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APPENDIXES

Table A1 The technical data of ozone generator 500M

Technical data	
Type	OZ 500 M
Cooling	Air cooling
Gas Supply	Oxygen resp. air
Recommended Operation Pressure	1.5 bar abs.
Max. Admissible Pressure	2 bar abs.
Throughput	0-50 l/h
Electrical Supply	220 V, 50 Hz, 60 VA
Fuse Protection	Mains supply 250 mA transformer 160 mA
High-voltage	Max. 7.5 kV
Frequency of Discharge	50 Hz
Ozone output	~0.5 g O ₃ /h in case of oxygen
Operation Temperature	0°-40°C
Dimensions (w x h x d)	365 x 165 x 350 mm

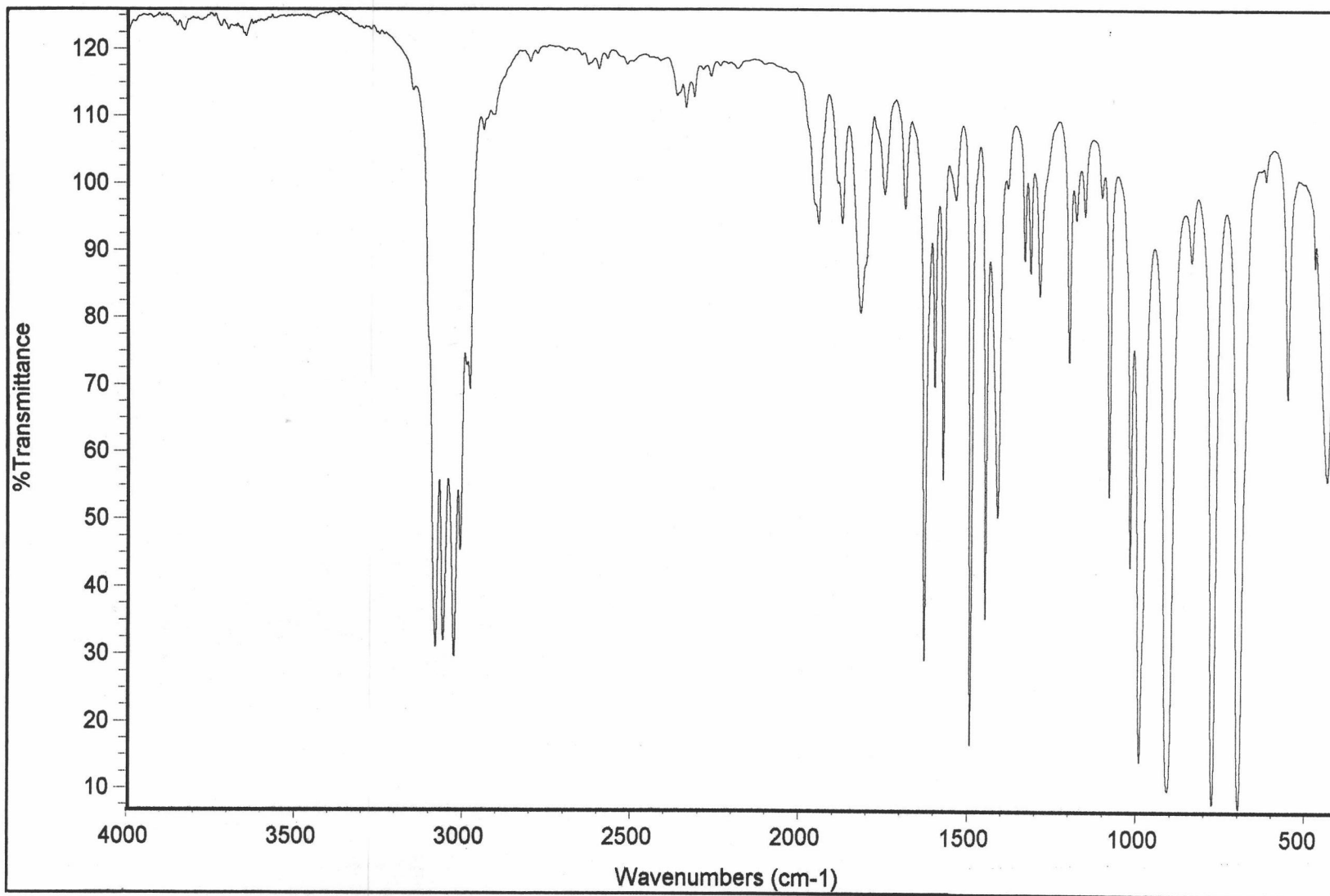


