Supporting Information

A novel method for the synthesis of 2-oxazolidinones and 2-imidazolidinones from five-membered cyclic carbonates and *β*-aminoalcohols or 1,2-diamines

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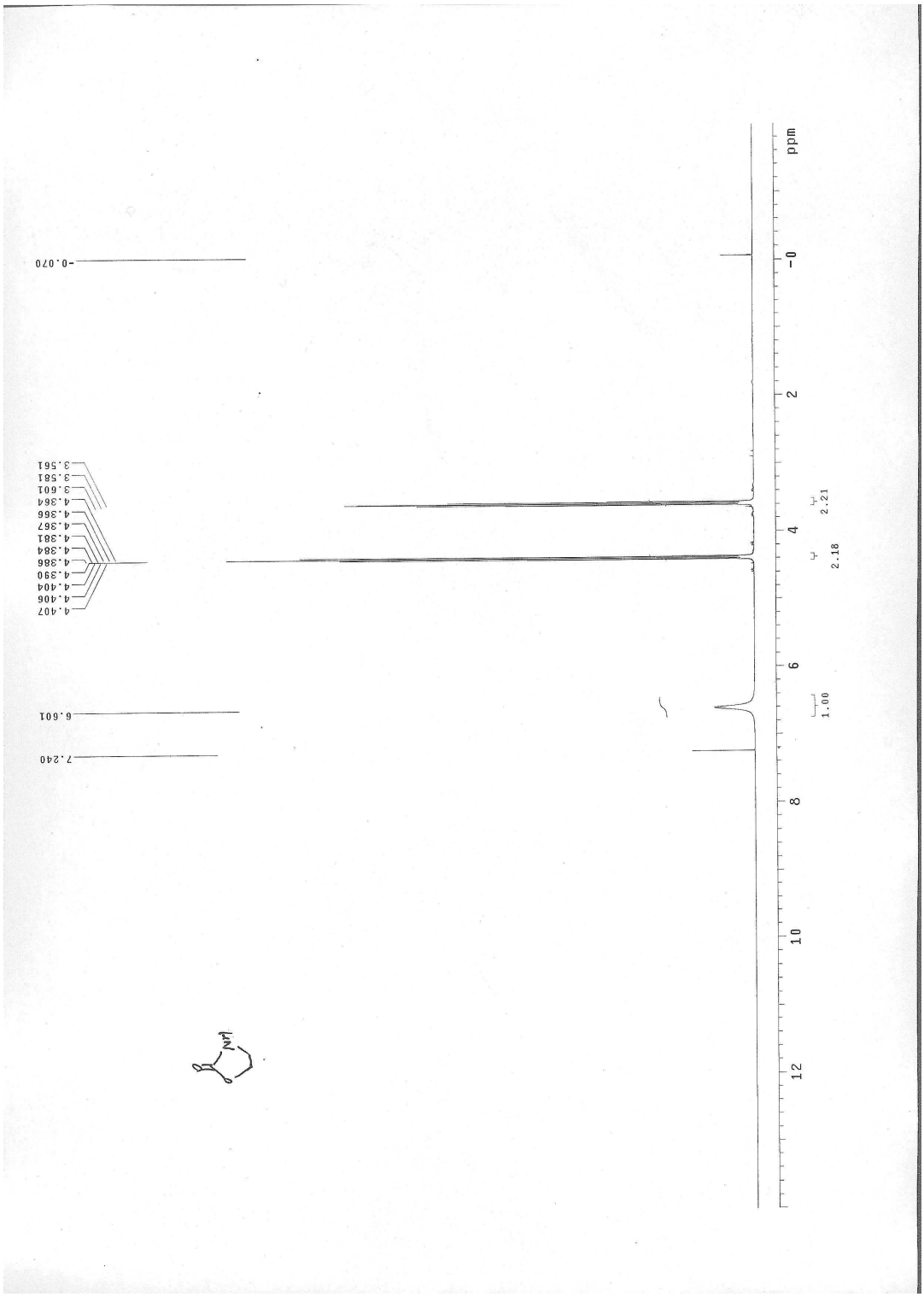
Experimental section

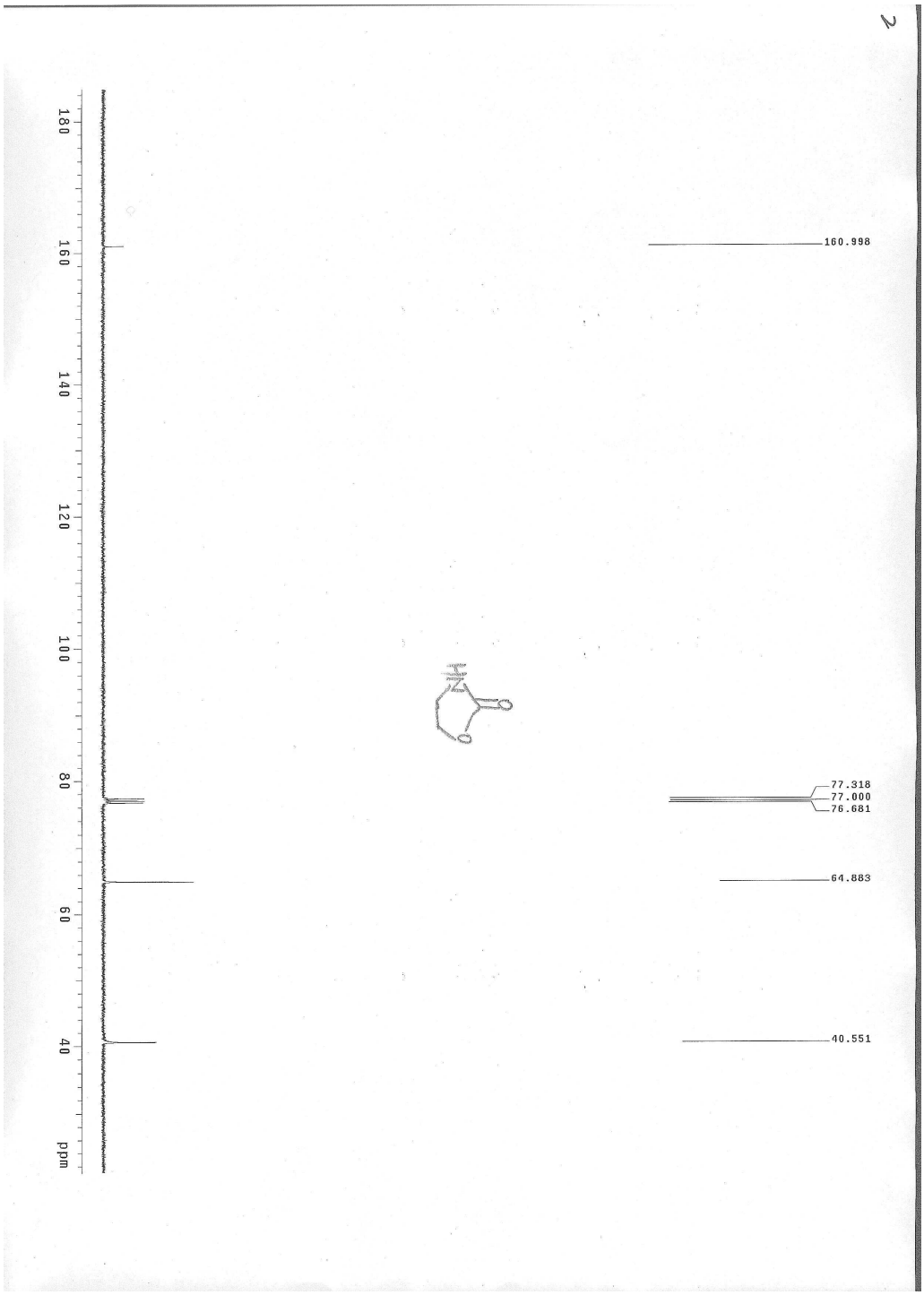
All reaction flask and solvent were used directly without purification. Flash column chromatography was performed over silica (100-200 mesh). NMR spectra were recorded on a 400-MHz spectrometer. ^{13}C NMR spectra were obtained with broadband proton decoupling. For spectra recorded in D_2O and $CDCl_3$, unless noted, chemical shifts were recorded relative to the internal TMS (tetramethylsilane) reference signal. Thin layer chromatography was performed using Silica.

