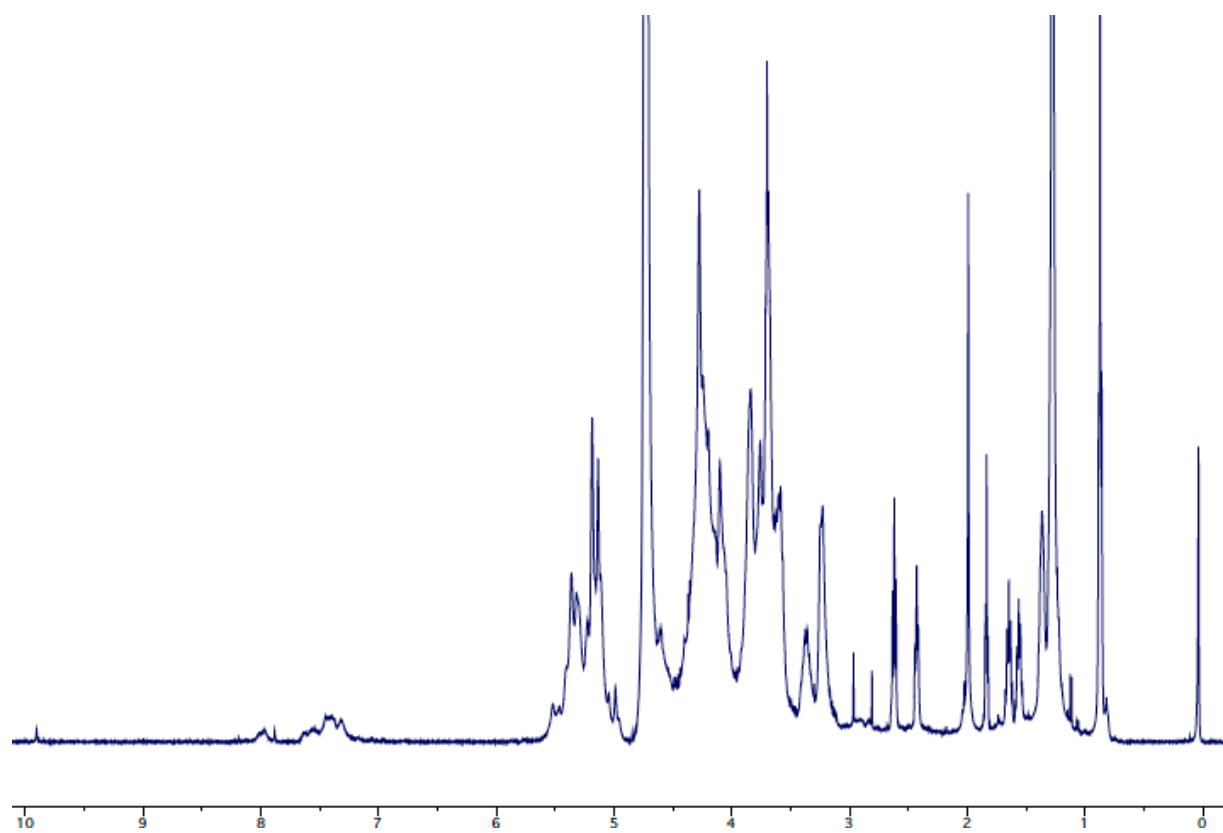
IR spectrum of thiol-ene reaction of heparin allyl ester with mercaptoacetic acid (3).



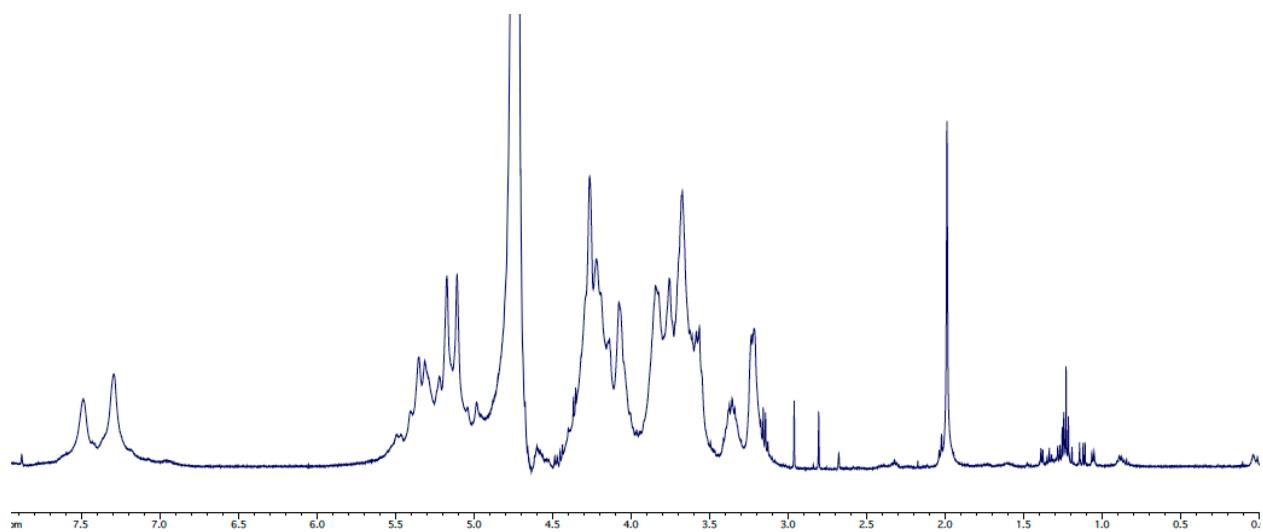
HNMR spectrum of thiol-ene reaction of heparin allyl ester with mercaptoacetic acid (3).