Figure A1 The infrared spectrum of styrene

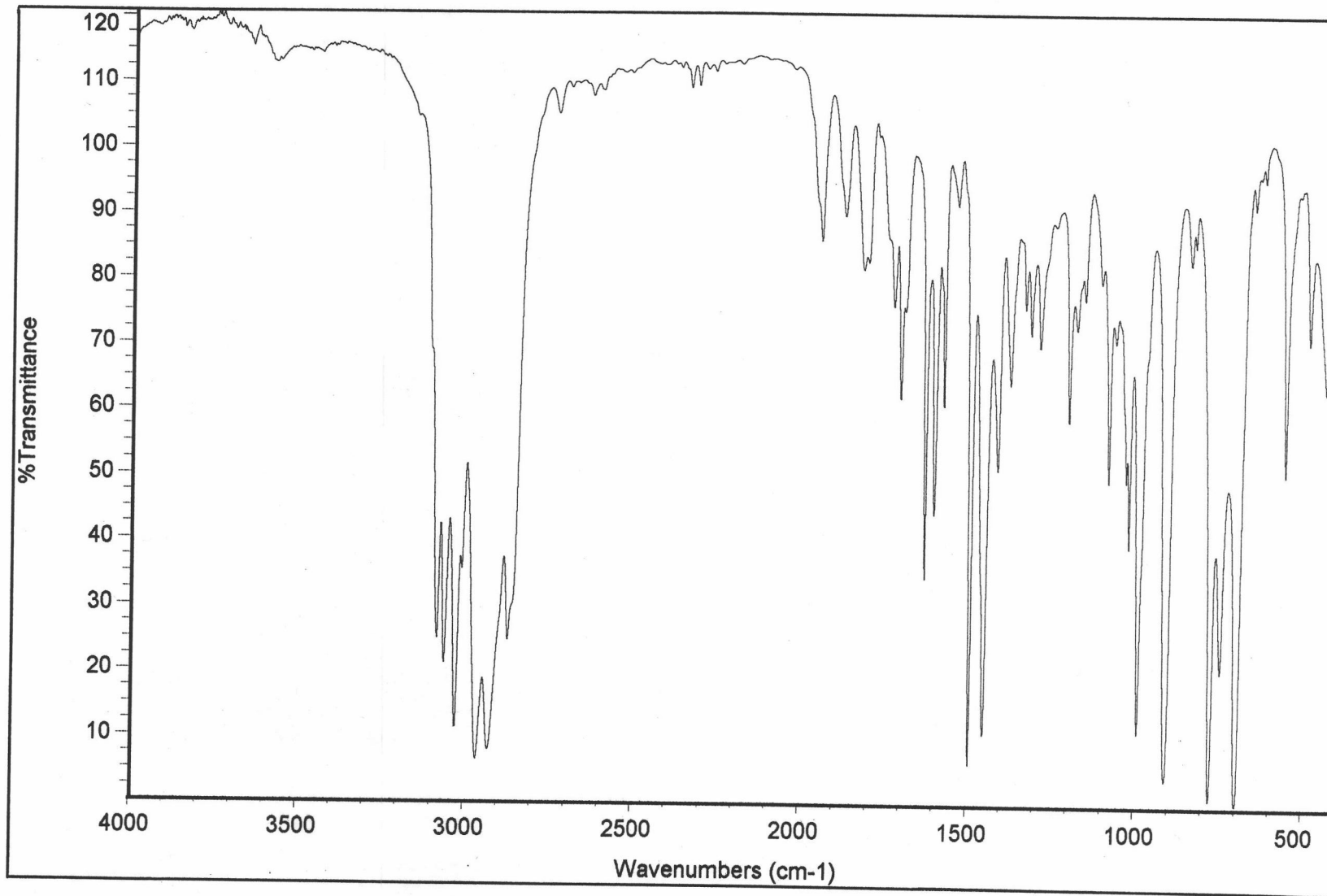


Figure A2 The infrared spectrum of styrene waste

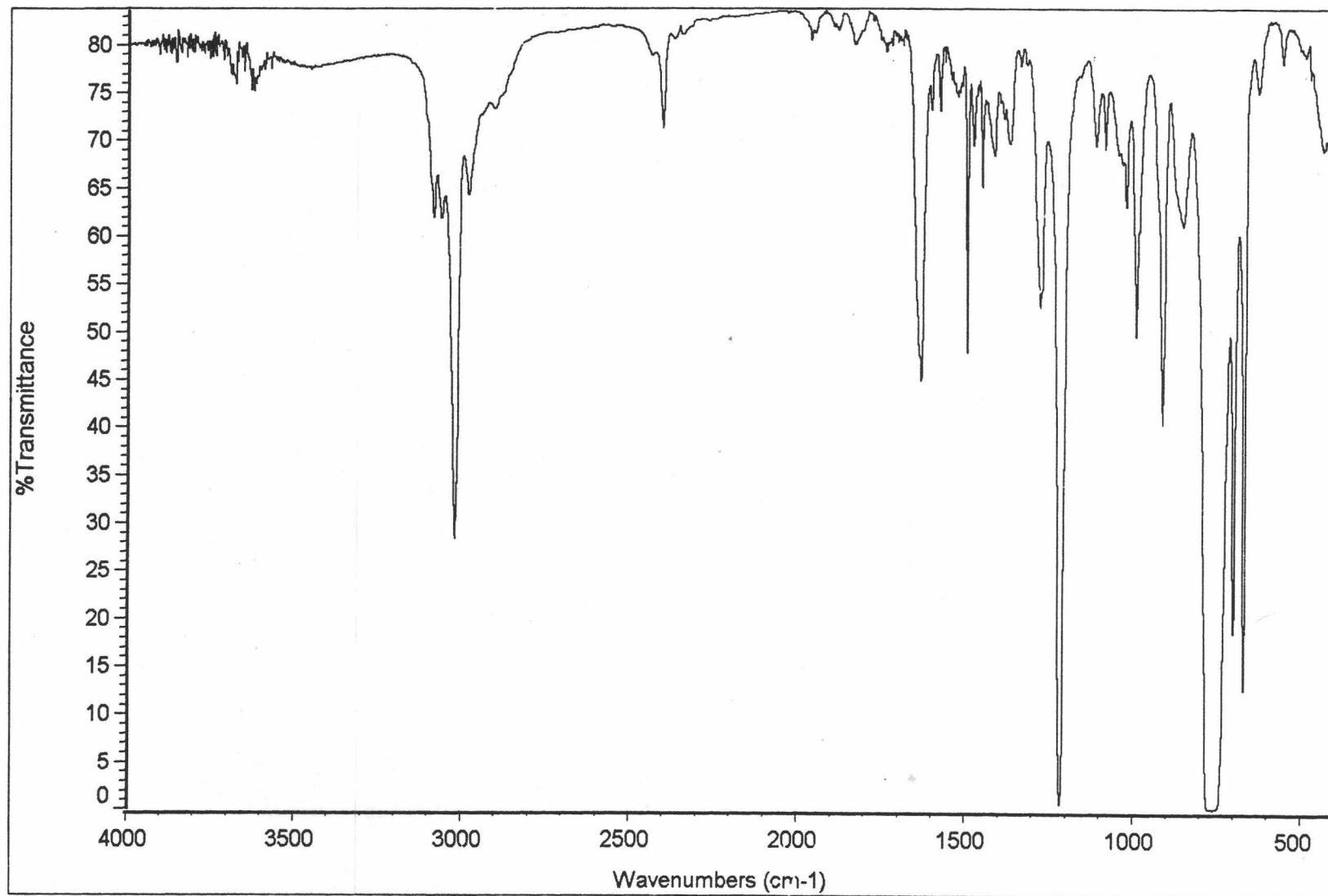


Figure A3 The infrared spectrum of 10%styrene in chloroform

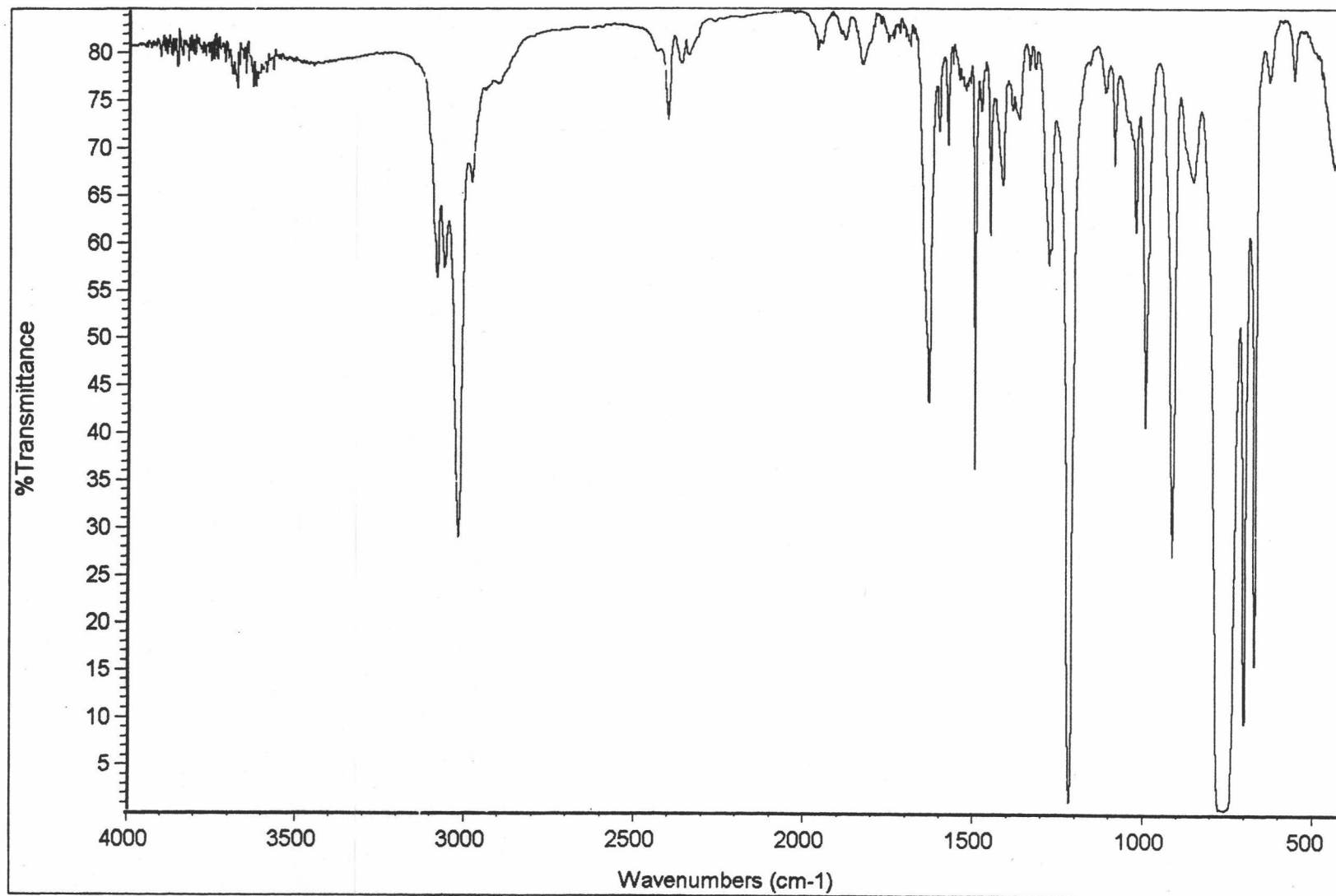


