

# **Salts of amoxapine with improved solubility for enhanced pharmaceutical applicability**

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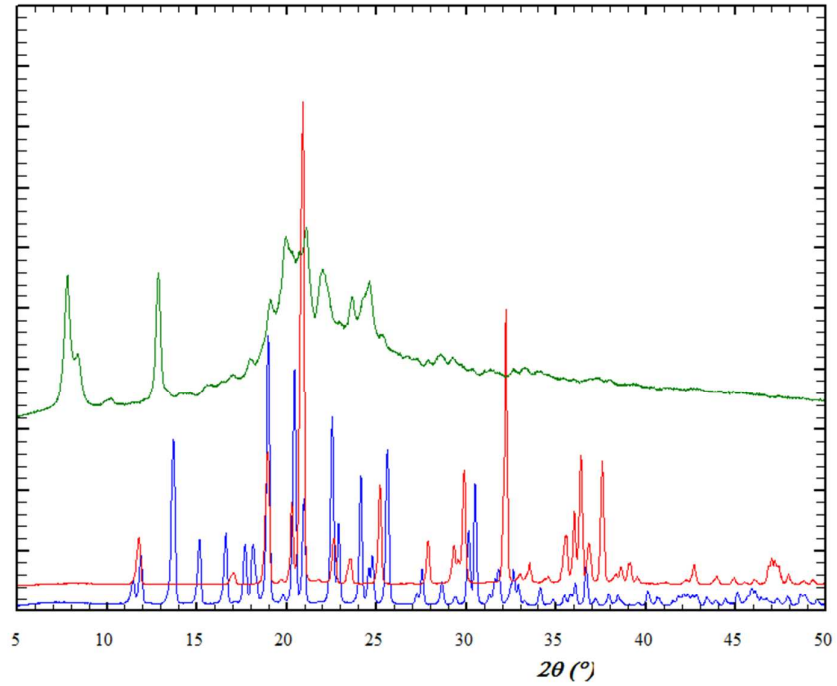


Figure S1: PXRD pattern of AMX (Blue), D(-)Tartaric acid (Red), AMX-D(-)Tartaric acid salt (Green)

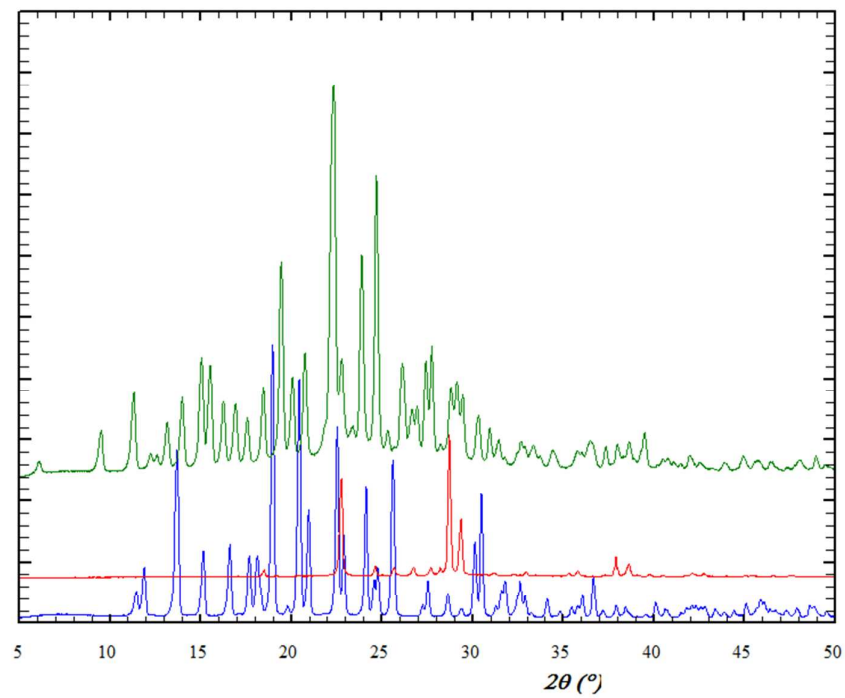


Figure S2: PXRD pattern of AMX (Blue), Fumaric acid (Red), AMX-Fumaric acid salt (Green)

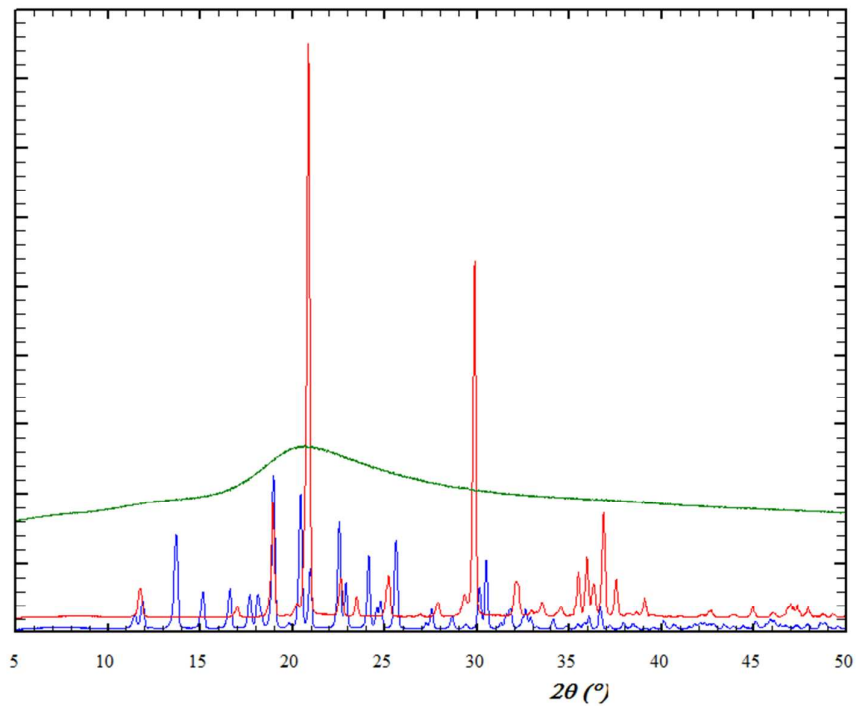


Figure S3: PXRD pattern of AMX (Blue), D(+)-Tartaric acid (Red), AMX-D(+)-Tartaric acid salt (Green)

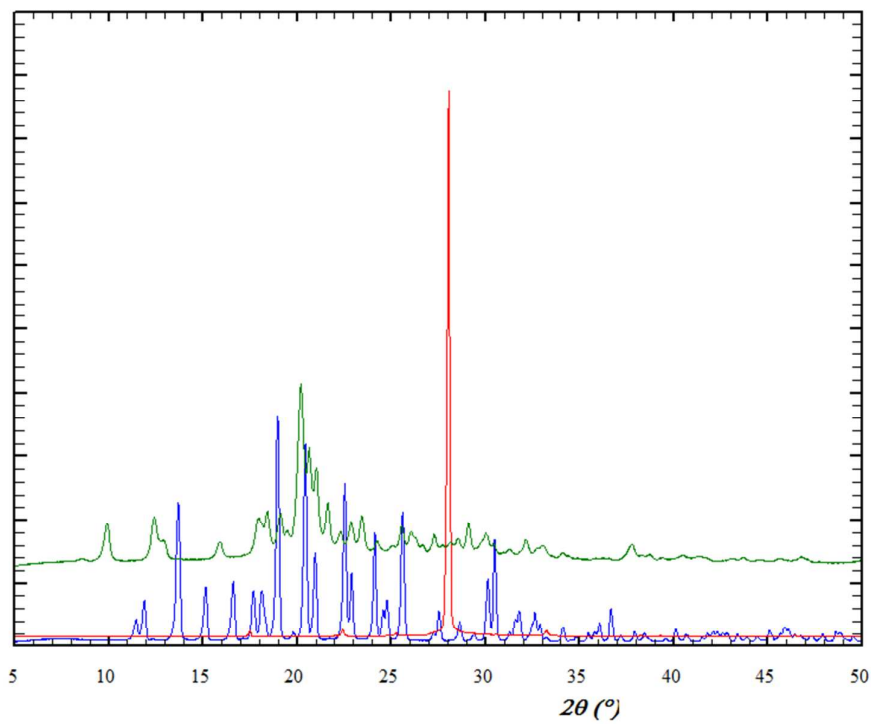


Figure S4: PXRD pattern of AMX (Blue), Maleic acid (Red), AMX-Maleic acid salt (Green)

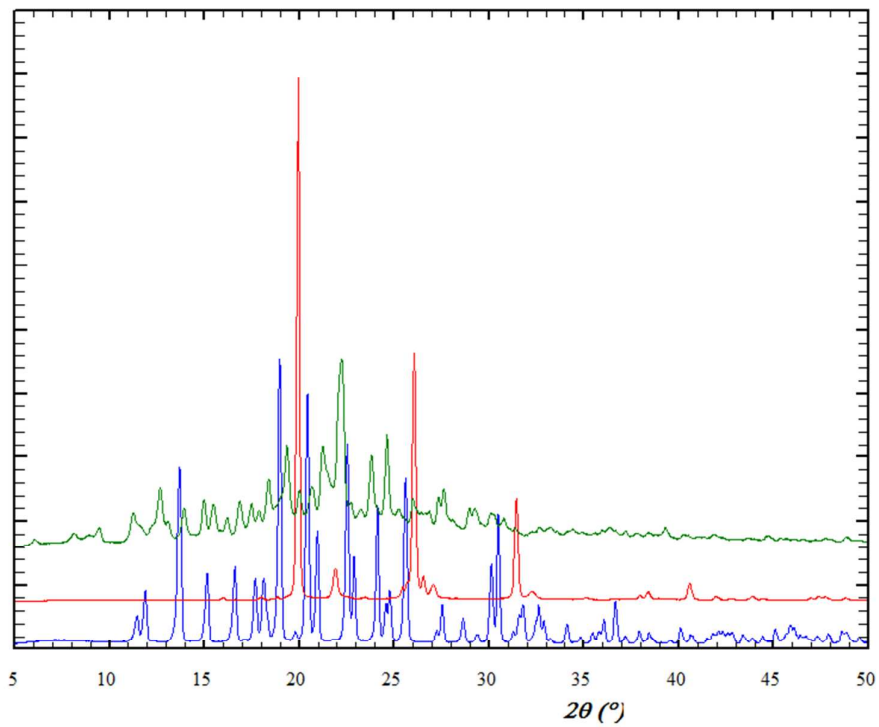


Figure S5: PXRD pattern of AMX (Blue), Succinic acid (Red), AMX-Succinic acid salt (Green)

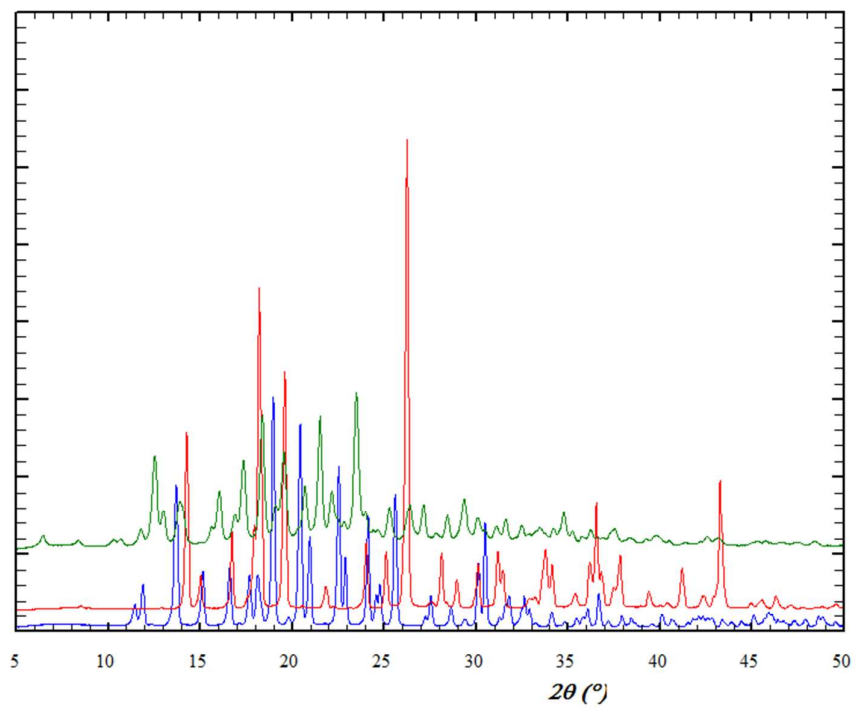


Figure S6: PXRD pattern of AMX (Blue), Citric acid (Red), AMX-Citric acid salt (Green)