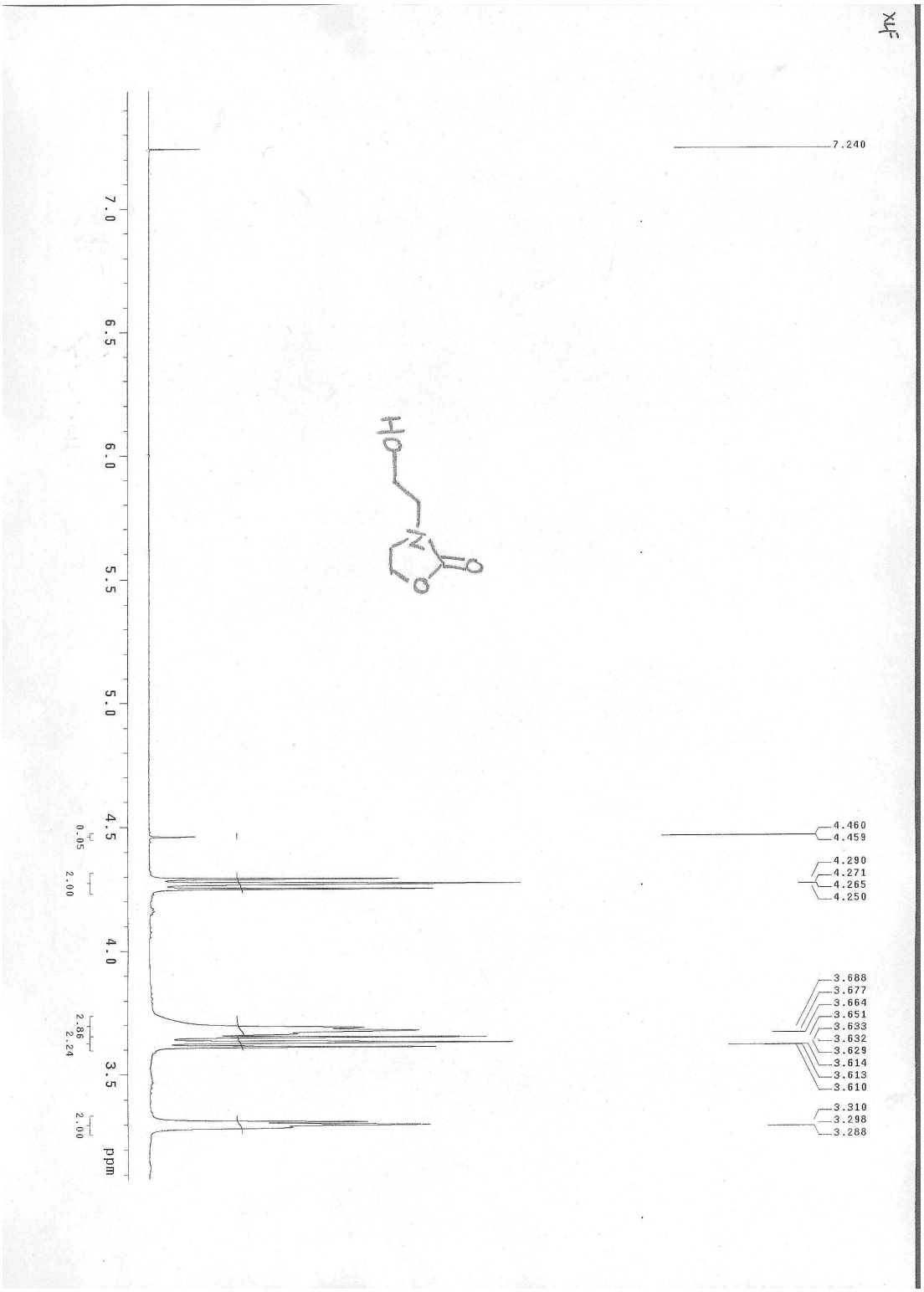
Typical reaction procedure:

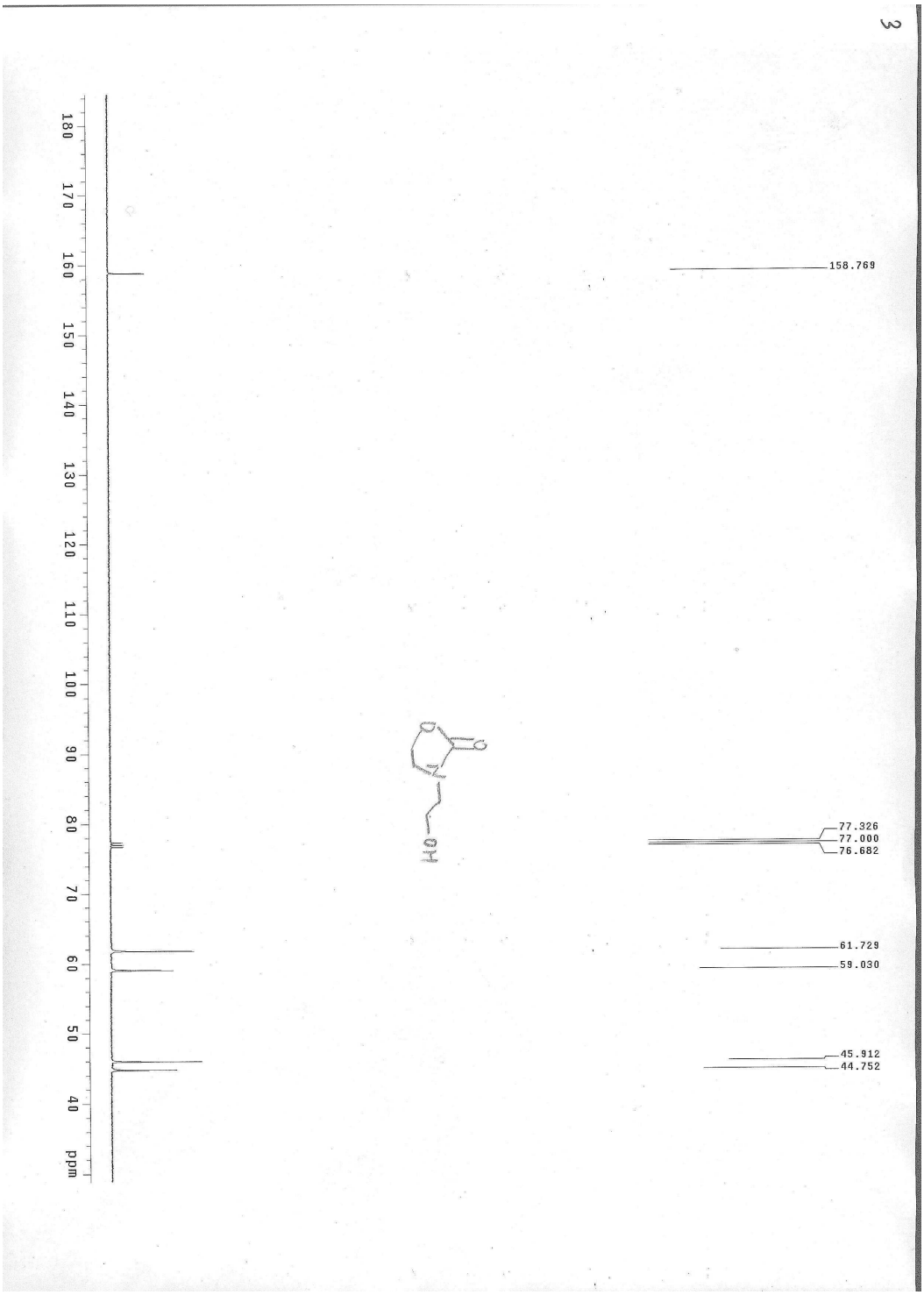
For each reaction, cyclic carbonate (10 mmol), β-aminoalcohols or 1,2-diamines (10 mmol) in DMF (5 ml) and potassium carbonate (0.1 mmol) were charged into a 25ml round-bottomed flask equipped with a magnetic stirrer at 80 for 5h. All the prodcut were known compounds[1] and the obtained products were analyzed on a Hewlett-Packard 6890/5973 GC-MS and NMR. Quantitative analyses were carried out over a Agilent 6820 GC and column chromatography on a silica gel (200-300 mesh, elent: methanol/dichloromethane 1:10).