Figure A4 The infrared spectrum of 20%styrene in chloroform

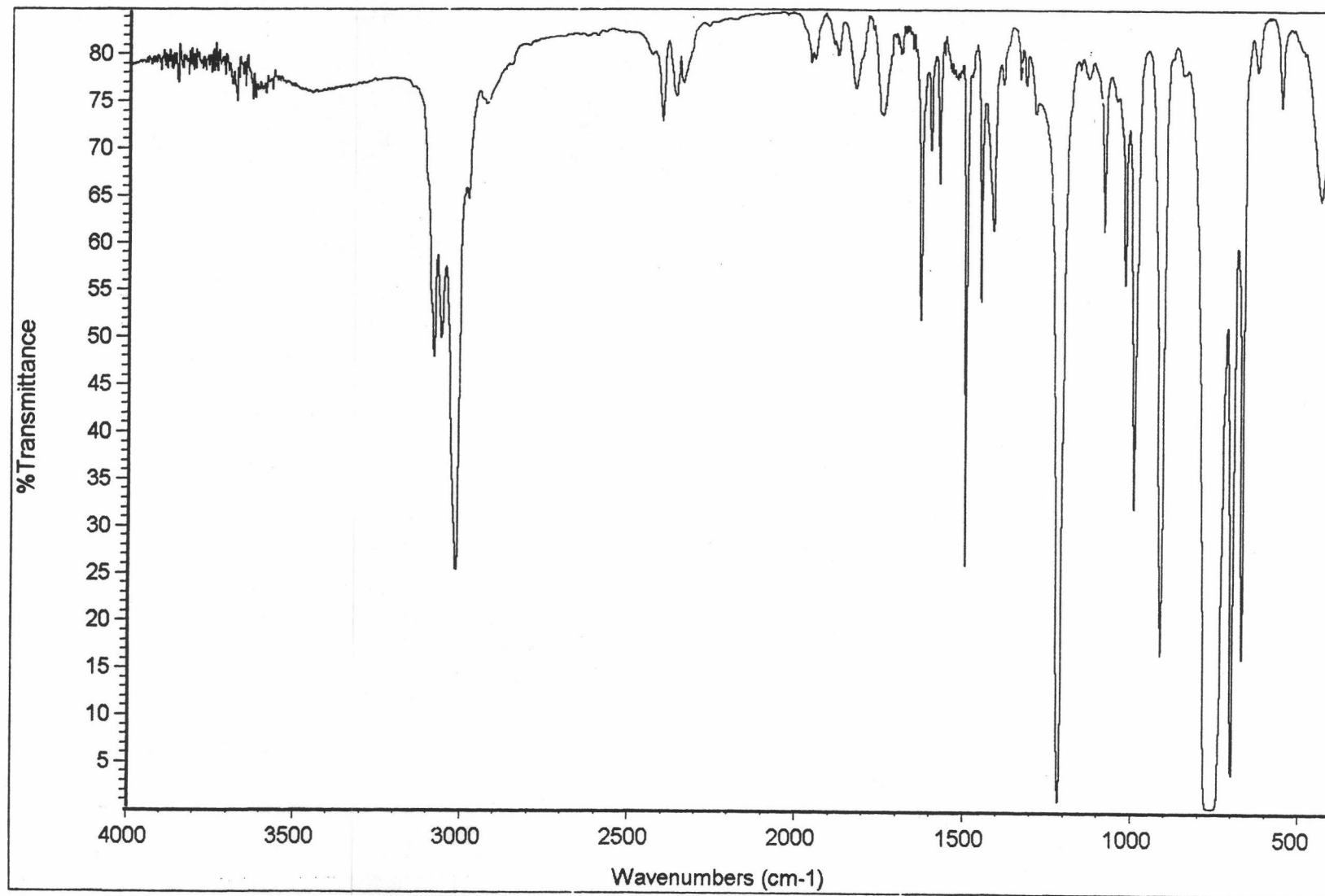


Figure A5 The infrared spectrum of 30%styrene in chloroform

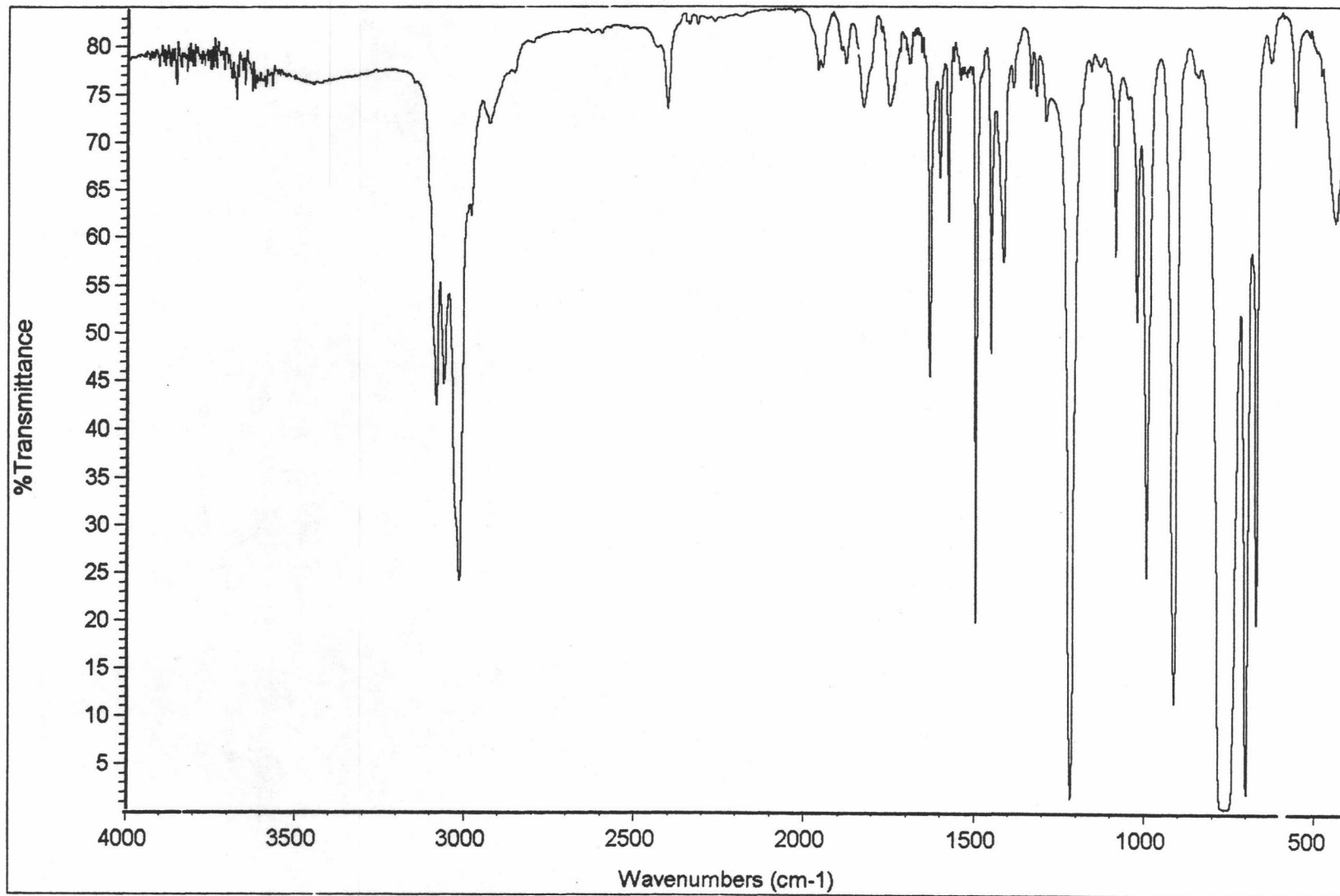


Figure A6 The infrared spectrum of 40%styrene in chloroform

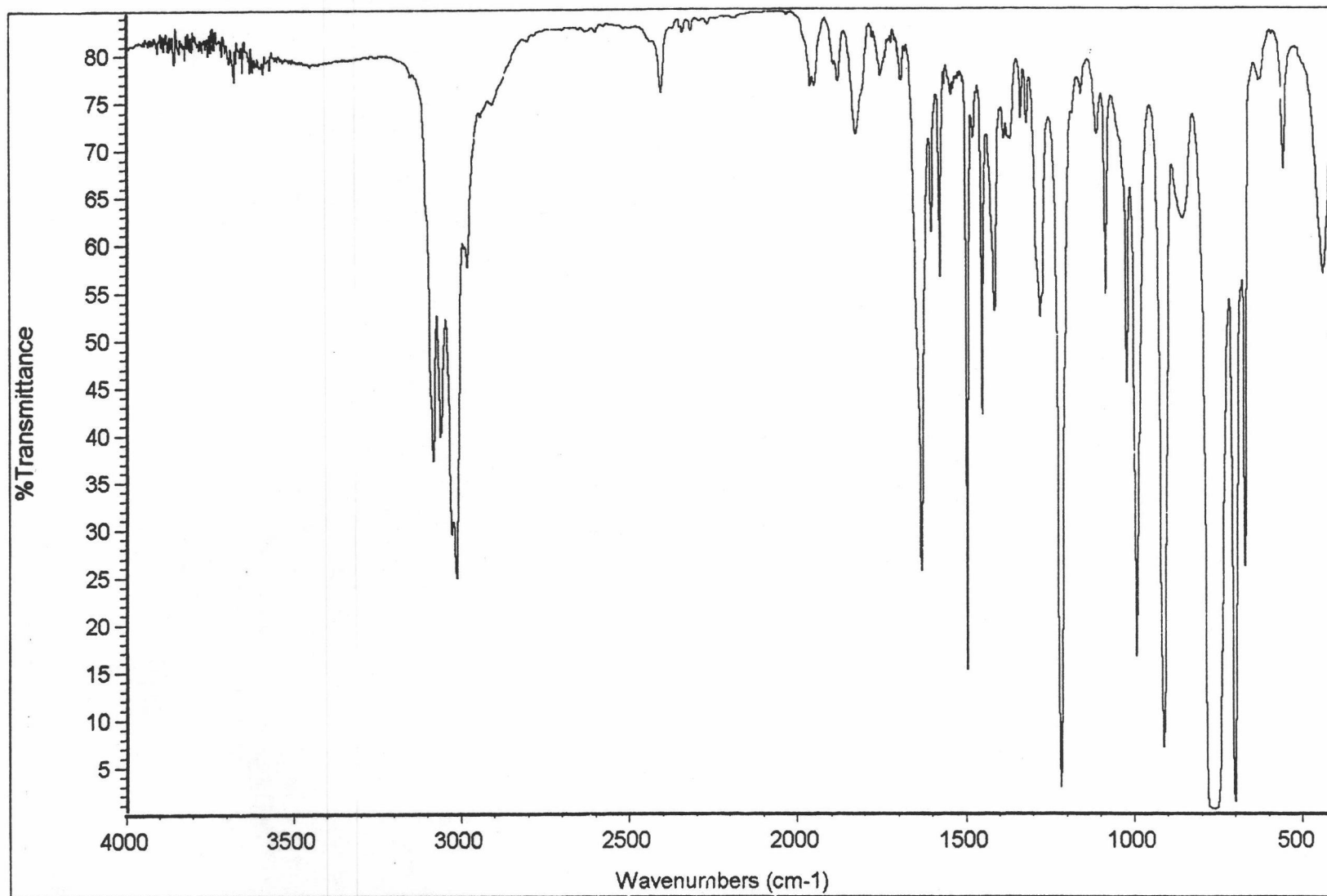