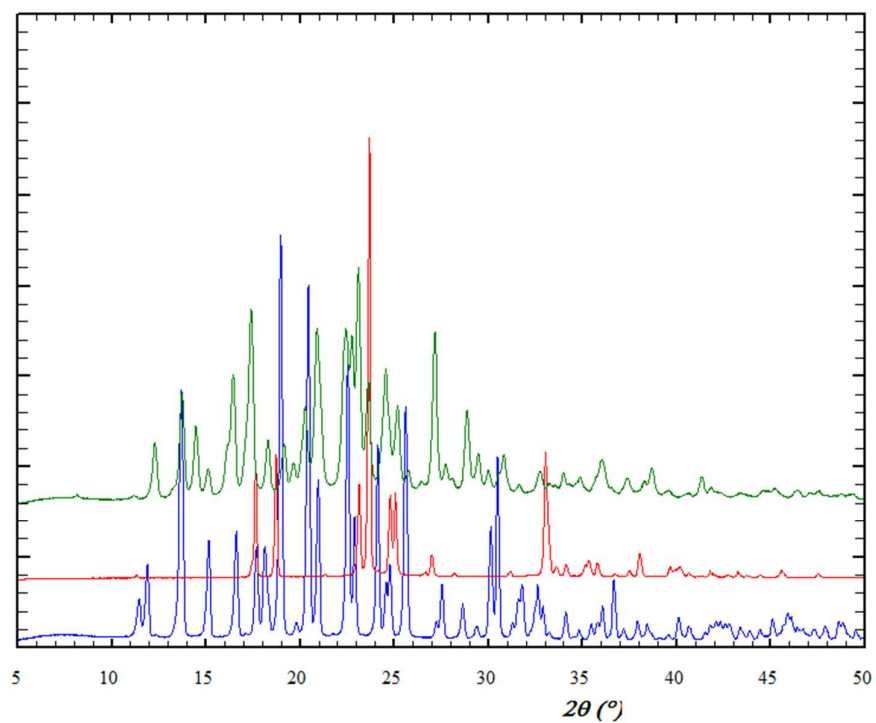


Figure S7: PXRD pattern of AMX (Blue), Malonic acid (Red), AMX-Malonic acid salt (Green)

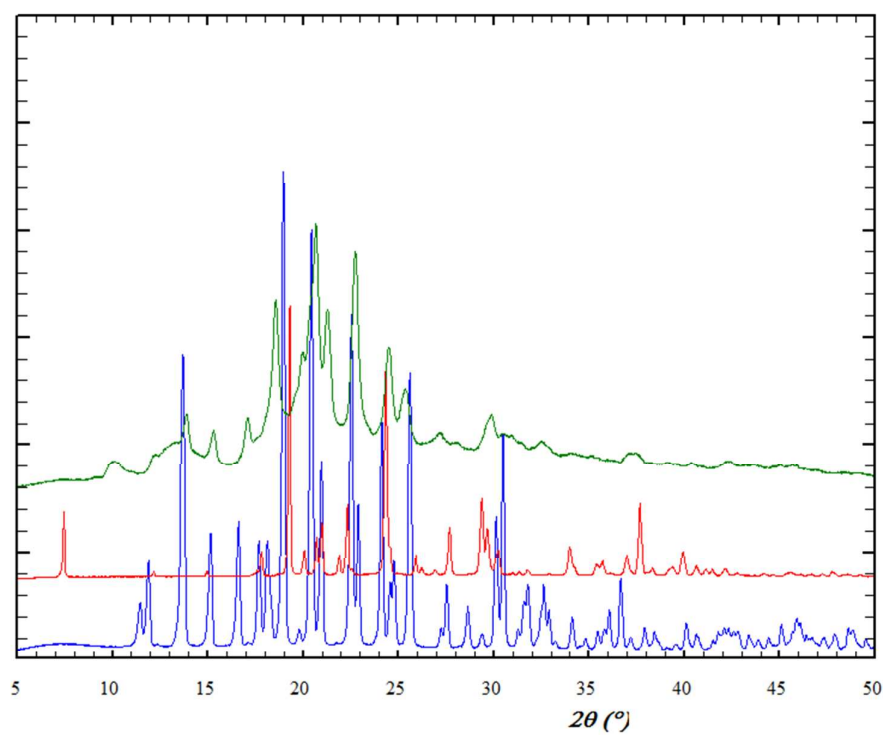


Figure S8: PXRD pattern of AMX (Blue), L-Malic acid (Red), AMX-L-Malic acid salt (Green)

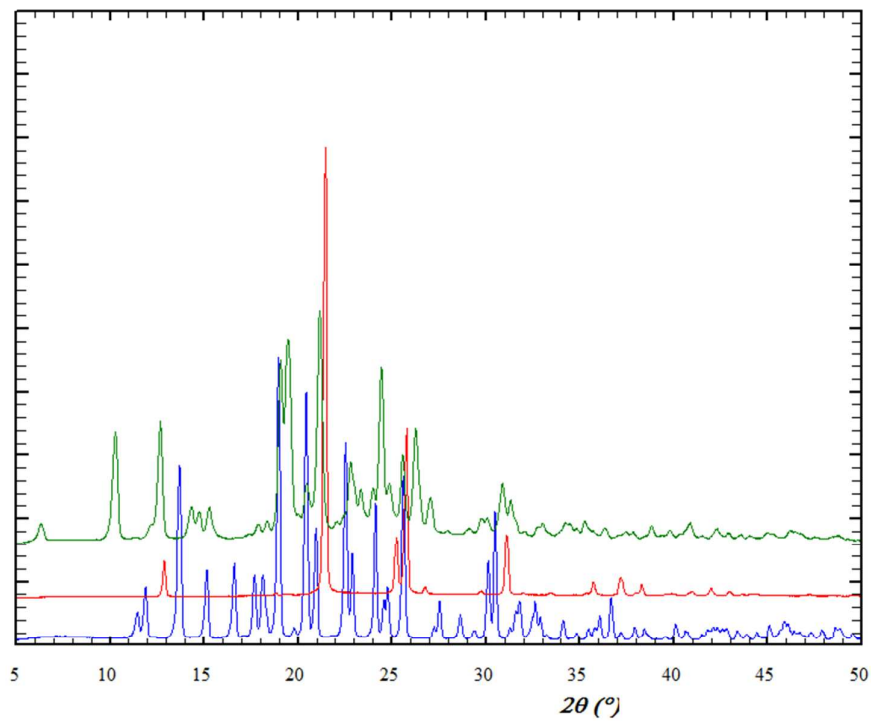


Figure S9: PXRD pattern of AMX (Blue), Adipic acid (Red), AMX-Adipic acid salt (Green)

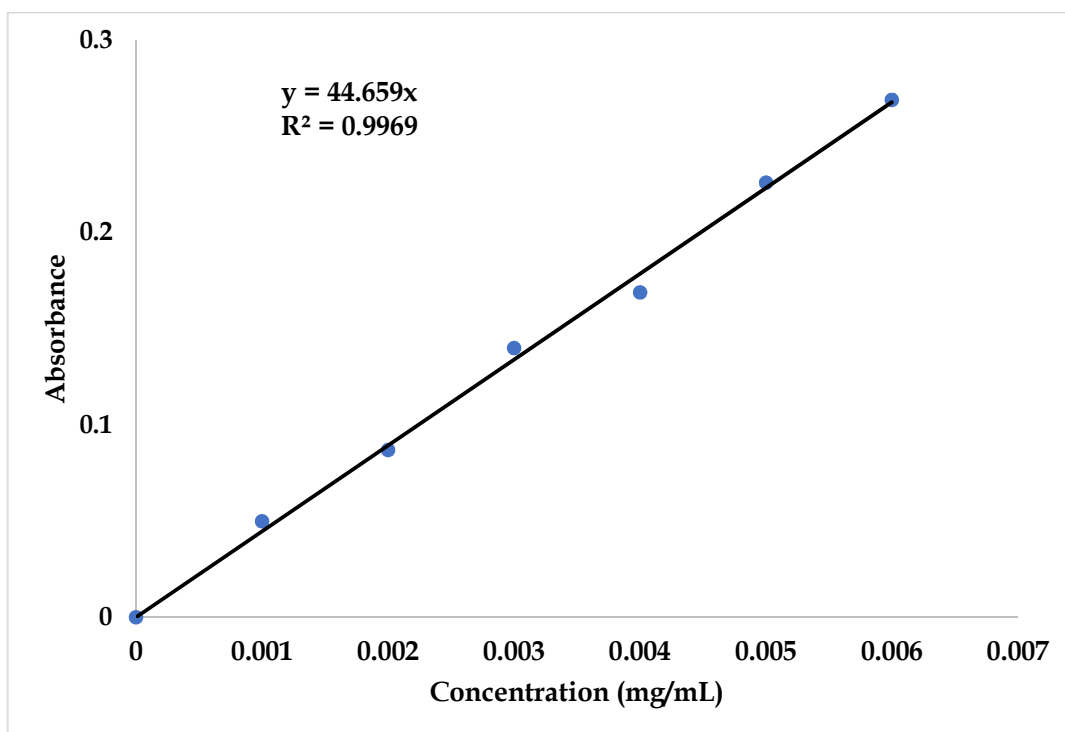


Figure S10: Calibration curve of AMX in water at 209 nm wavelength

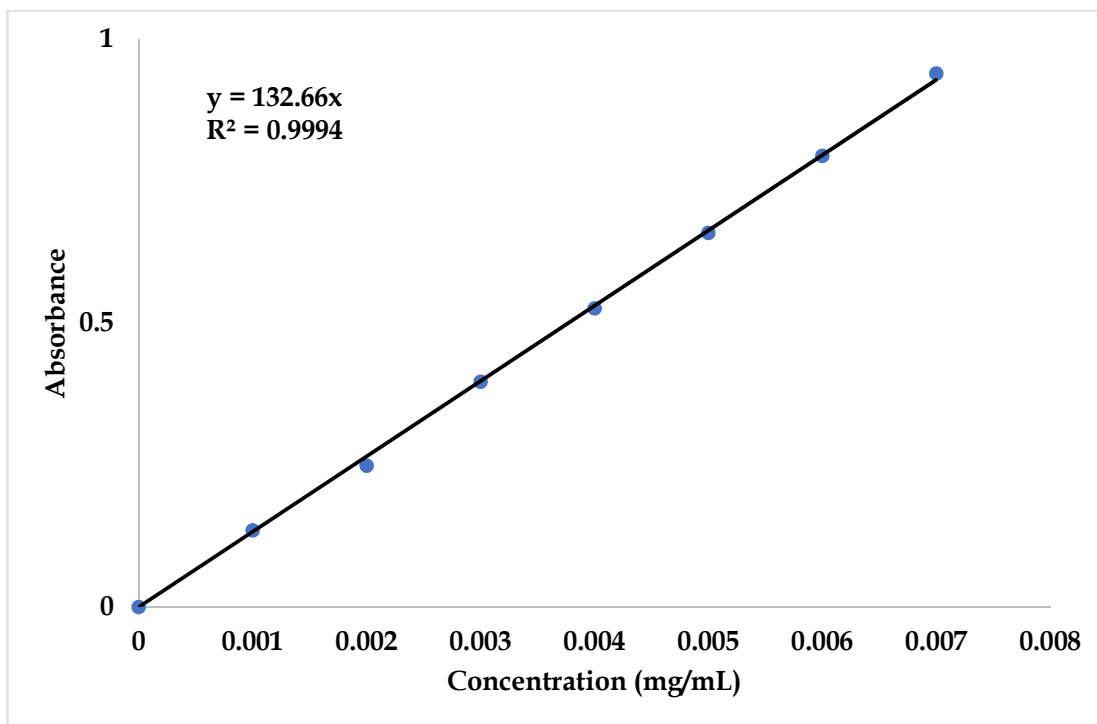


Figure S11: Calibration curve of AMX- D(-)Tartaric acid salt in water at 209 nm wavelength