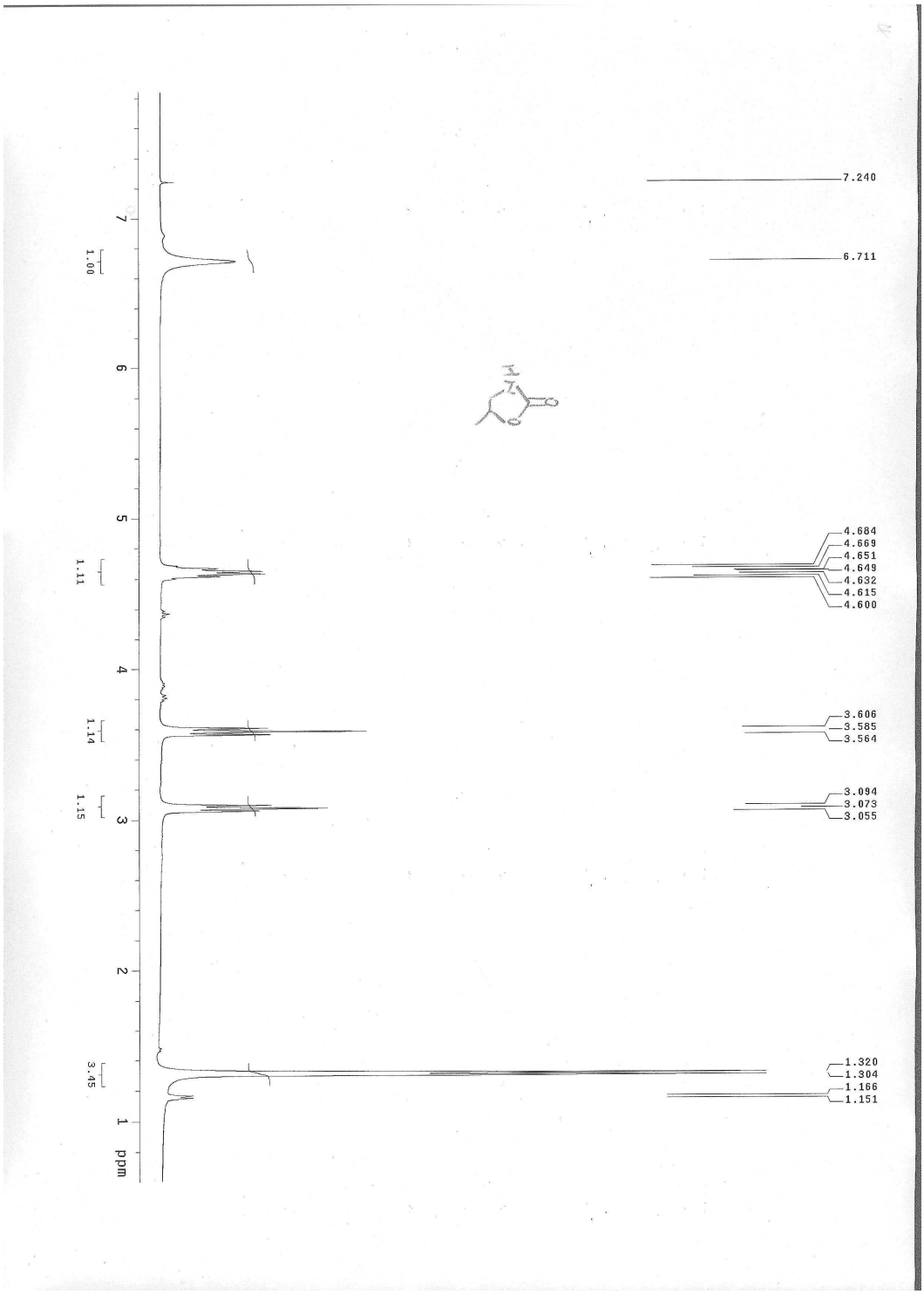
^{1}H and ^{13}C NMR spectra of 2-oxazolidinones and 2-imidazolidinones:

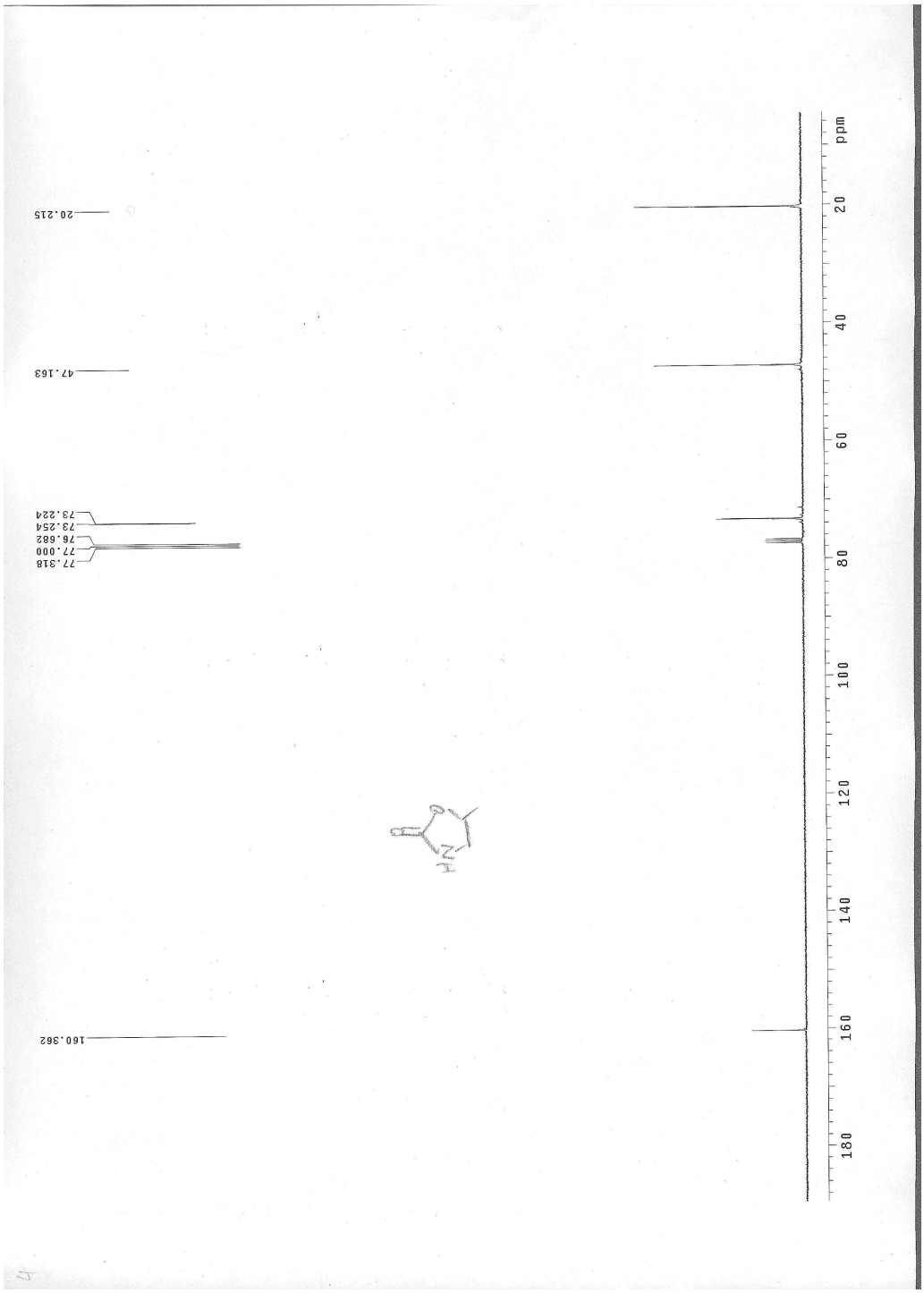


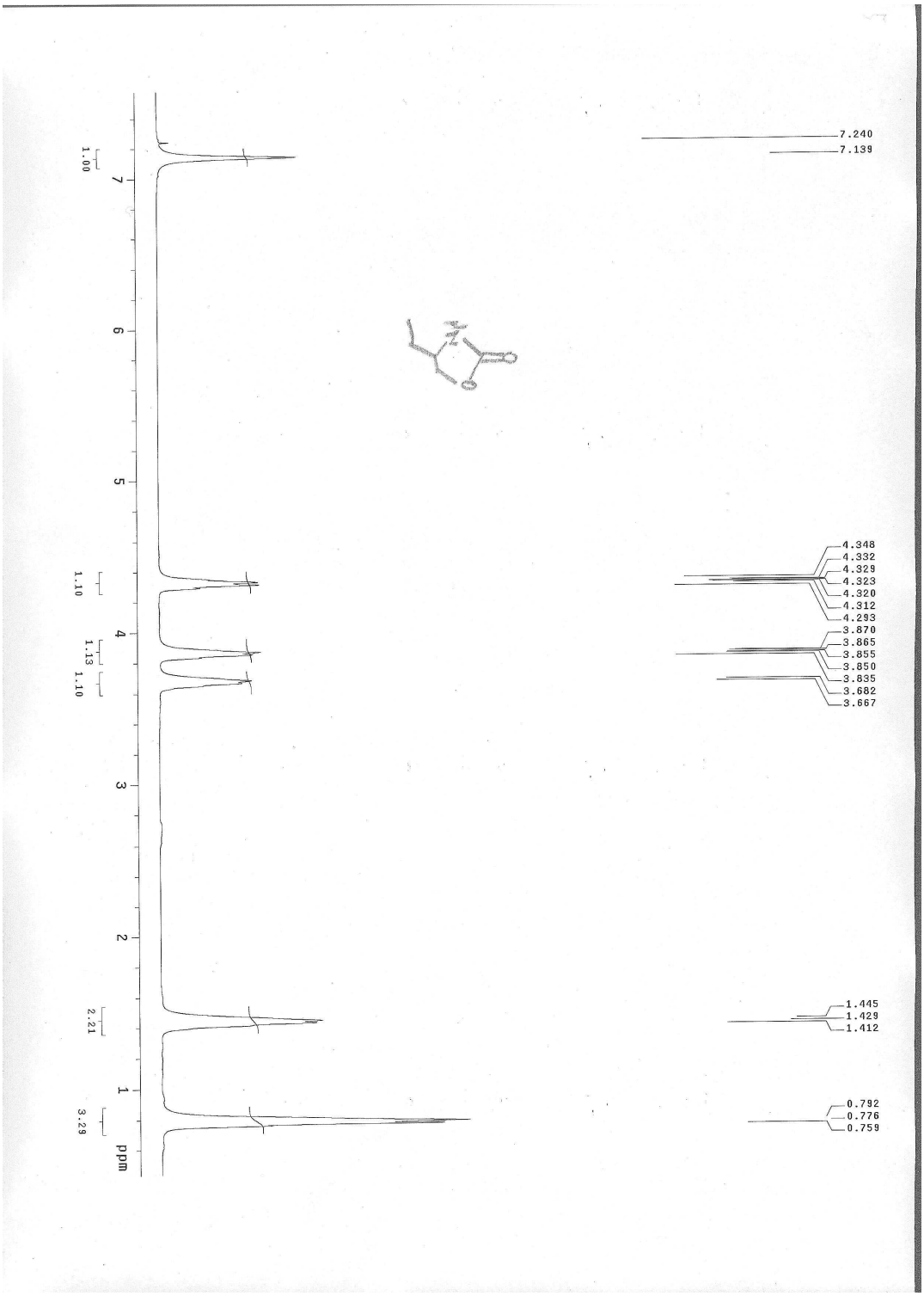


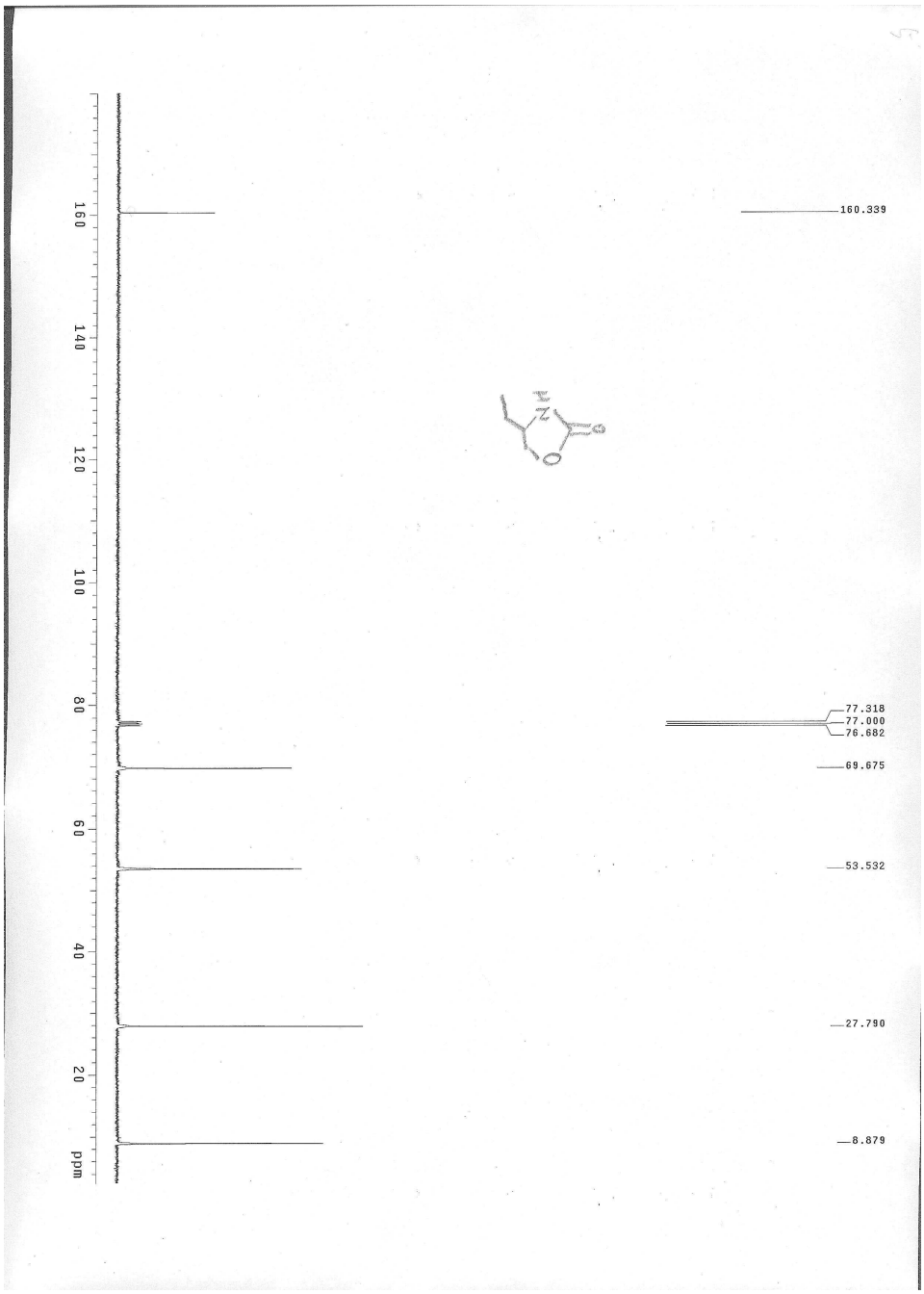


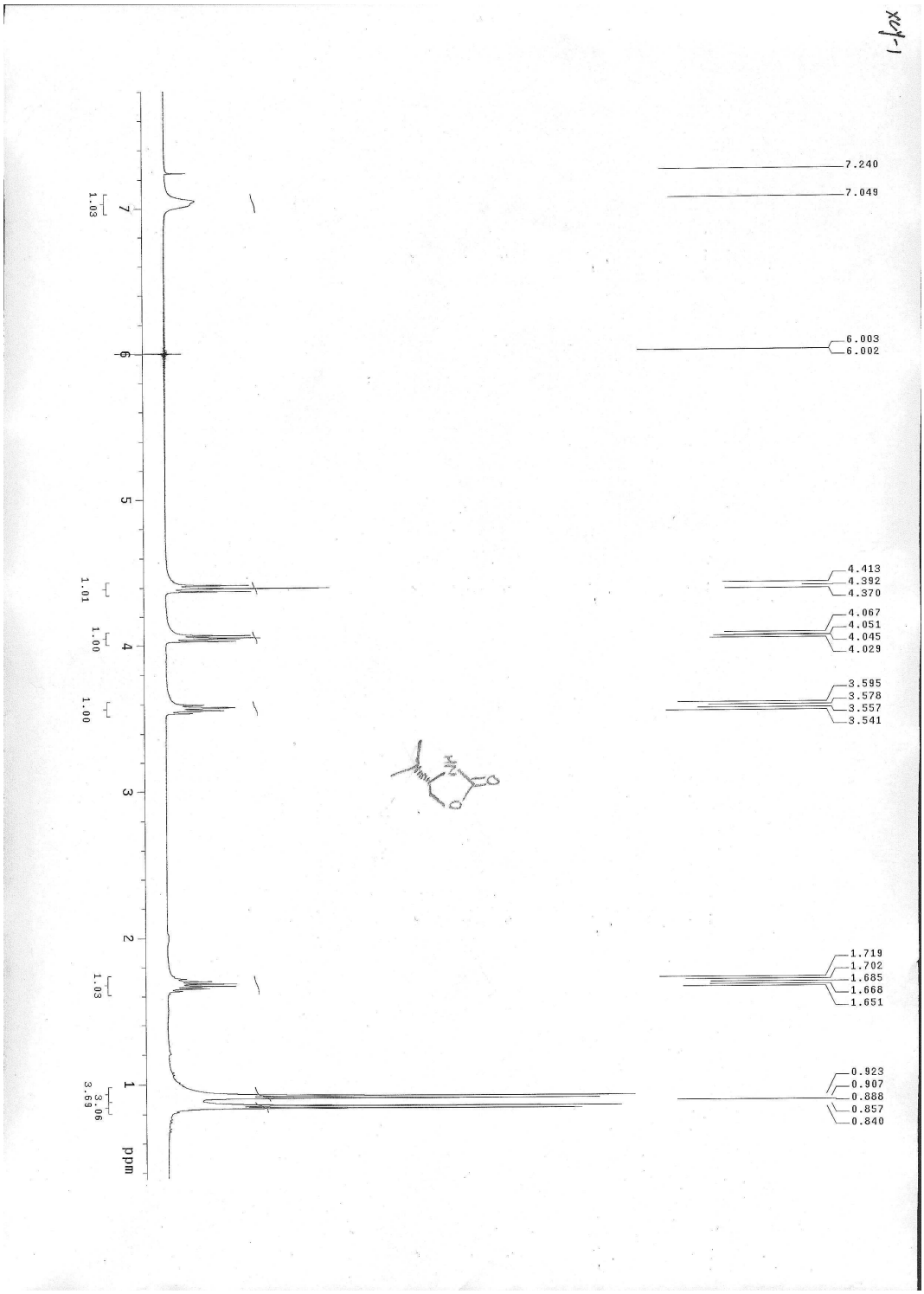