Figure A7 The infrared spectrum of 50%styrene in chloroform

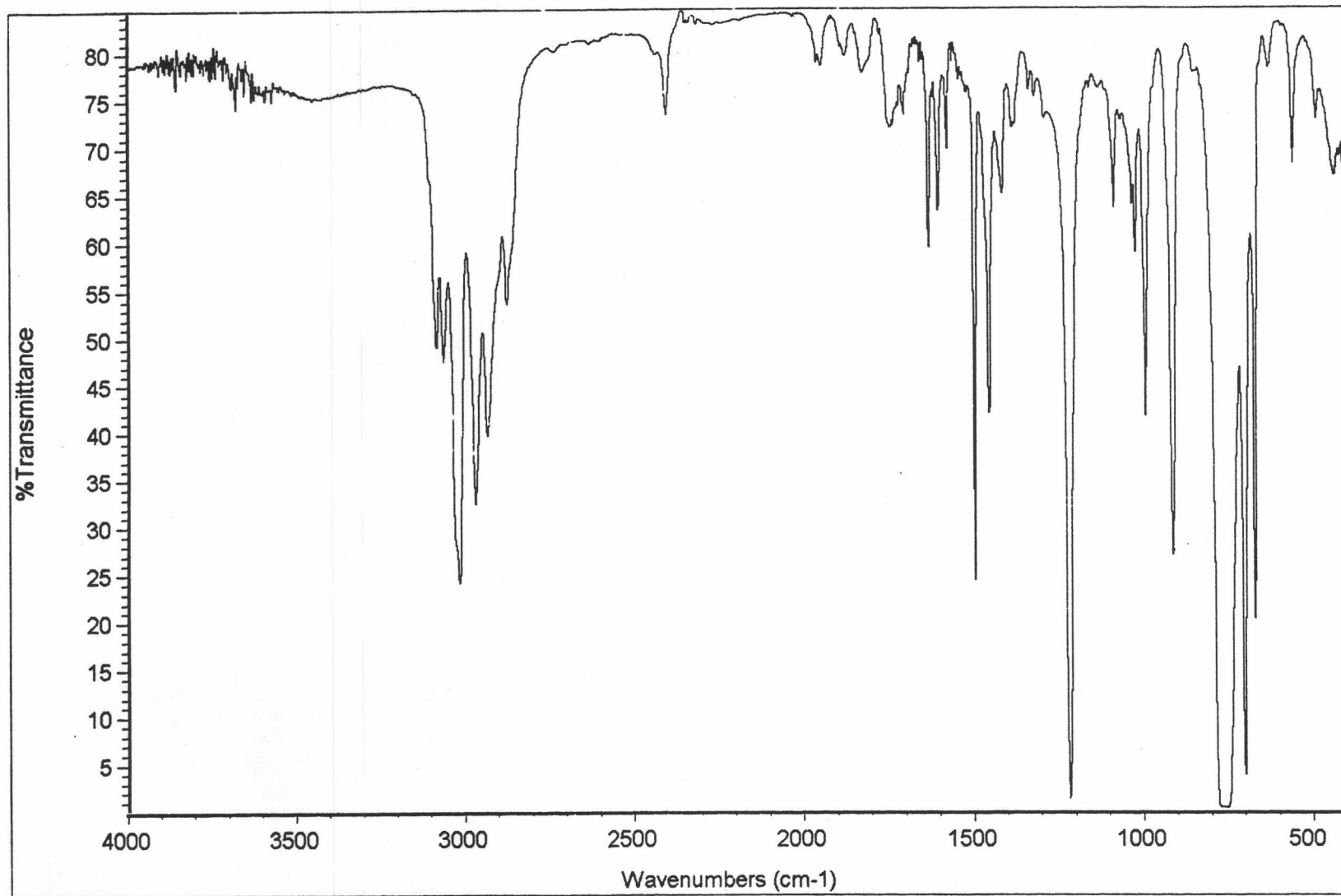


Figure A8 The infrared spectrum of styrene waste sample 1 in chloroform

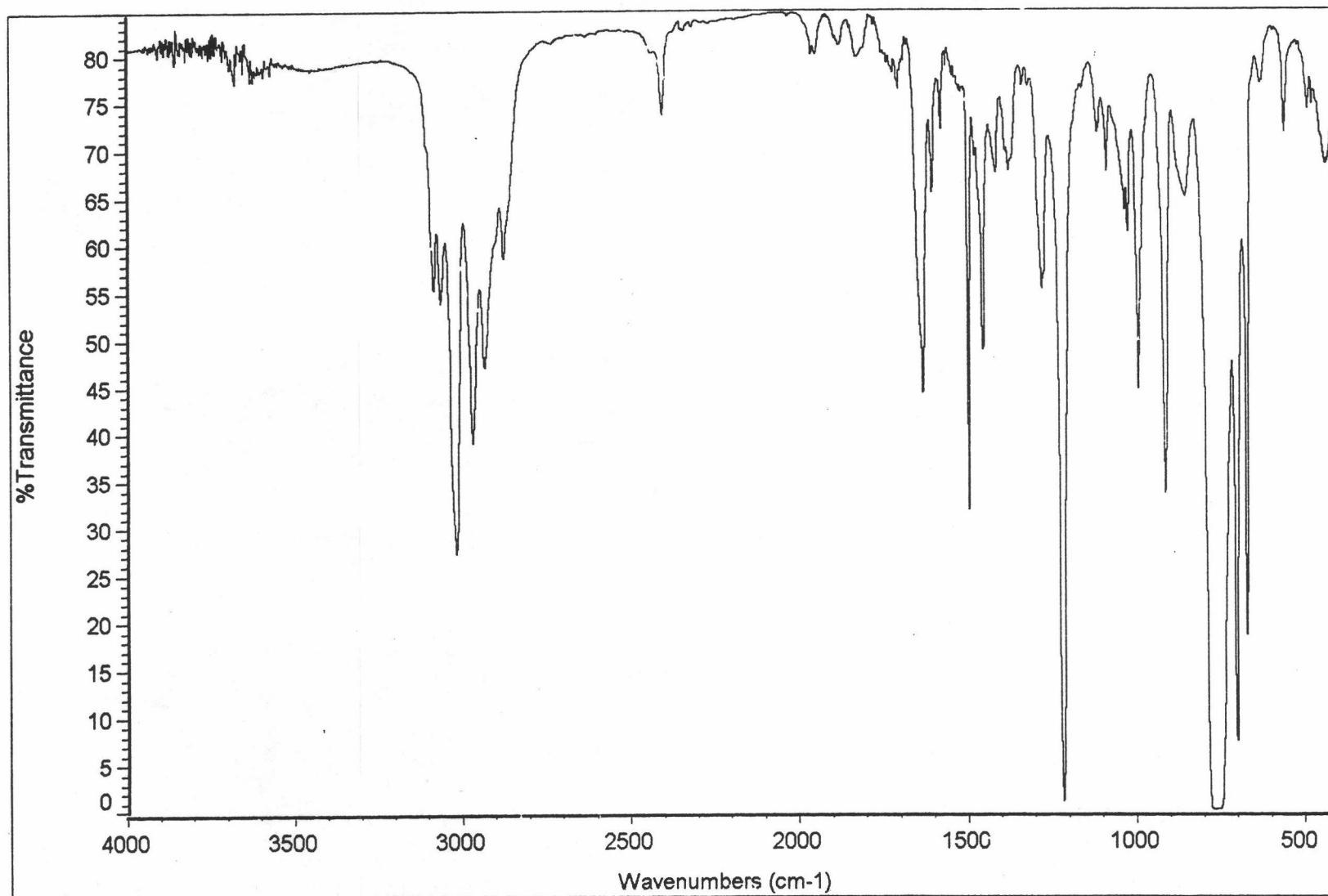


Figure A9 The infrared spectrum of styrene waste sample 2 in chloroform

Table A2 Quantitative analysis of styrene waste using Infrared spectrophotometry

Conc., %	%T1	%T2	Abs T1	Abs T2	Conc., %	Abs
10	75	40	0.12	0.40	10	0.27
20	77	27	0.11	0.57	20	0.46
30	80	16.5	0.10	0.78	30	0.69
40	79	11	0.10	0.96	40	0.86
50	71	7	0.15	1.15	50	1.01
waste1	80	26	0.10	0.59	21.02	0.49
waste2	75	33	0.12	0.48	13.99	0.36