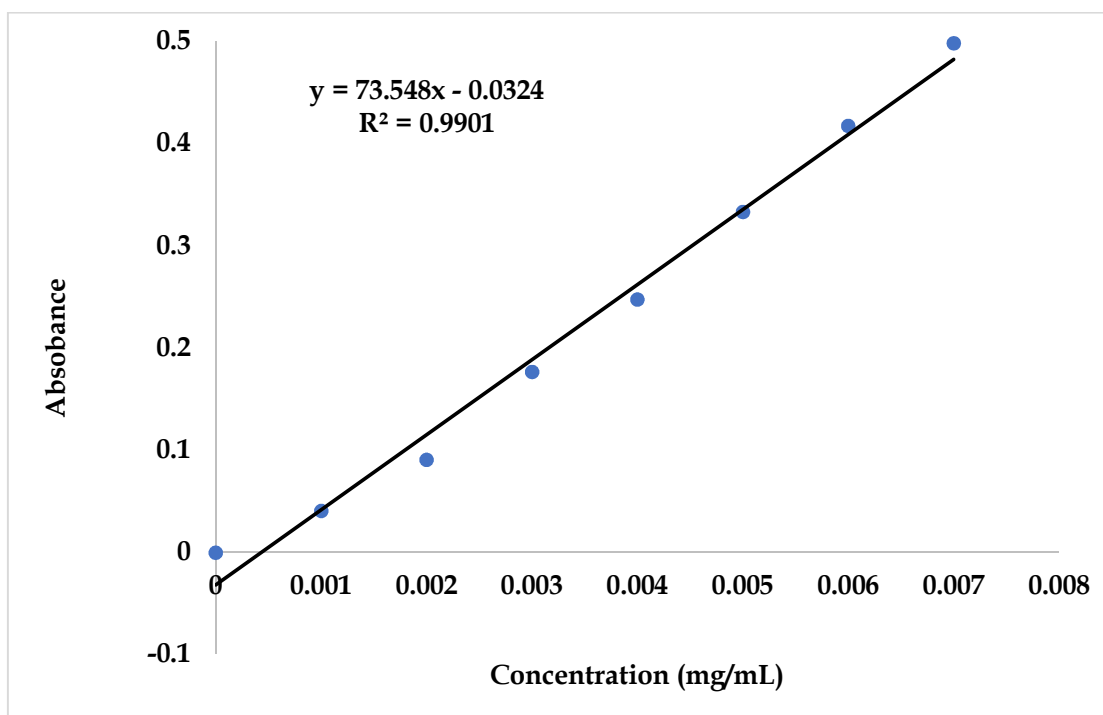


Figure S12: Calibration curve of AMX- Fumaric acid salt in water at 209 nm wavelength

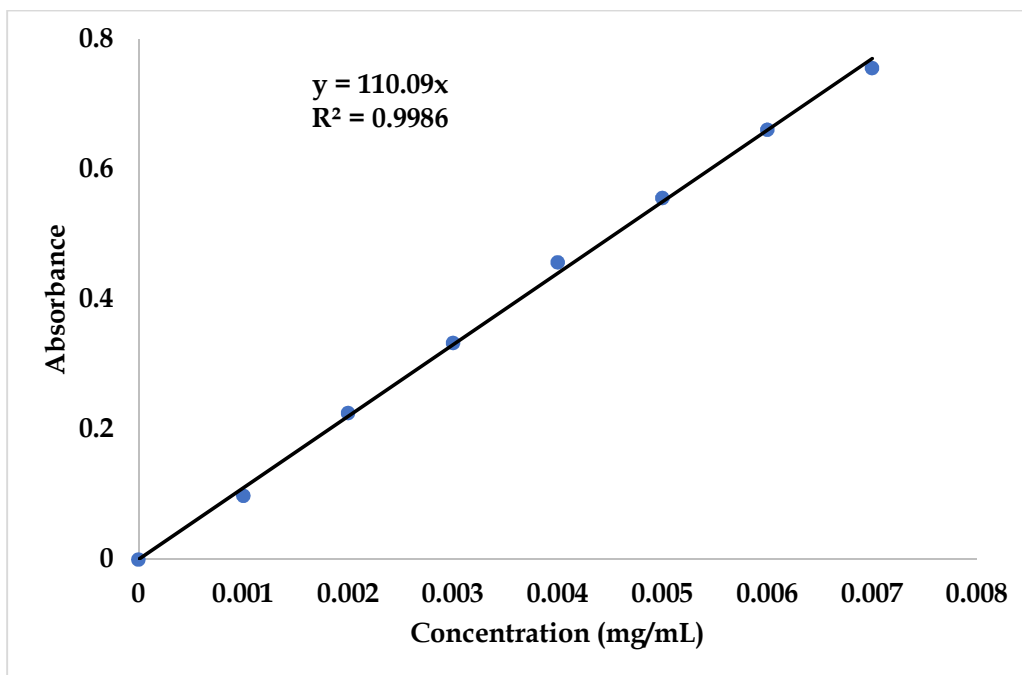


Figure S13: Calibration curve of AMX- D(+)-Tartaric acid salt in water at 209 nm wavelength

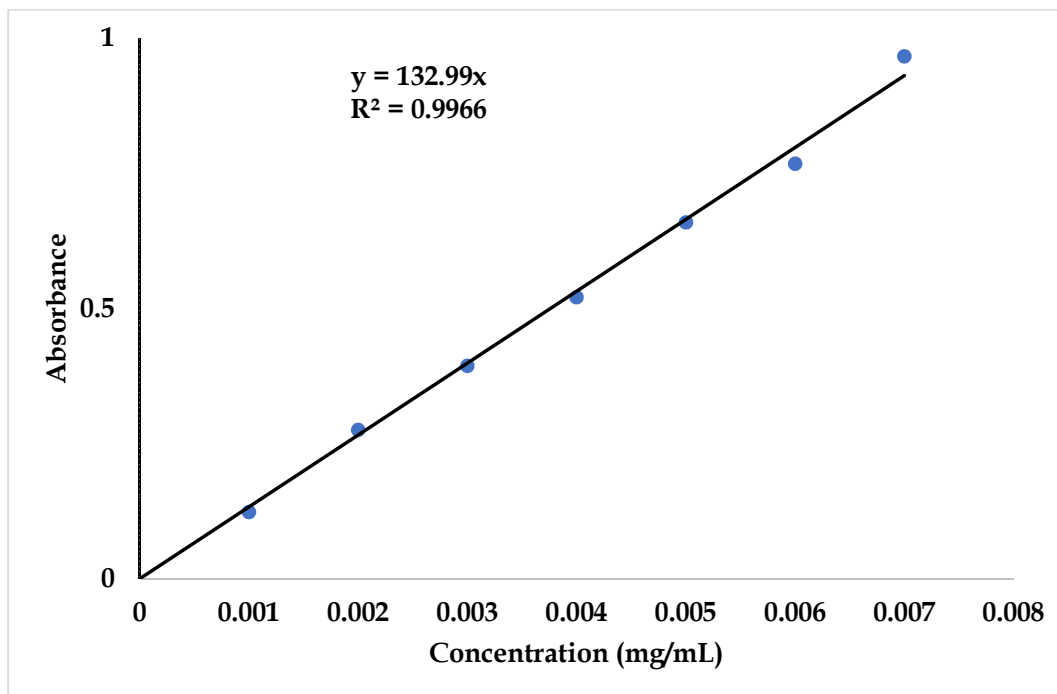


Figure S14: Calibration curve of AMX- Maleic acid salt in water at 209 nm wavelength



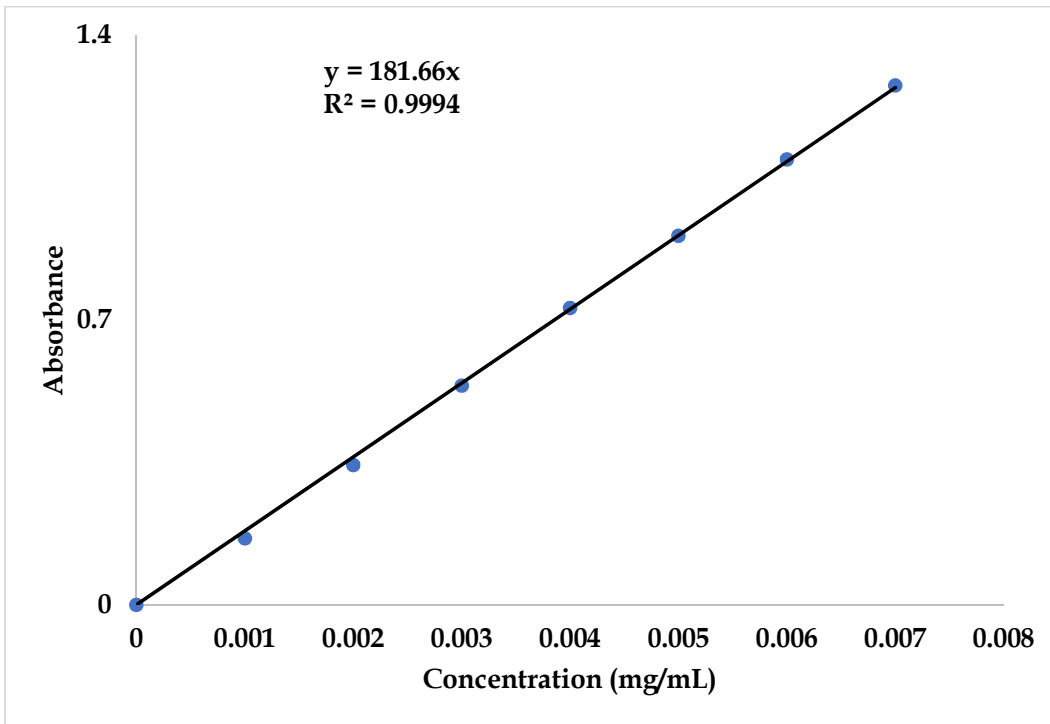


Figure S15: Calibration curve of AMX- Succinic acid salt in water at 209 nm wavelength