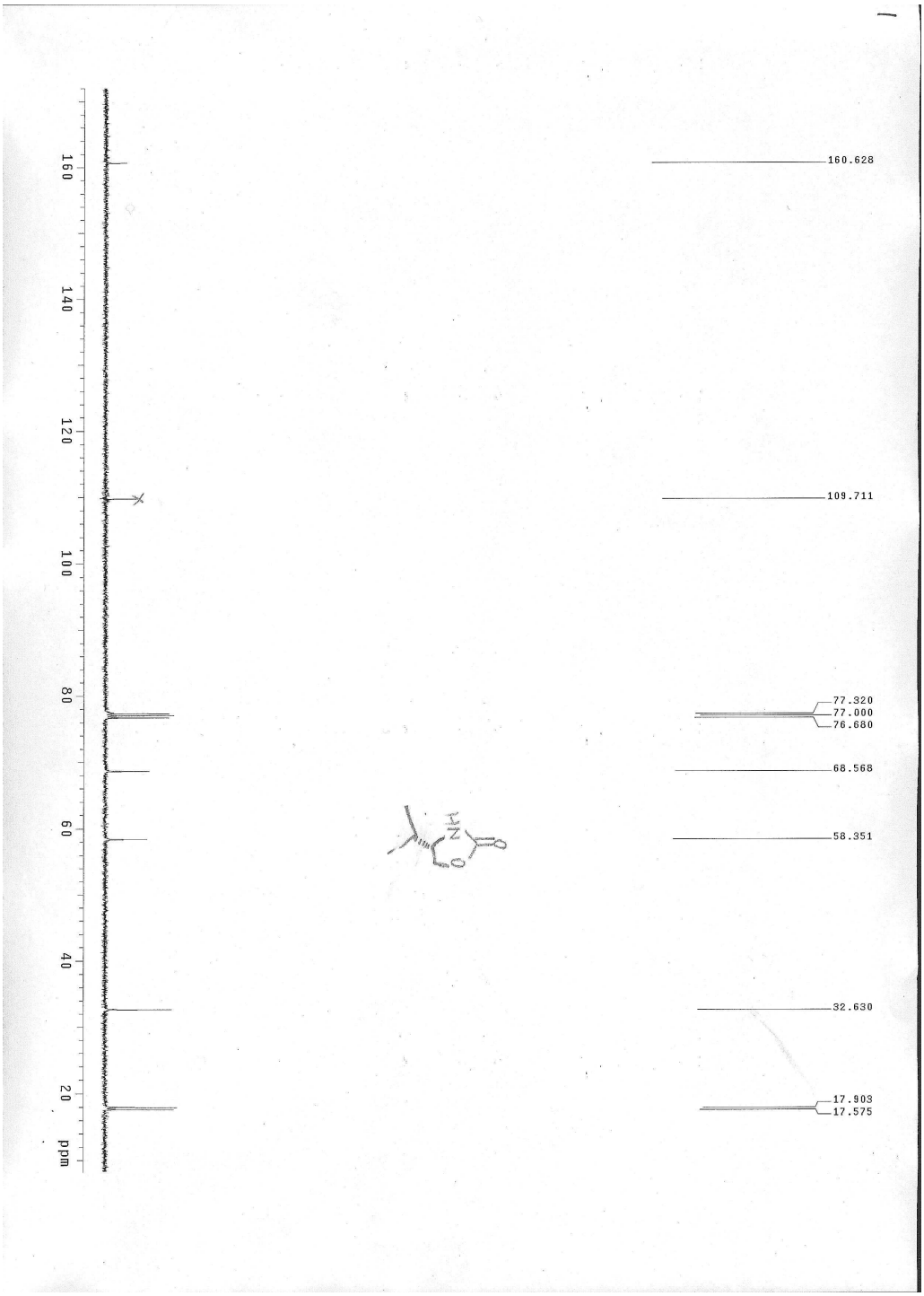


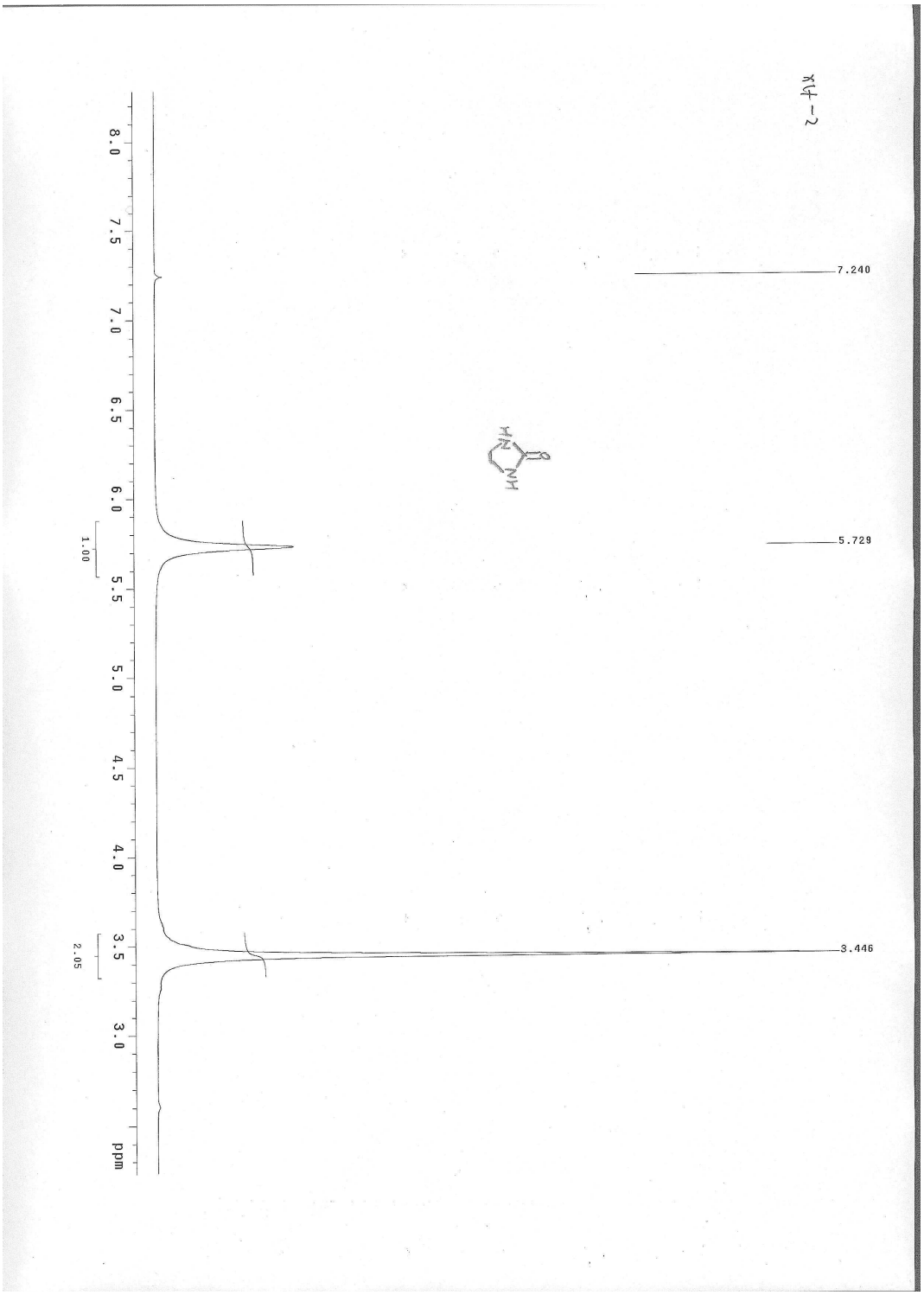


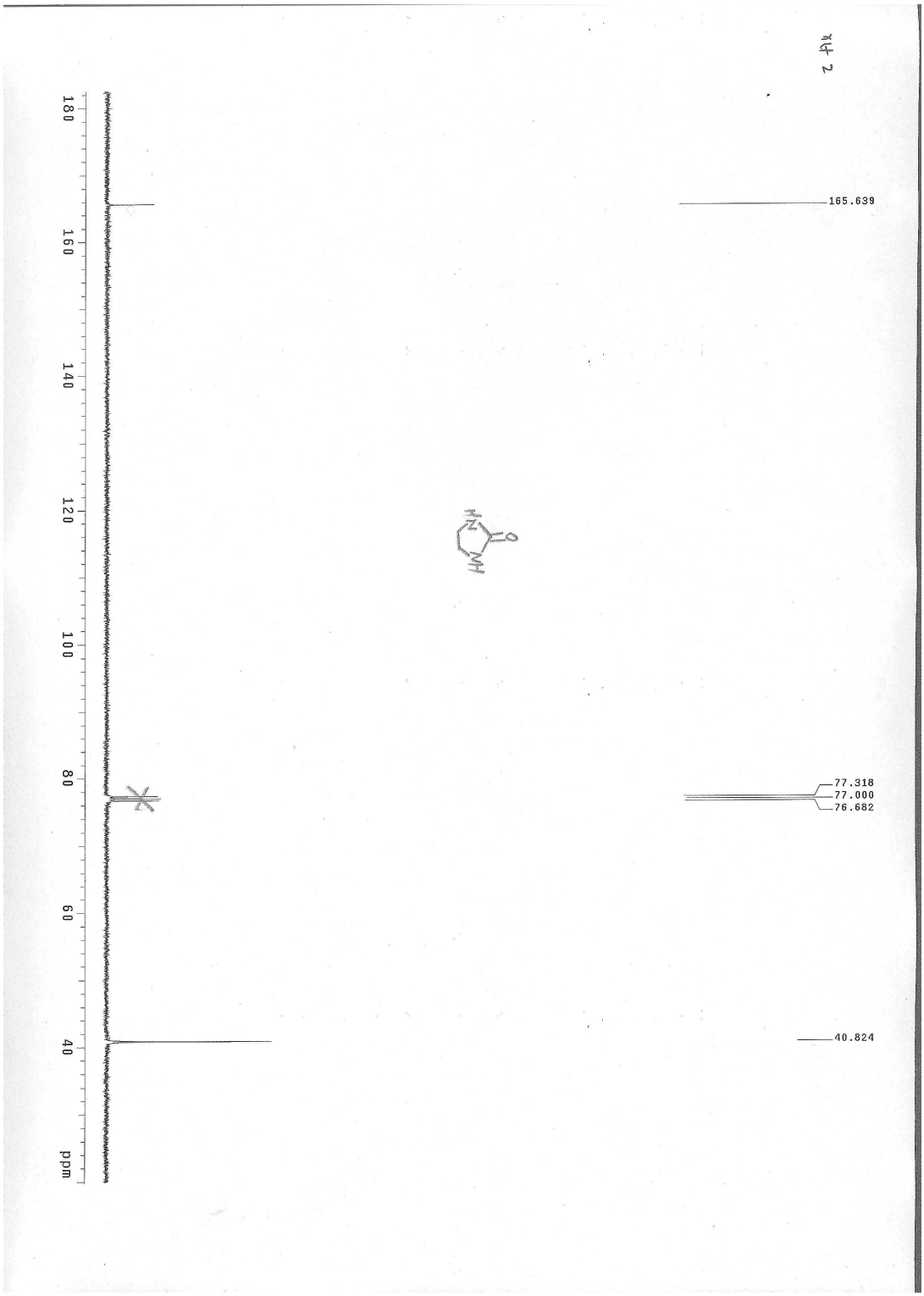


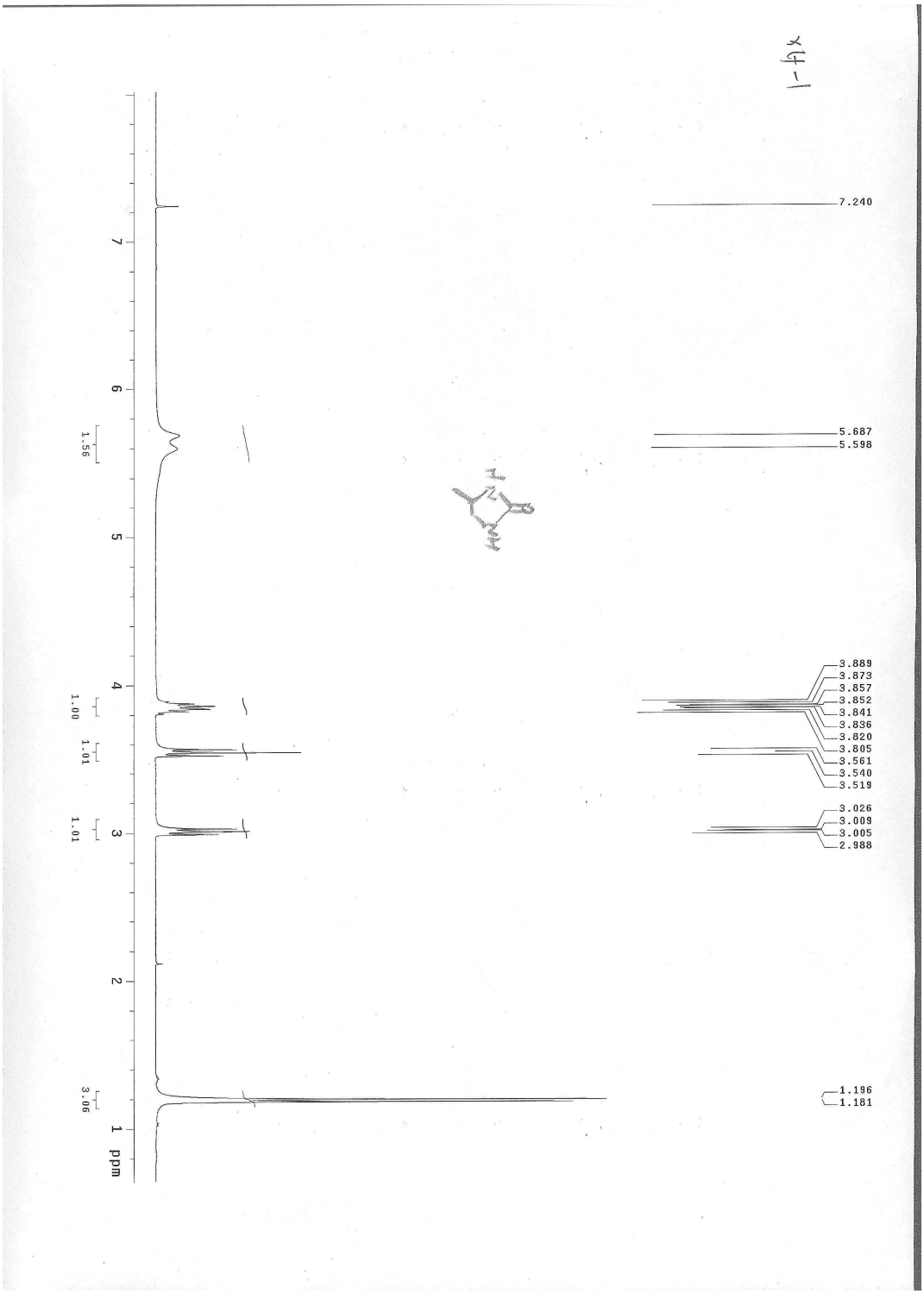