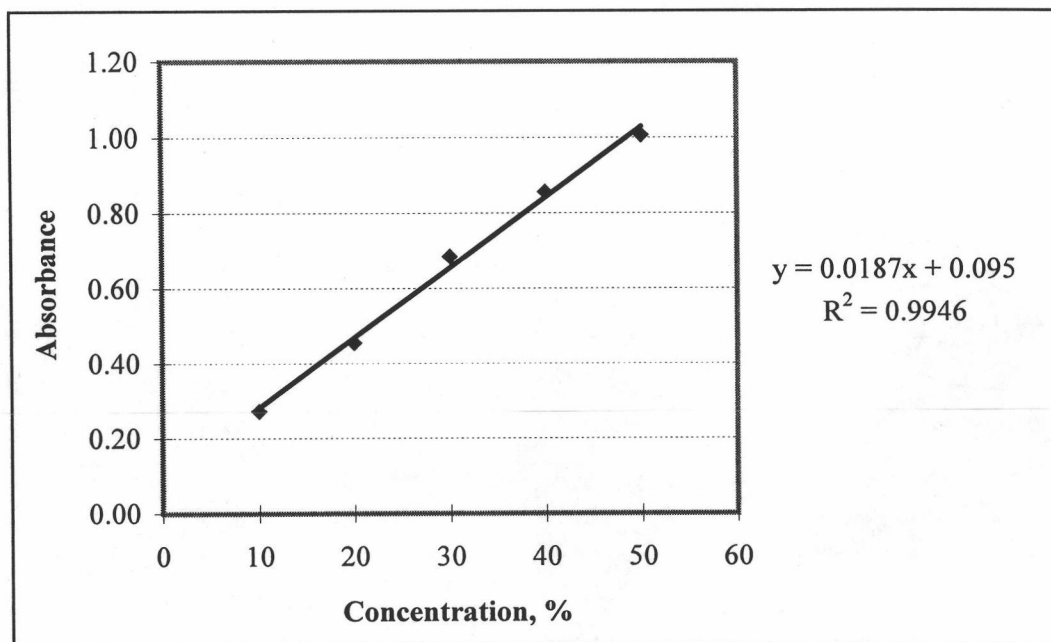


Figure A10 Calibration Curve of Styrene

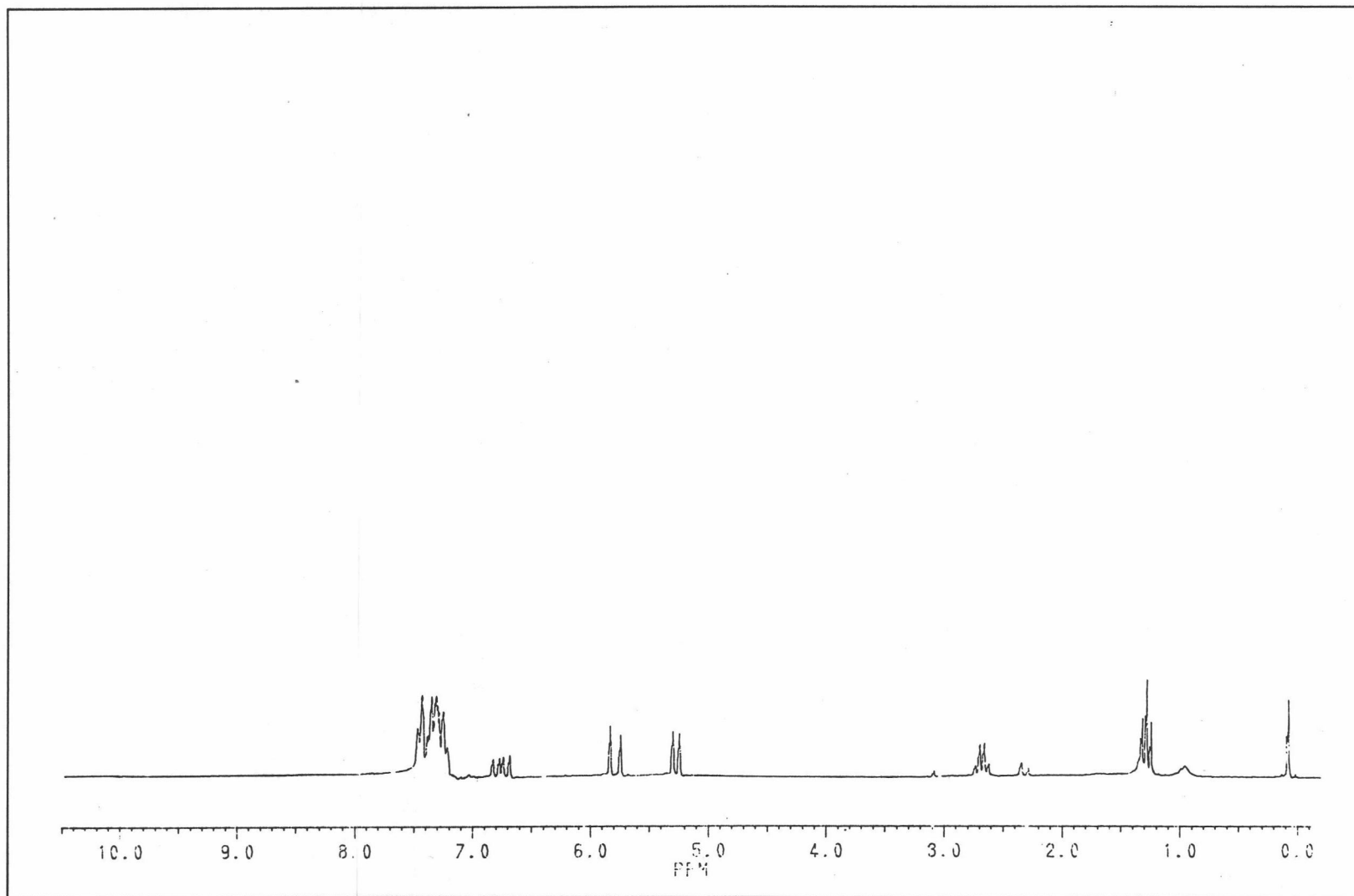


Figure A11 The $^1\text{H-NMR}$ spectrum of styrene waste