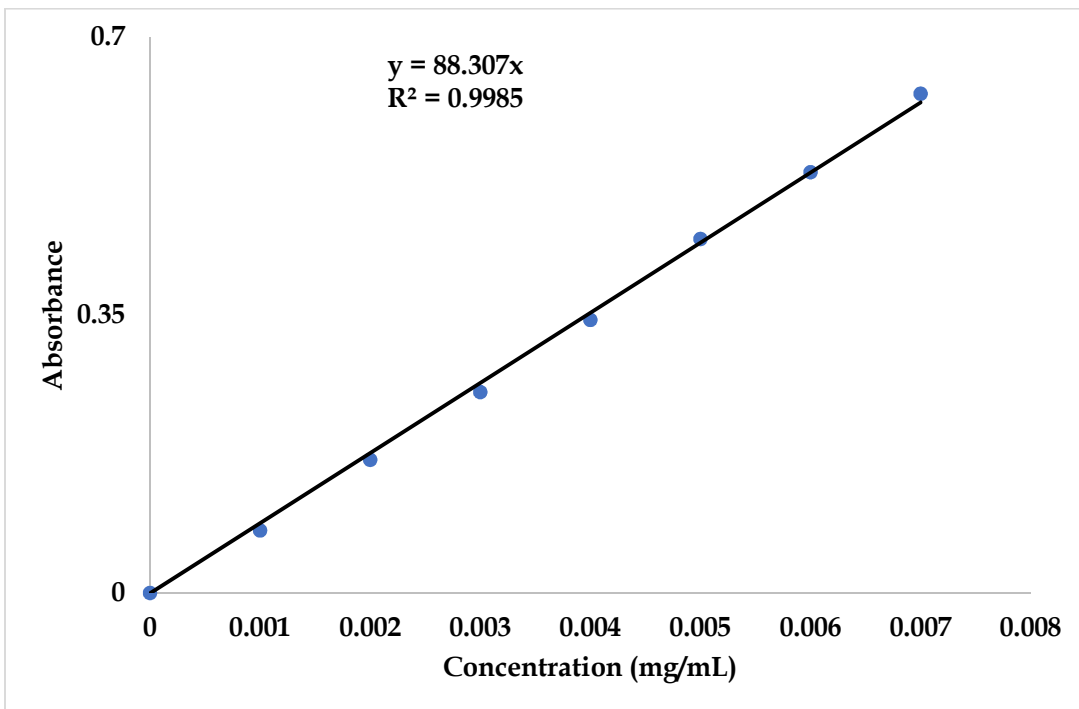


Figure S16: Calibration curve of AMX- Citric acid salt in water at 209 nm wavelength

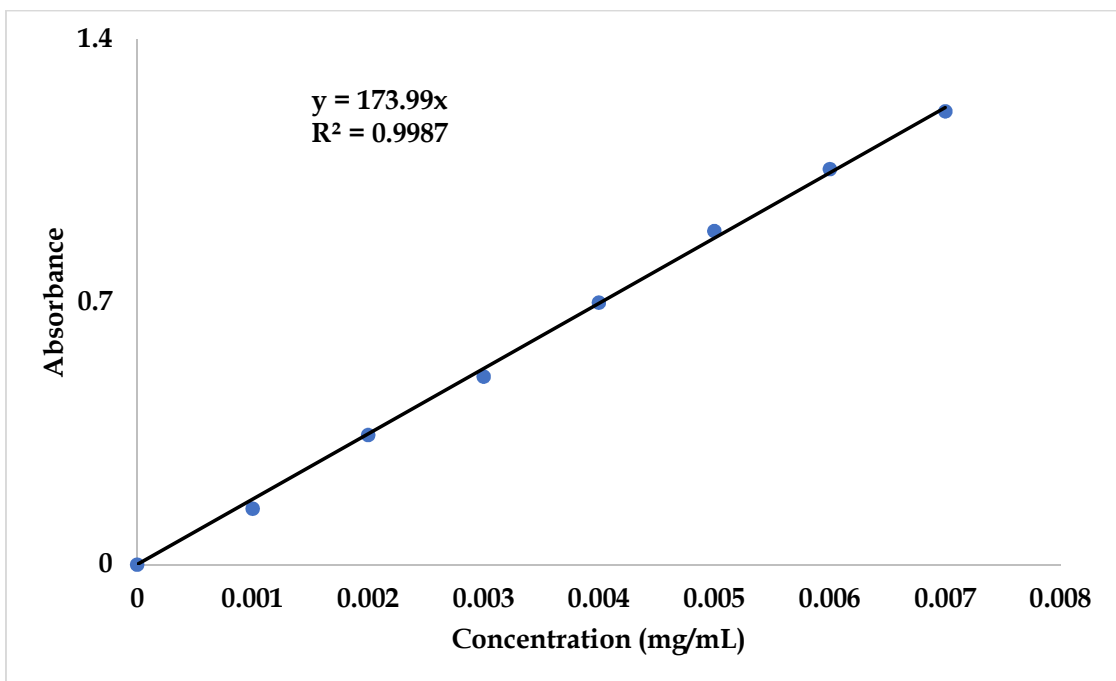


Figure S17: Calibration curve of AMX- Malonic acid salt in water at 209 nm wavelength

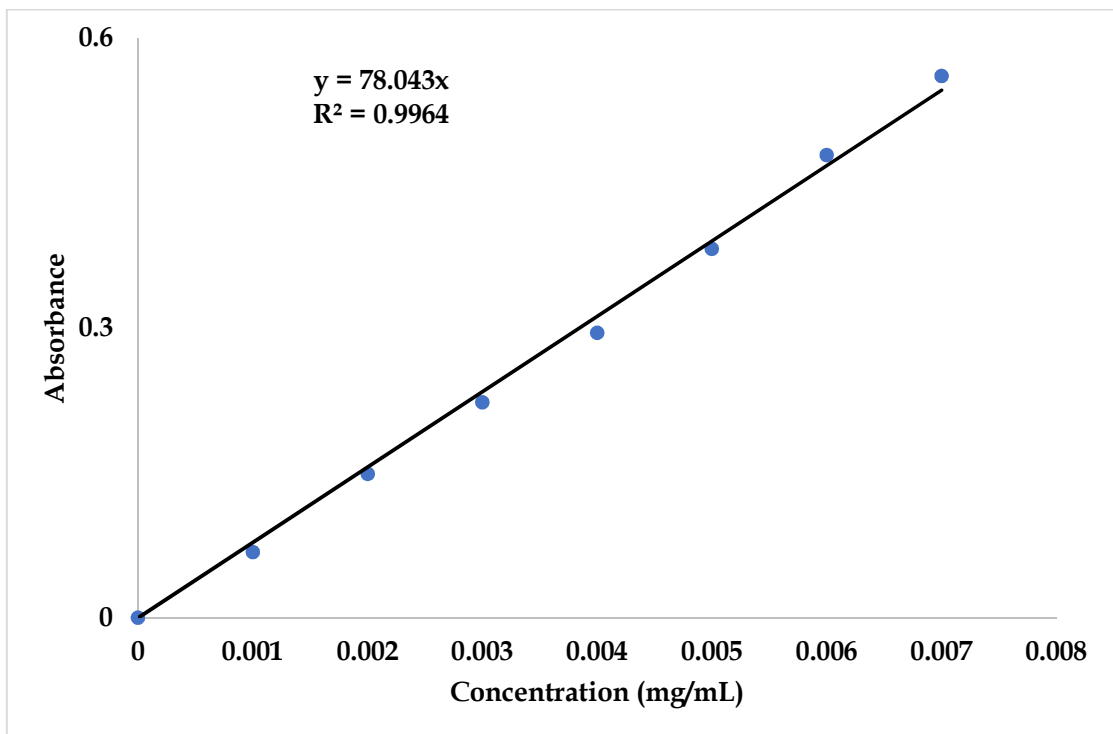


Figure S18: Calibration curve of AMX- L-Malic acid salt in water at 209 nm wavelength

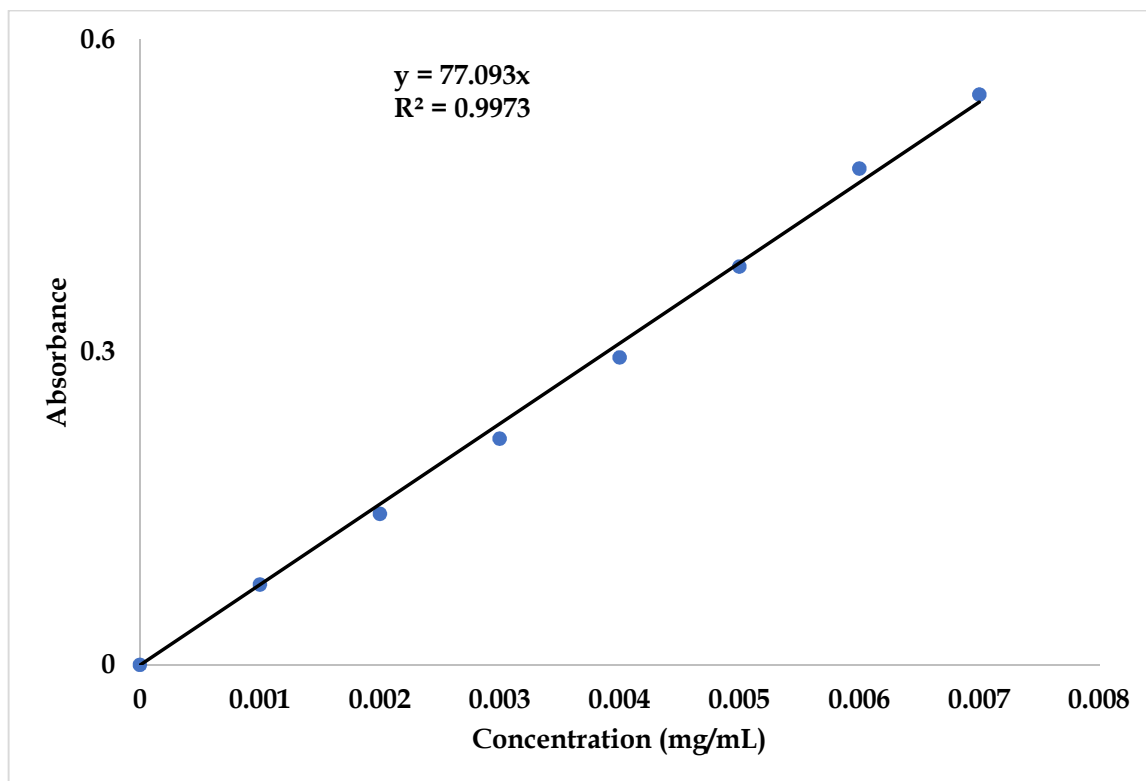


Figure S19: Calibration curve of AMX- Adipic acid salt in water at 209 nm wavelength