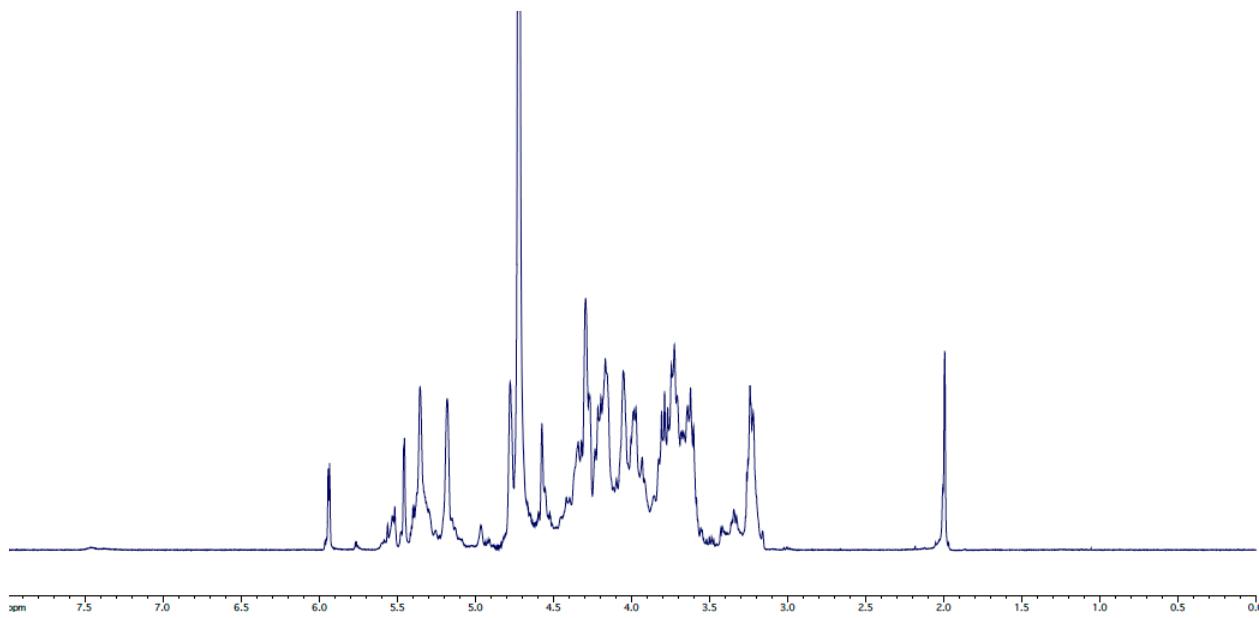
HNMR spectrum of thiol-ene reaction of heparin 4-vinylbenzyl ester with L-cysteine (4).