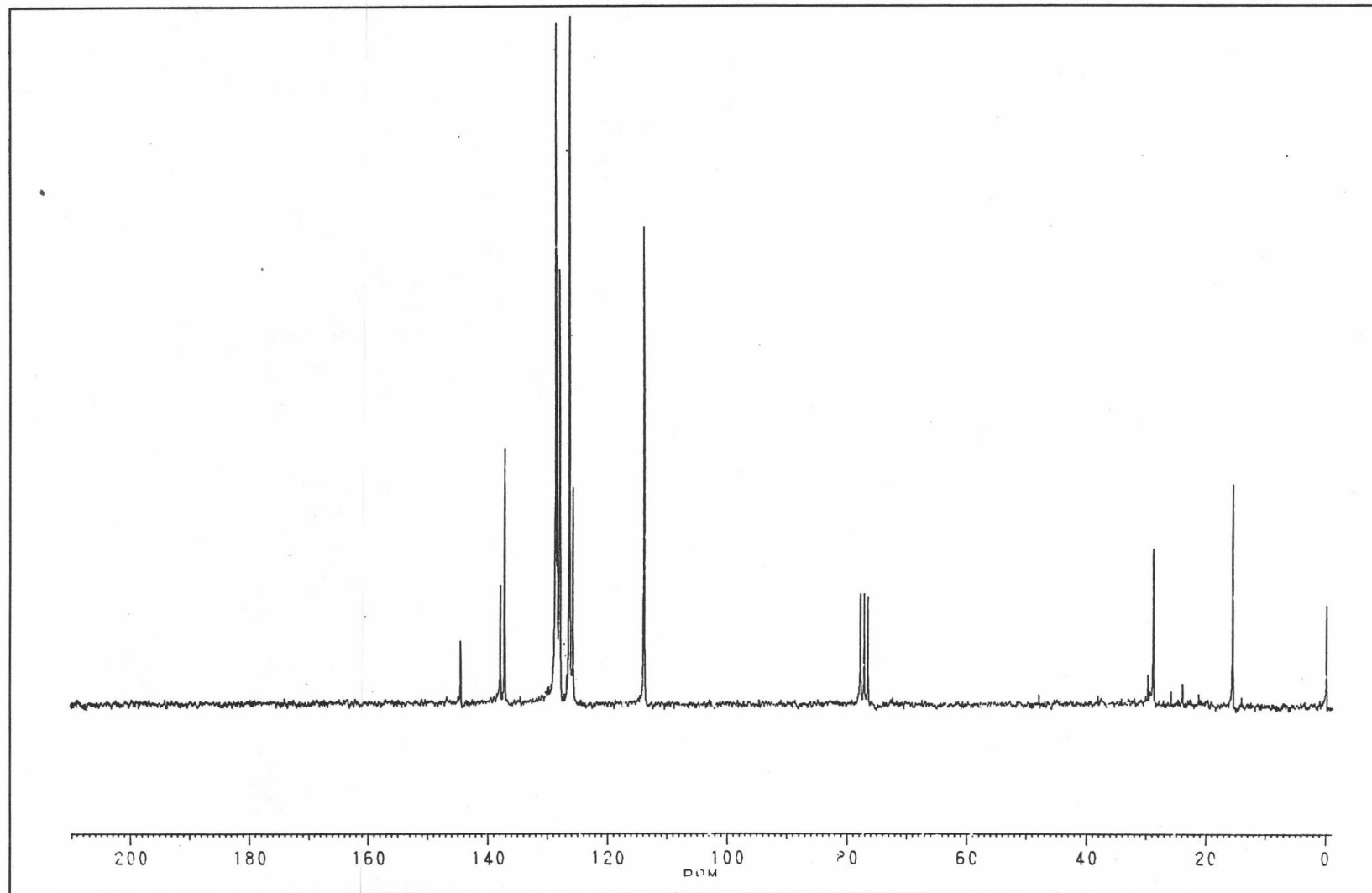


Figure A12 The ^{13}C -NMR spectrum of styrene waste

VITA

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