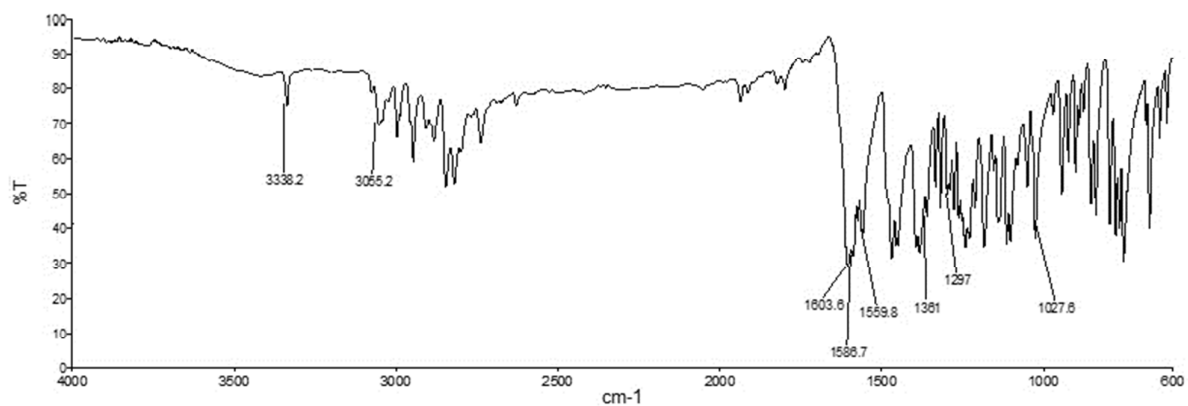


Figure S20: FTIR pattern of AMX

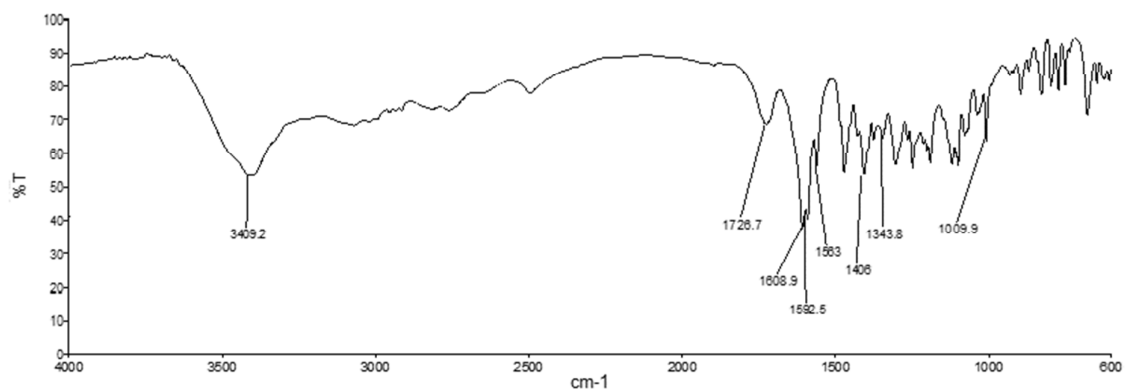


Figure S21: FTIR pattern of AMX- D(-)Tartaric acid salt

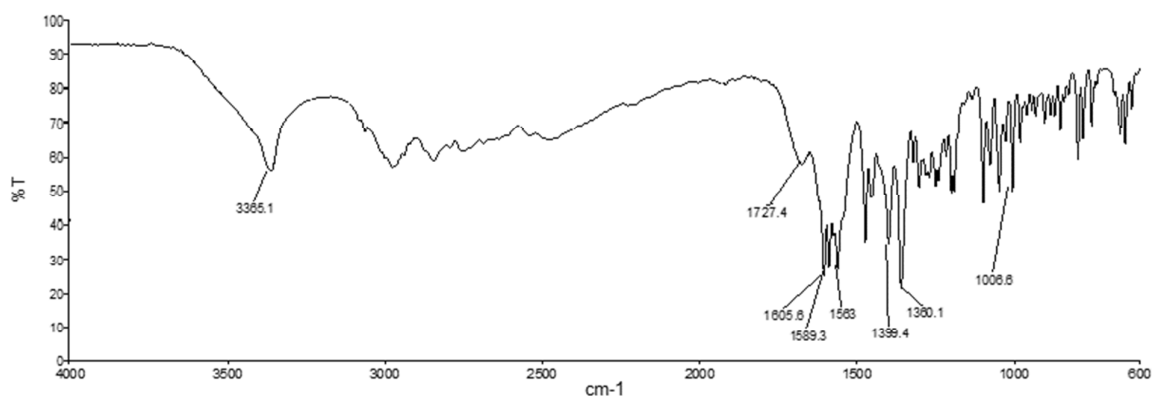


Figure S22: FTIR pattern of AMX- Fumaric acid salt

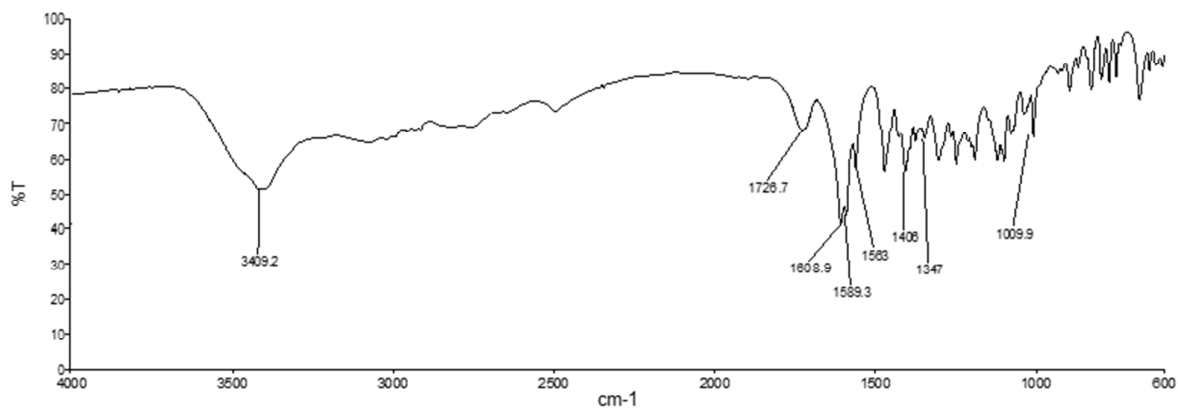


Figure S23: FTIR pattern of AMX- D(+)Tartaric acid salt

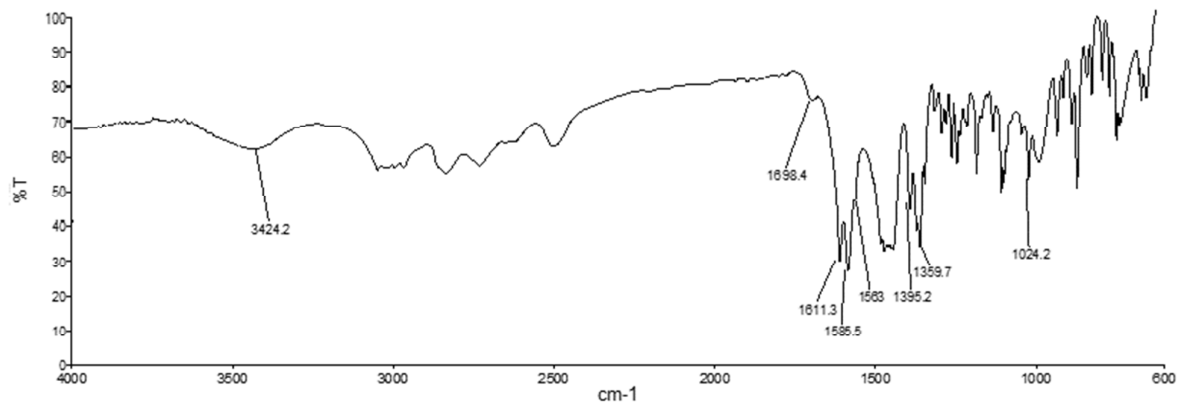


Figure S24: FTIR pattern of AMX- Maleic acid salt

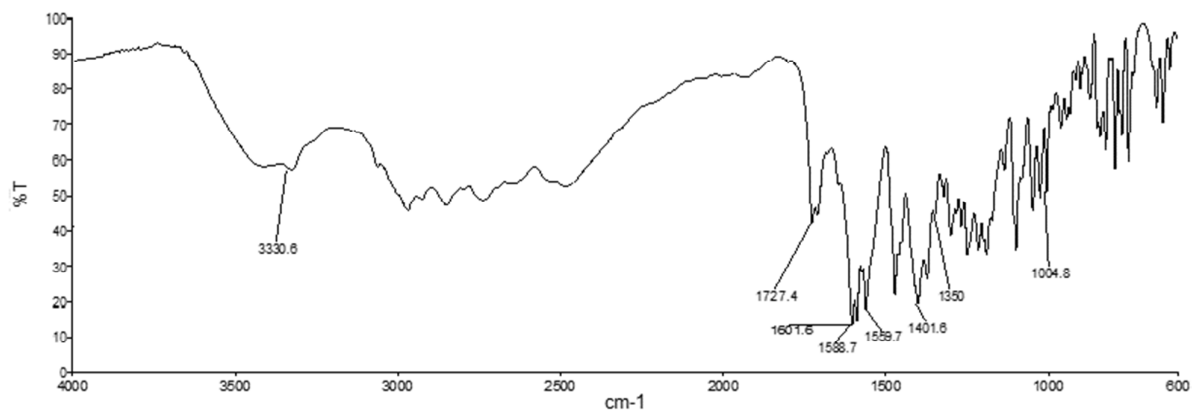


Figure S25: FTIR pattern of AMX- Succinic acid salt

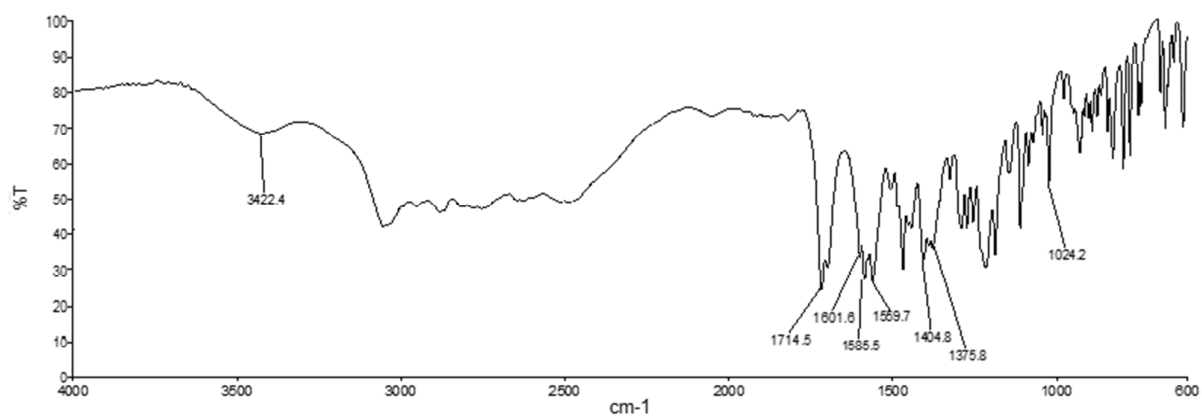


Figure S26: FTIR pattern of AMX- Citric acid salt

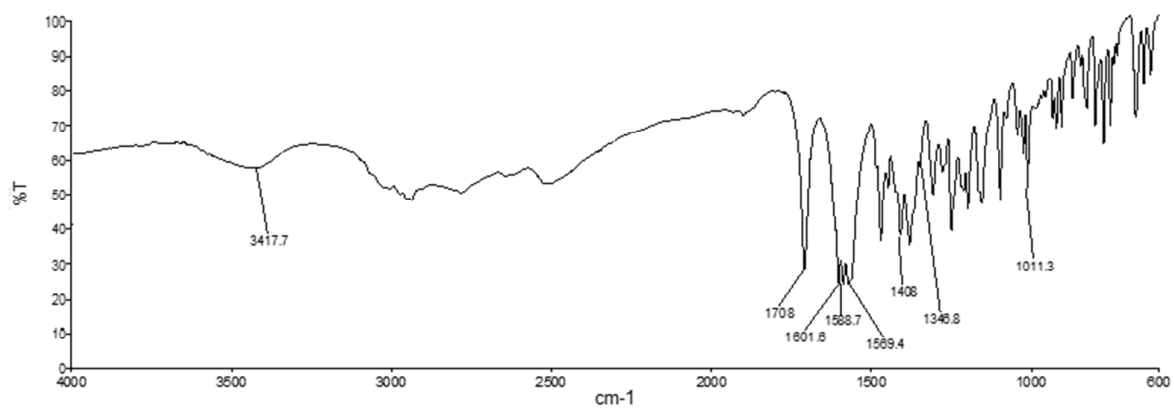


Figure S27: FTIR pattern of AMX- Malonic acid salt