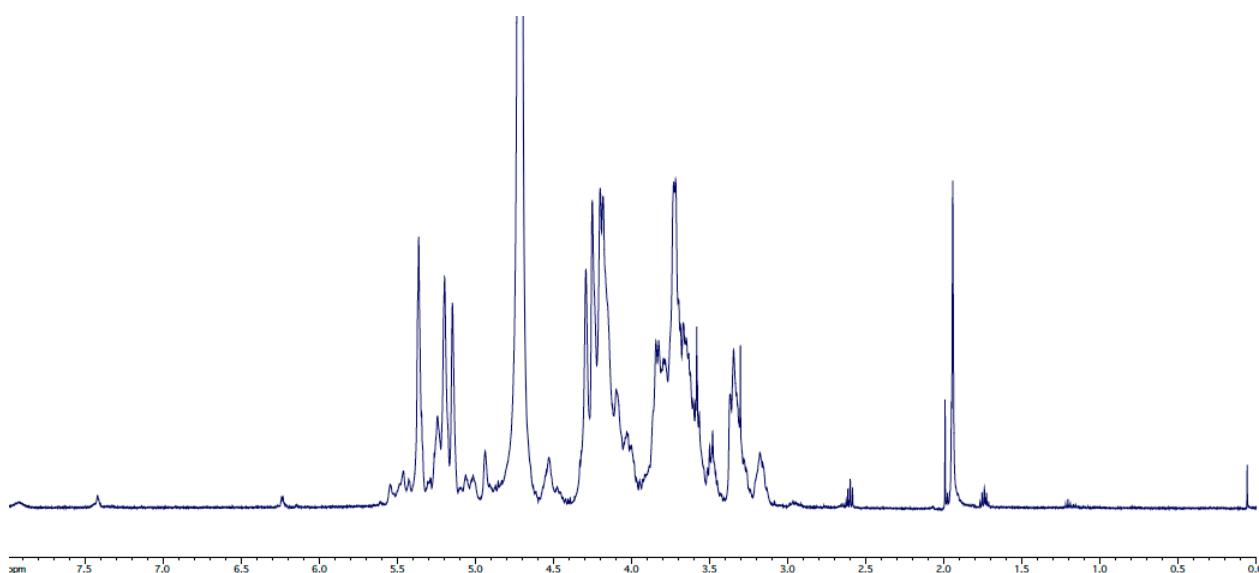
<sup>1</sup>H NMR spectrum of thiol-ene reaction of heparin 4-vinylbenzyl ester with octyl mercaptan (**5**).



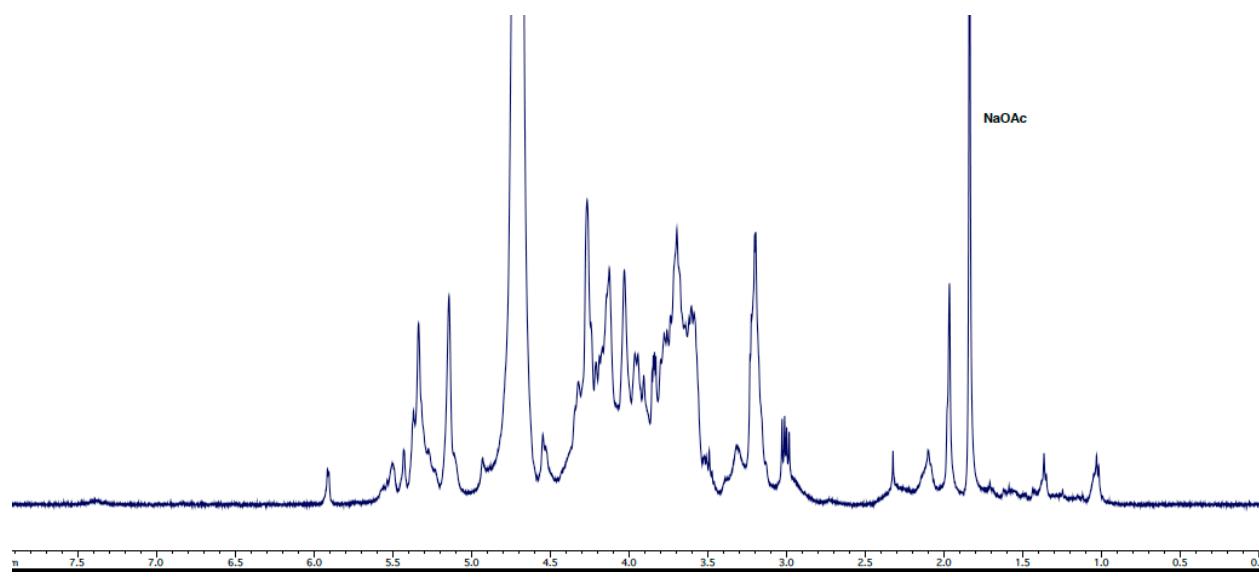
<sup>1</sup>H NMR spectrum of thiol-ene reaction of heparin 4-vinylbenzyl ester with 4-aminothiophenol (**6**).



HNMR spectrum of enoxaparin.



HNMR spectrum of thiol-ene reaction of enoxaparin and mercaptoacetic acid (7).



HNMR spectrum of thiol-ene reaction of enoxaparin and L-cysteine (8).