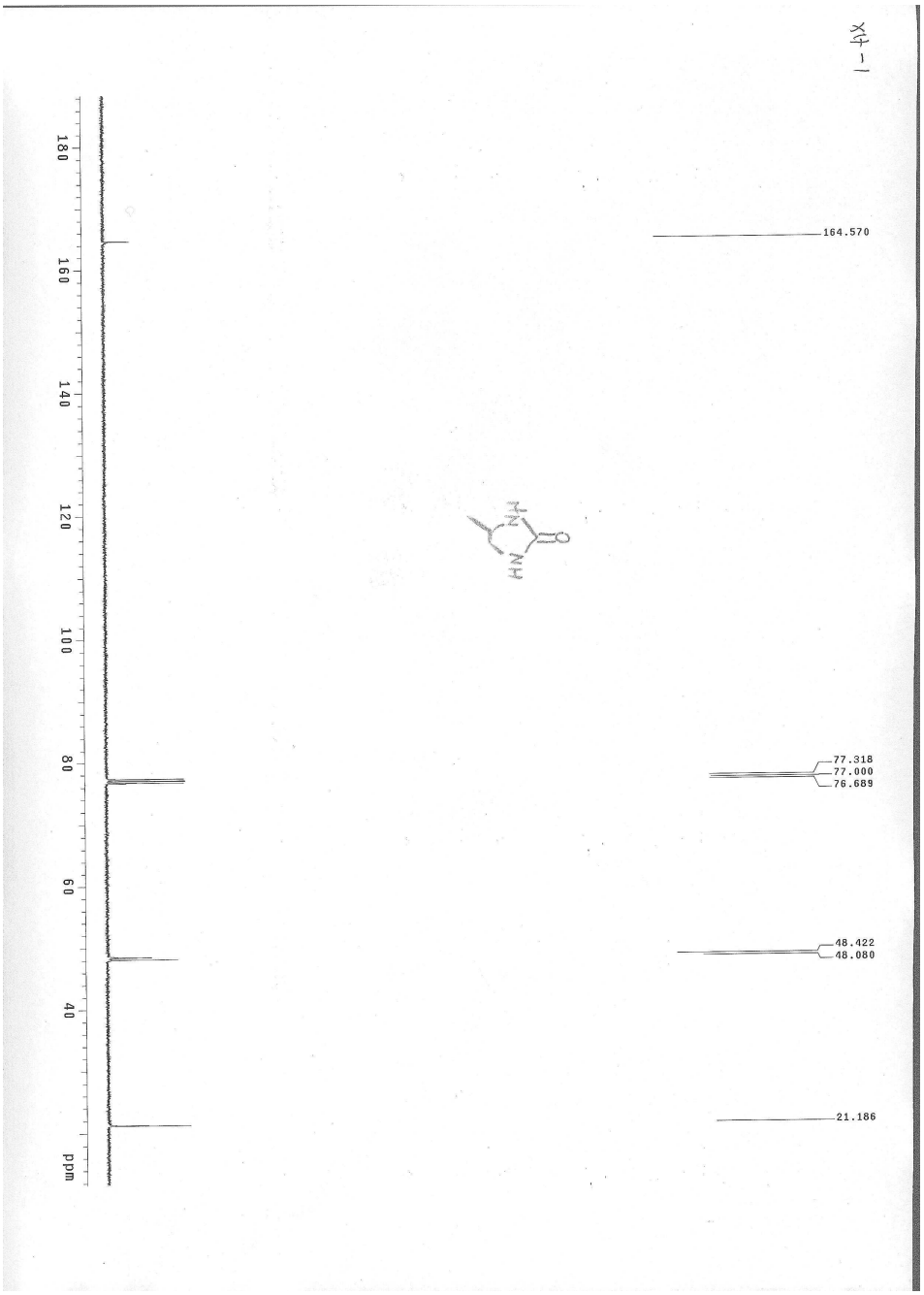


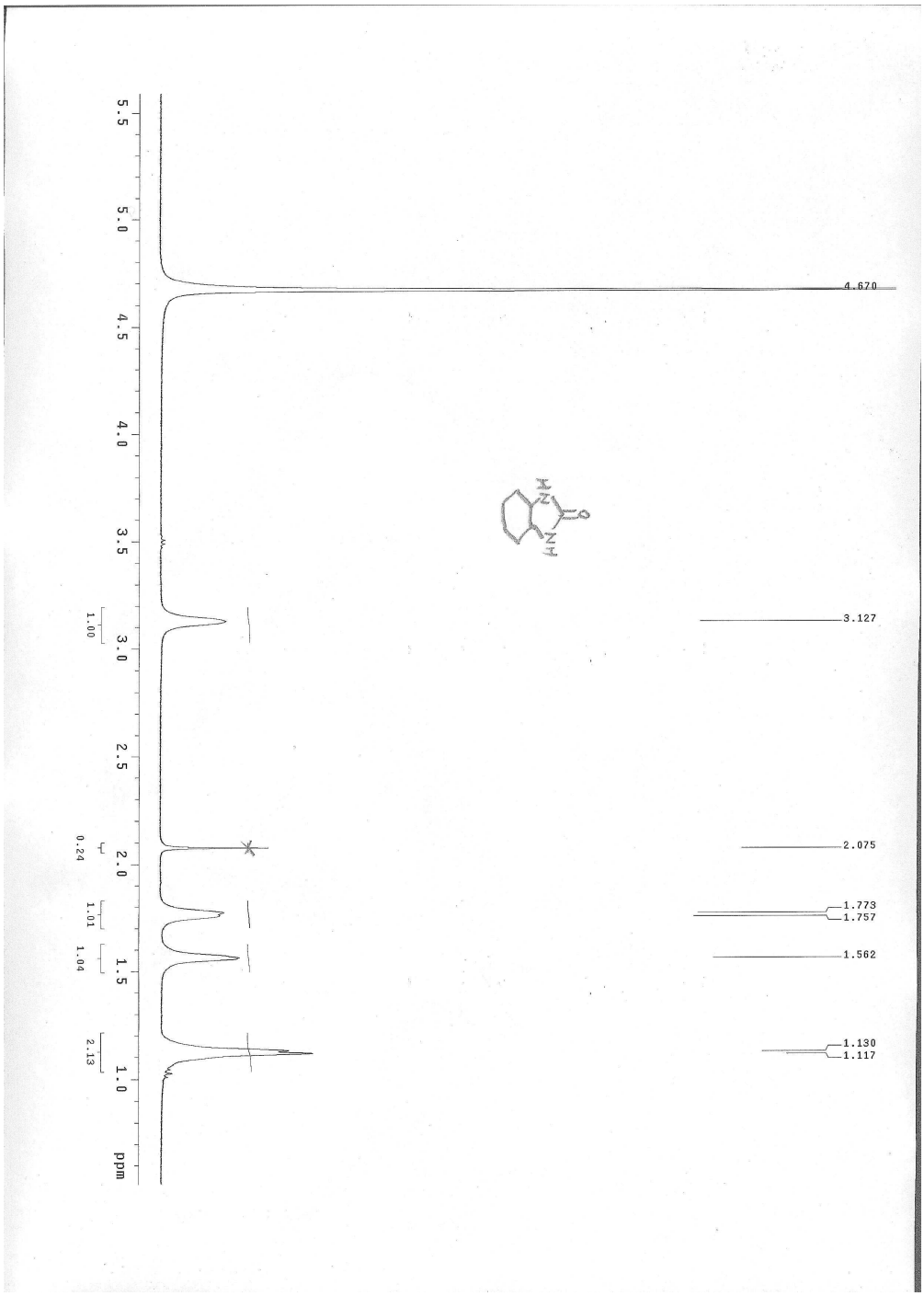


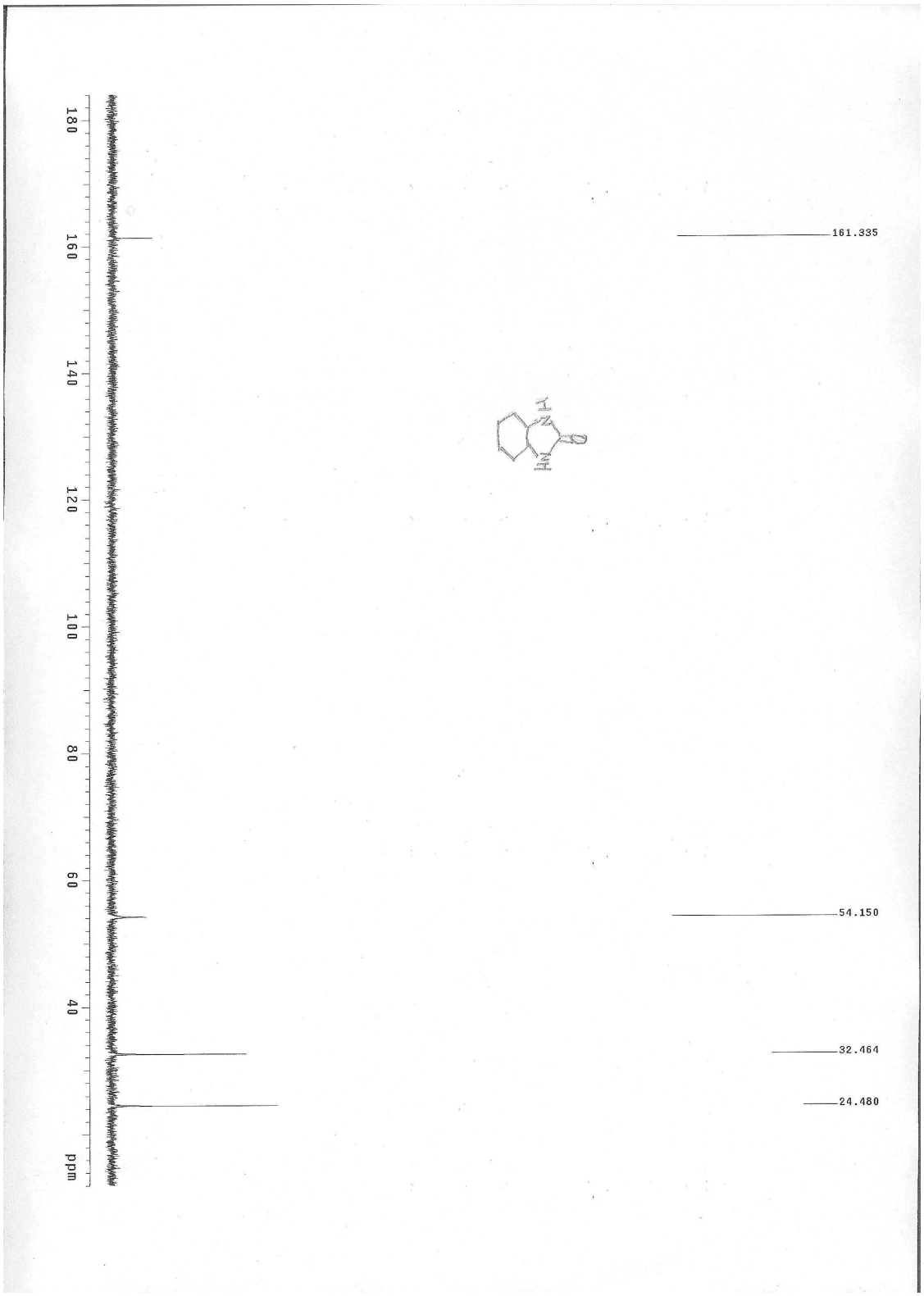












Reference:

1. B. M. Bhanage, S. Fujita, Y. Ikushima, M. Arai, *Green Chem.*, 2003, **5**, 340;B. M. Bannge, S. I. Fujita, Y. Ikushima, M. Ari, *Green Chem.*, 2004, **6**, 78, Fuwei Li, Chungu Xia, *J. Catal*., 2004, **227**, 542;Volume 227, Sudo, Y. Morioka, E. Koizumi, F. Sanda, T. Endo, *Tetrahedron Lett.*, 2003, **44**, 7889; M. Feroci, A. Gennaro, A. Inesi, M. Orsini, L. Palombi, *Tetrahedron Lett*., 2002, **43**, 5863.