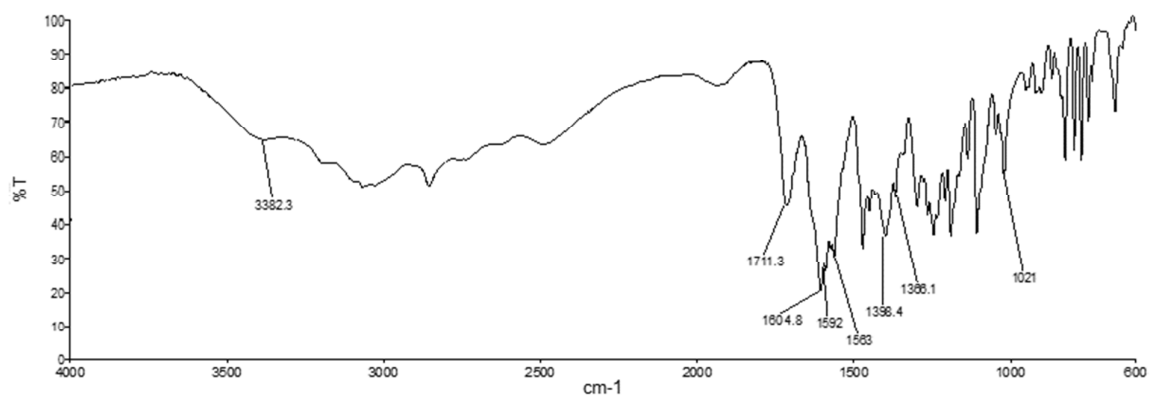


Figure S28: FTIR pattern of AMX- L-Malic acid salt

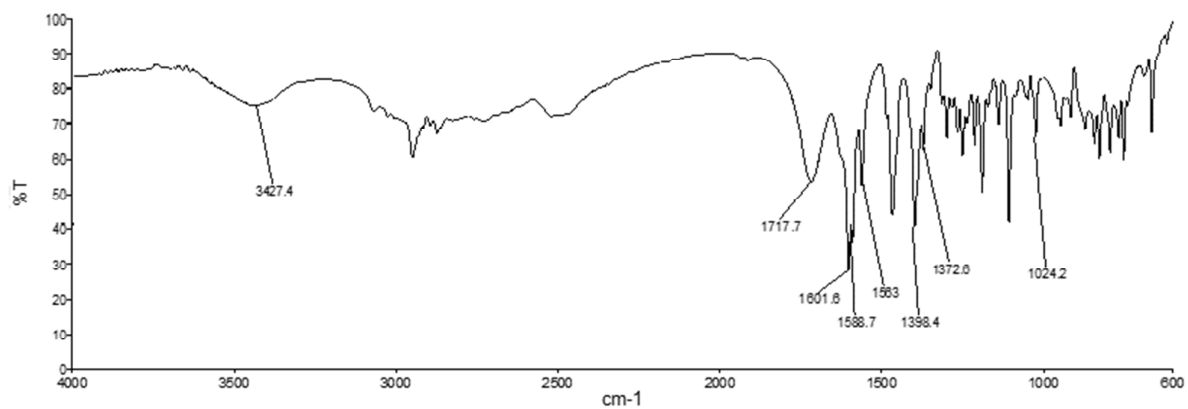


Figure S29: FTIR pattern of AMX- Adipic acid salt

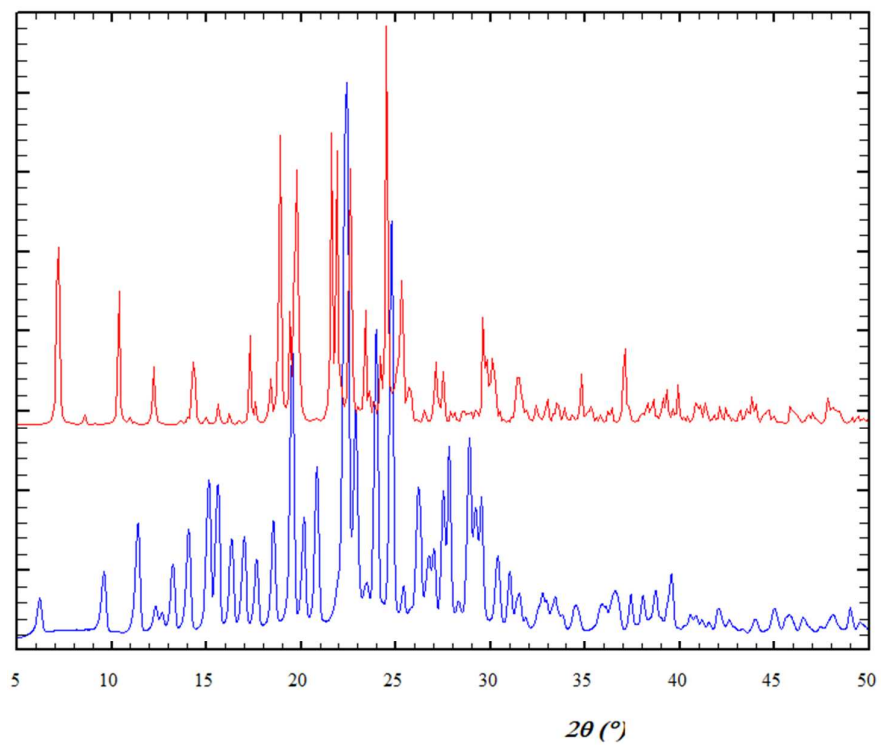


Figure S30: PXRD pattern of AMX-Fumaric acid (Blue), Simulated powder pattern of AMX-Fumaric acid (Red)

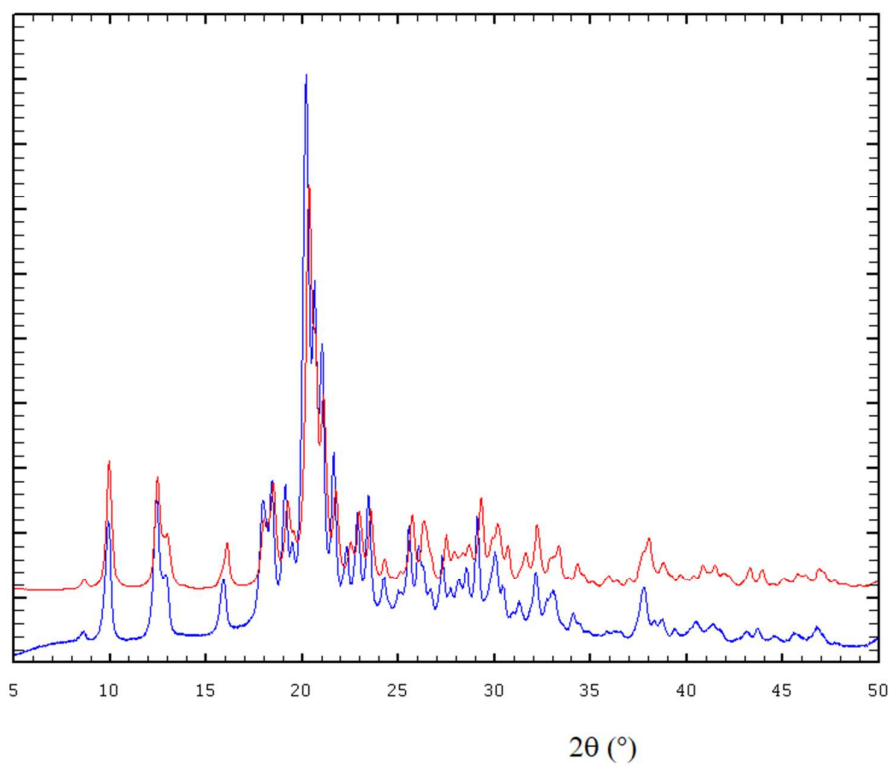


Figure S31: PXRD pattern of AMX-Maleic acid (Blue), Simulated powder pattern of AMX-Maleic acid (Red)

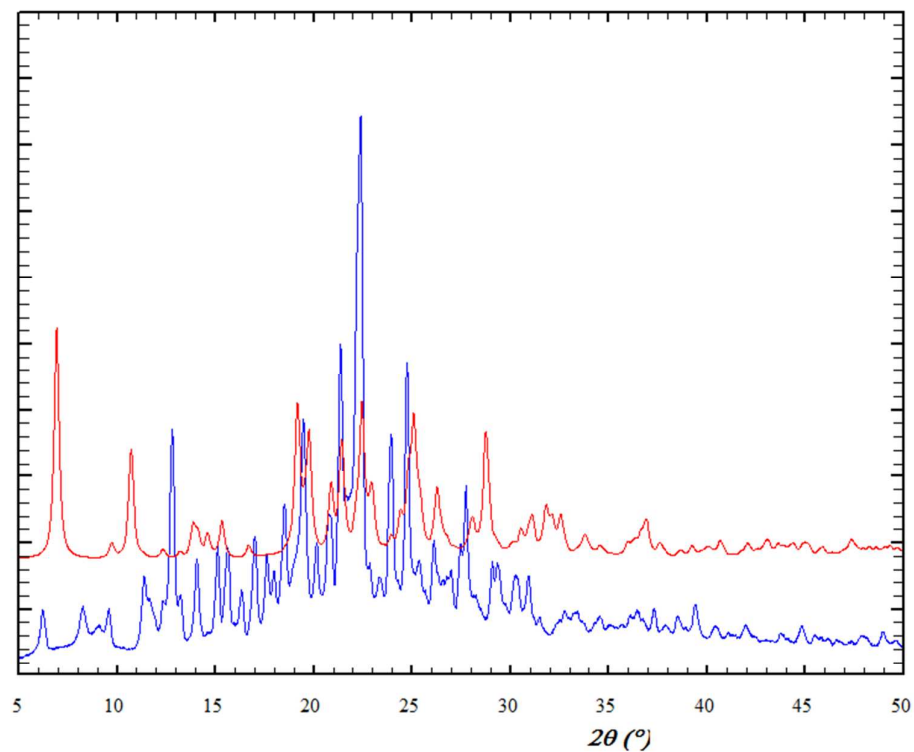


Figure S32: PXRD pattern of AMX-Succinic acid (Blue), Simulated powder pattern of AMX-Succinic acid (Red)

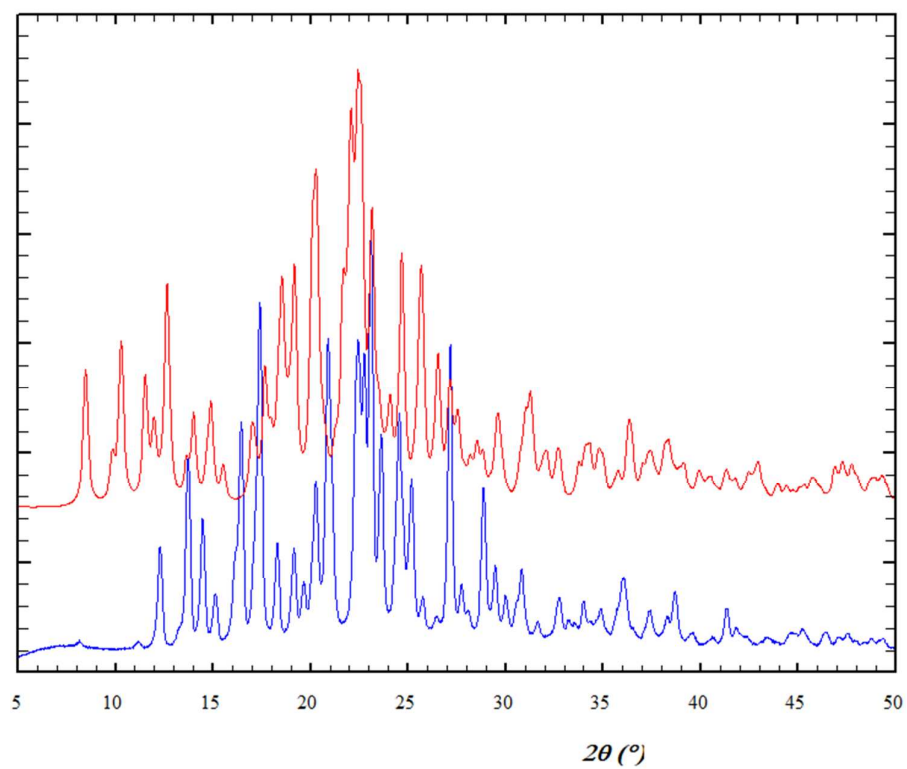


Figure S33: PXRD pattern of AMX-Malonic acid (Blue), Simulated powder pattern of AMX-Malonic acid (Red)



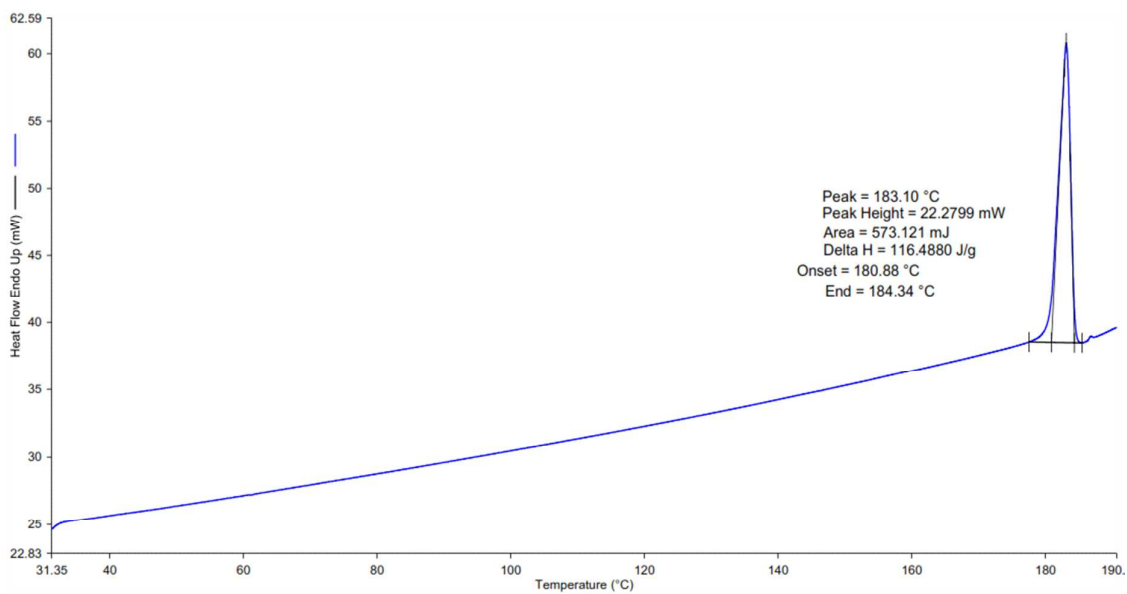


Figure S34: DSC thermogram of AMX

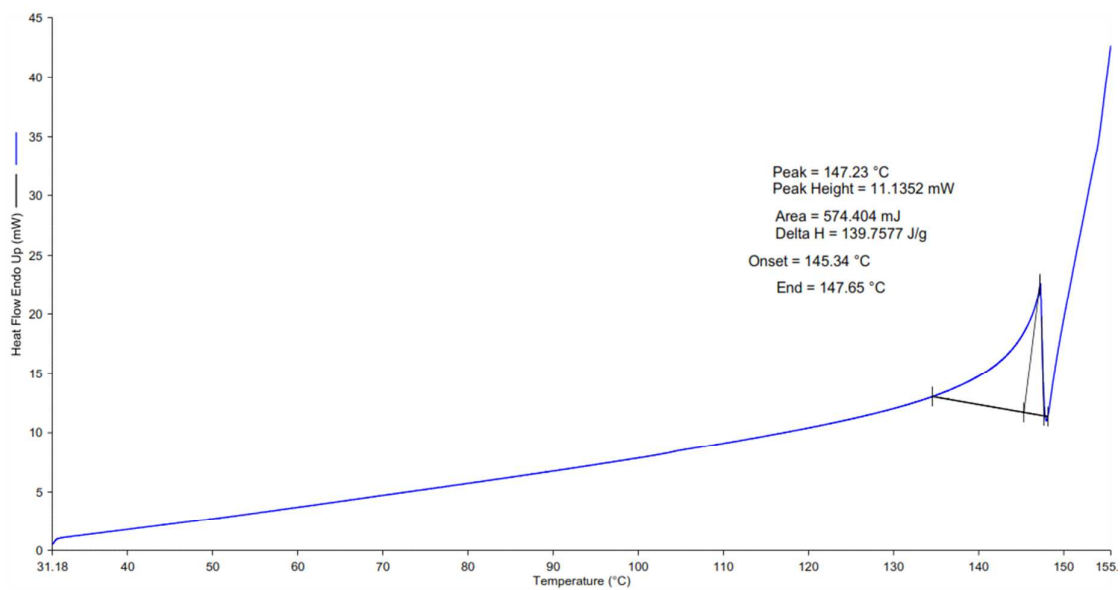


Figure S35: DSC thermogram of AMX salt with D(-)-Tartaric acid

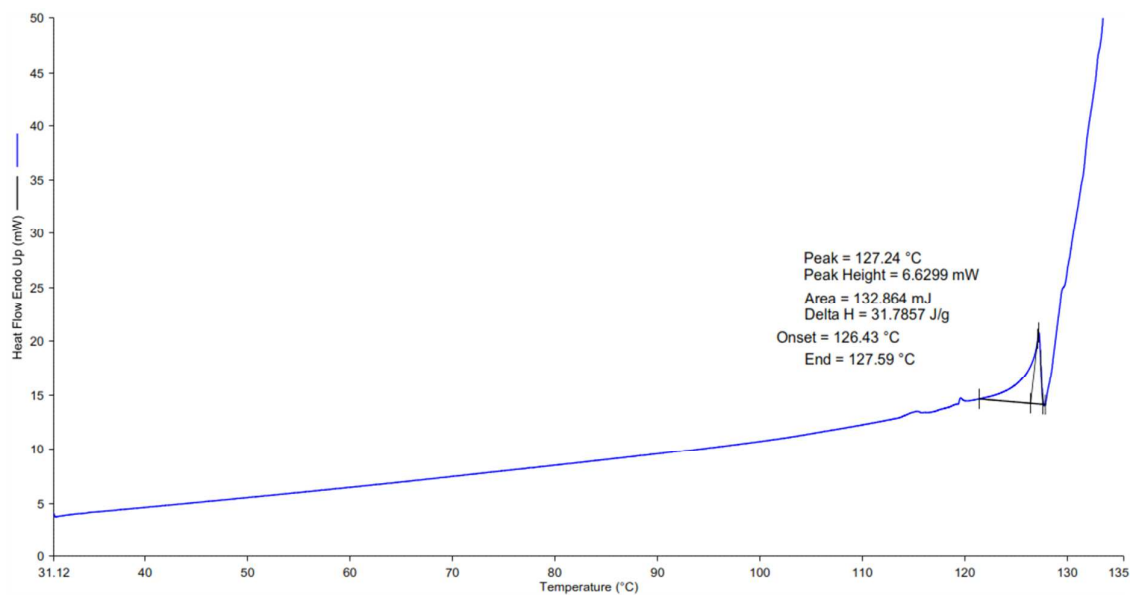


Figure S36: DSC thermogram of AMX salt with Fumaric acid

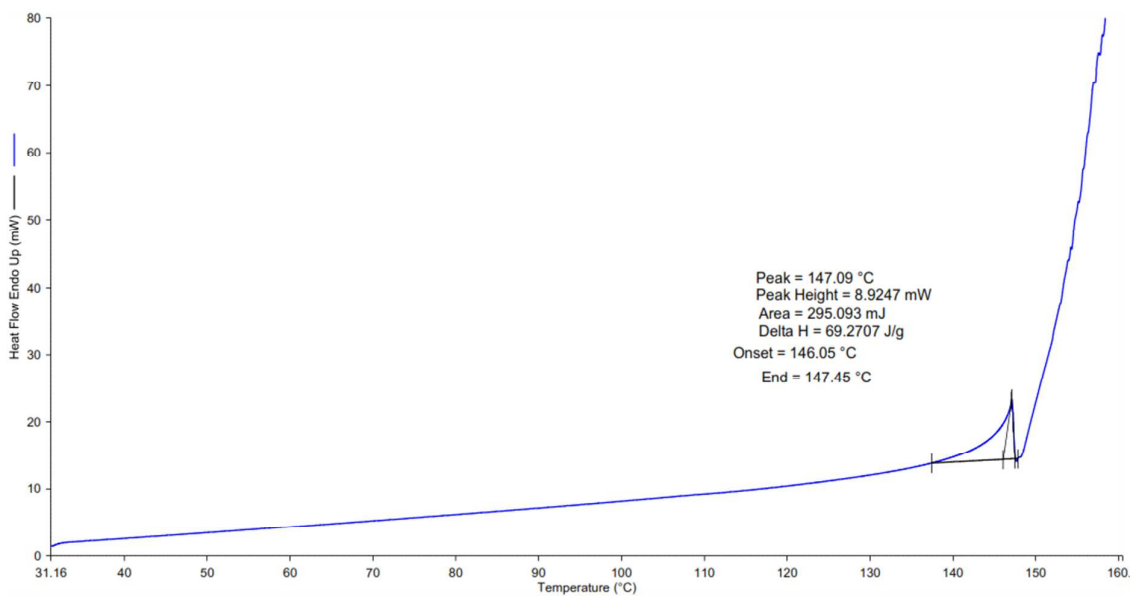


Figure S37: DSC thermogram of AMX salt with D(+) Tartaric acid

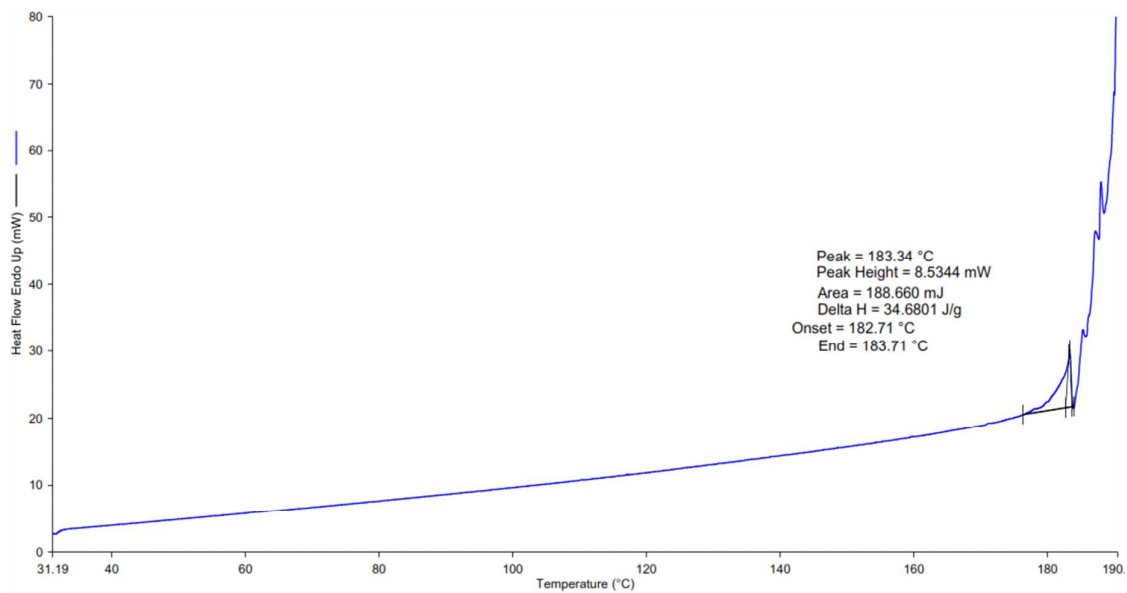


Figure S38: DSC thermogram of AMX salt with Maleic acid

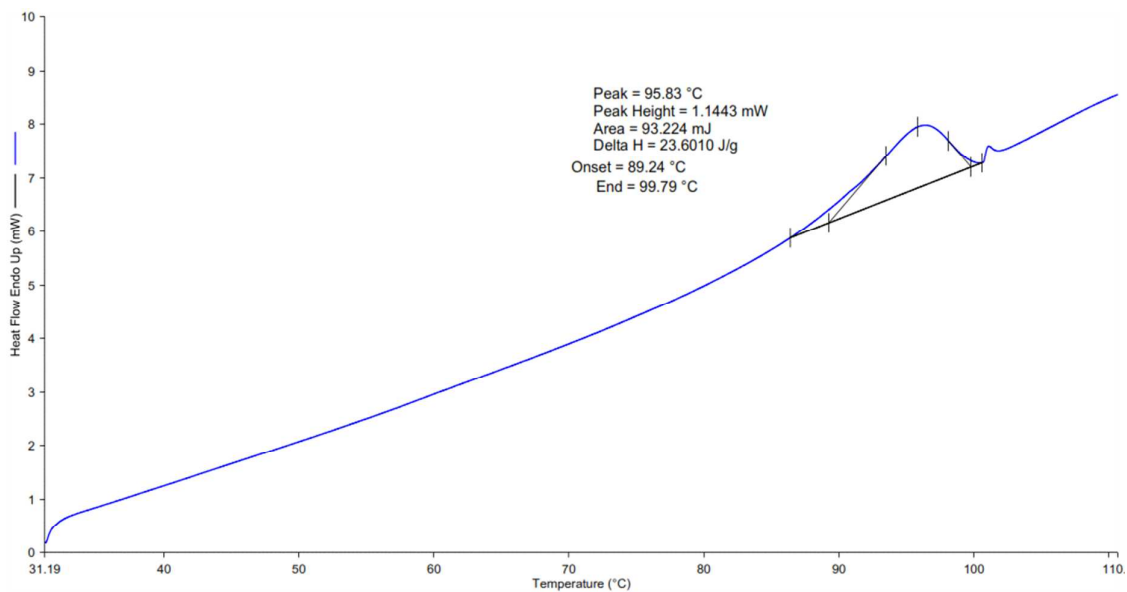


Figure S39: DSC thermogram of AMX salt with Succinic acid

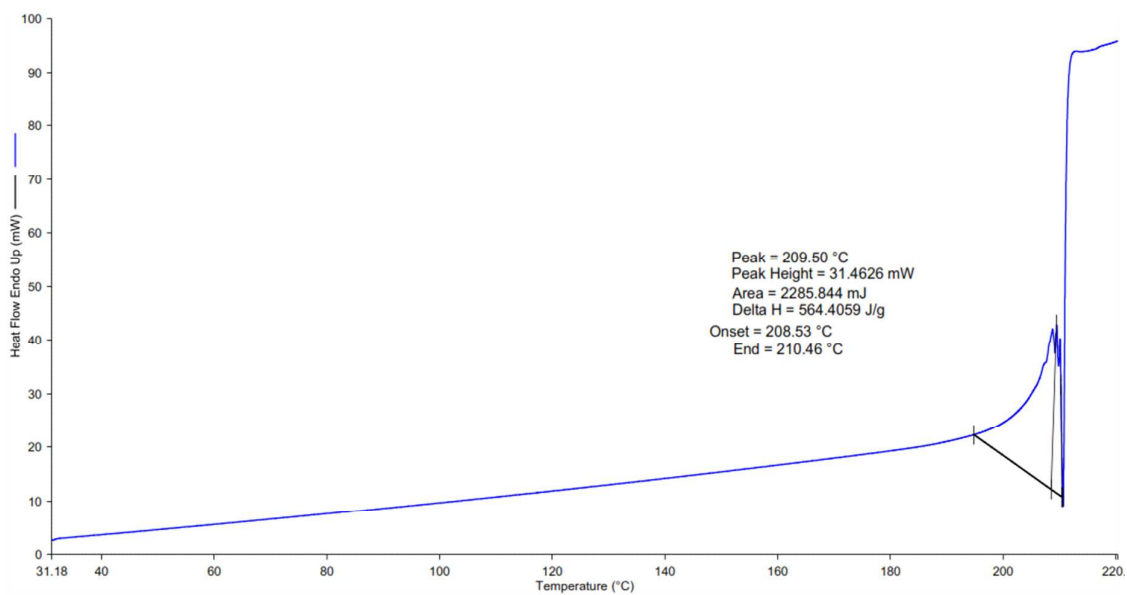


Figure S40: DSC thermogram of AMX salt with Citric acid

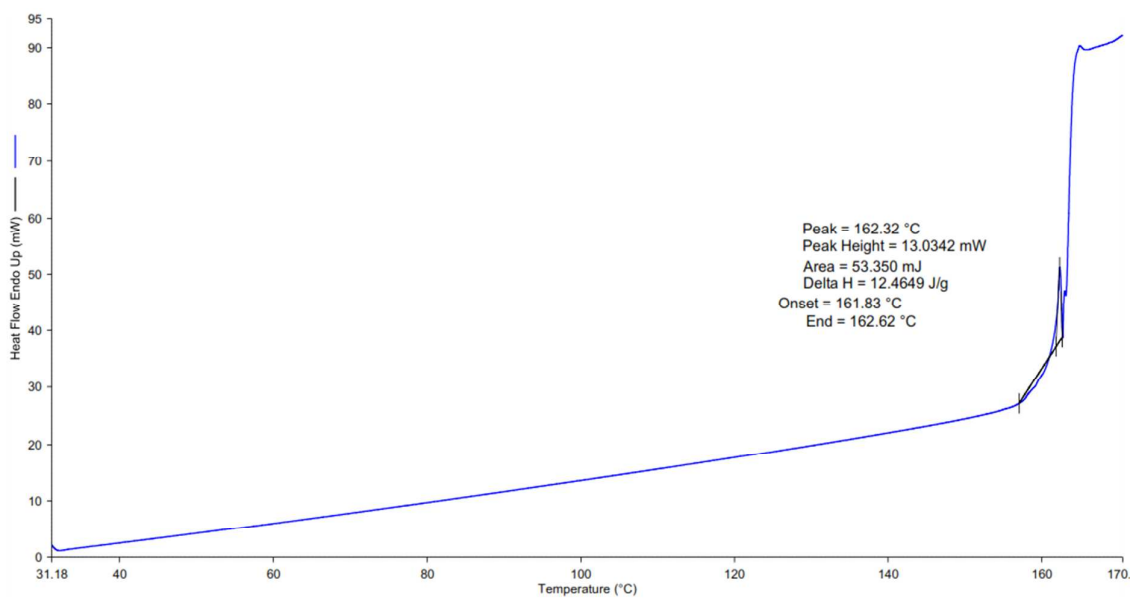


Figure S41: DSC thermogram of AMX salt with Malonic acid

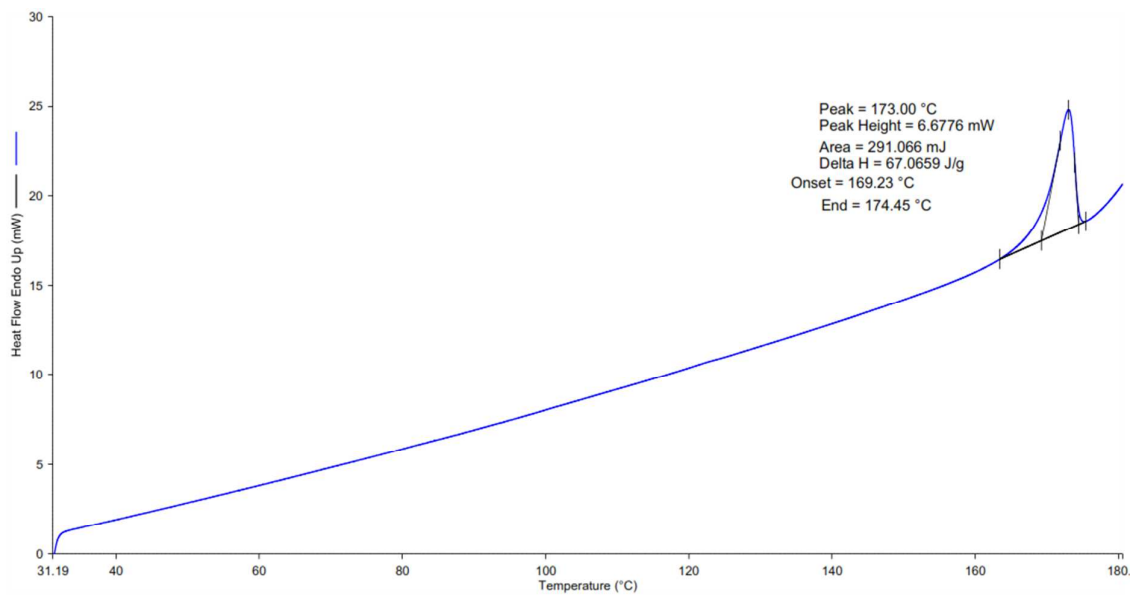


Figure S42: DSC thermogram of AMX salt with L-Malic acid

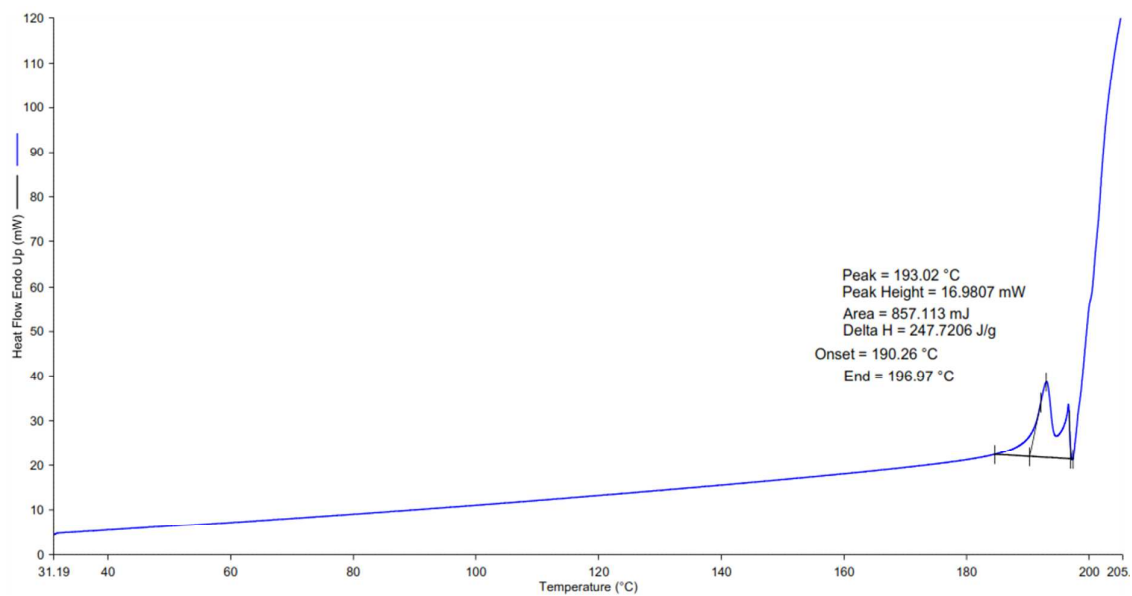


Figure S43: DSC thermogram of AMX salt with Adipic acid

**Table S1:** FT-IR data of AMX and its salts

<b>Compound</b>	<b>N-H stretch cm<sup>-1</sup></b>	<b>N-H bend cm<sup>-1</sup></b>	<b>C-N cm<sup>-1</sup></b>	<b>COO- asymmetric cm<sup>-1</sup></b>	<b>COO- symmetric cm<sup>-1</sup></b>	<b>C=O stretch cm<sup>-1</sup></b>
AMX	3338.2	1603.6, 1559.8	1361.0, 1027.6			
AMX: D (-) tartaric acid	3409.2	1608.9, 1563.0	1343.8, 1009.9	1592.5	1406.0	1726.7
AMX: Fumaric acid	3365.1	1605.6, 1563.0	1360.1, 1006.6	1589.3	1399.4	1727.4
AMX: D (+) tartaric acid	3409.2	1608.9, 1563.0	1347.0, 1009.9	1589.3	1406.0	1726.7
AMX: Maleic acid	3424.2	1611.3, 1563.0	1359.7, 1024.2	1585.5	1395.2	1698.4
AMX: Succinic acid	3330.6	1601.6, 1559.7	1350.0, 1004.8	1588.7	1401.6	1727.4
AMX: Citric acid	3422.4	1601.6, 1559.7	1375.8, 1024.2	1585.5	1404.8	1714.5
AMX: Malonic acid	3417.7	1601.6, 1569.4	1346.8, 1011.3	1588.7	1406.0	1708.0
AMX: L-Malic acid	3382.3	1604.8, 1563.0	1366.1, 1021.0	1592.0	1398.4	1711.3
AMX: Adipic acid	3427.4	1601.6, 1563.0	1372.6, 1024.2	1588.7	1398.4	1717.7