

# MOLE BALANCE REPORT FOR APM AND IT INVERSION PRODUCTS IN BEVERAGES

Initial pH = 3.52, with preservative (0.2000 grams/liter)  
buffered with citric acid (.9610 grams/liter) sodium citrate (.2800 grams/liter)

Average of six measurements (micromoles per milliliter)  
Note: a zero represents a value below detection limit

STUDY NO.	TEMP	WEEKS	alpha-APM	beta-APM	alpha-AP	beta-AP	DKP	PM	L-Phe	PA	L-Asp	MeOH
8202	5	0	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
8202	5	4	1.72	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.03
8202	5	12	1.67	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.07
8202	5	26	1.60	0.01	0.04	0.00	0.02	0.00	0.00	0.00	0.01	0.10
8202	5	39	1.63	0.02	0.07	0.00	0.03	0.02	0.00	0.00	0.00	
8202	20	4	1.67	0.01	0.03	0.00	0.02	0.01	0.00	0.00	0.03	0.14
8202	20	12	1.50	0.02	0.08	0.01	0.07	0.02	0.00	0.00	0.05	0.28
8202	20	26	1.33	0.05	0.14	0.03	0.14	0.04	0.01	0.00	0.17	0.38
8202	20	39	1.19	0.08	0.17	0.05	0.17	0.06	0.03	0.00	0.02	
8202	30	2	1.64	0.01	0.04	0.00	0.04	0.02	0.00	0.00	0.02	0.11
8202	30	4	1.54	0.03	0.07	0.01	0.07	0.03	0.00	0.00	0.10	0.34
8202	30	12	1.19	0.06	0.12	0.05	0.20	0.07	0.03	0.00	0.17	0.63
8202	30	16	1.07	0.09	0.14	0.08	0.25	0.08	0.04	0.00	0.22	0.86
8202	30	26	0.77	0.11	0.14	0.15	0.35	0.10	0.09	0.00	0.03	0.11
8202	30	39	0.51	0.15	0.12	0.25	0.43	0.11	0.15	0.01	0.05	0.30
8202	40	1	1.60	0.02	0.04	0.01	0.06	0.03	0.00	0.00	0.15	0.45
8202	40	2	1.46	0.03	0.06	0.01	0.10	0.05	0.01	0.00	0.16	0.57
8202	40	4	1.25	0.06	0.09	0.03	0.19	0.09	0.03	0.00	0.28	0.76
8202	40	6	1.05	0.08	0.10	0.07	0.28	0.11	0.05	0.00	0.33	0.87
8202	40	8	0.88	0.10	0.10	0.10	0.33	0.12	0.08	0.00	0.01	
8202	40	12	0.60	0.11	0.09	0.17	0.44	0.13	0.14	0.01	0.01	
8202	40	16	0.45	0.15	0.08	0.23	0.51	0.14	0.21	0.01	0.01	

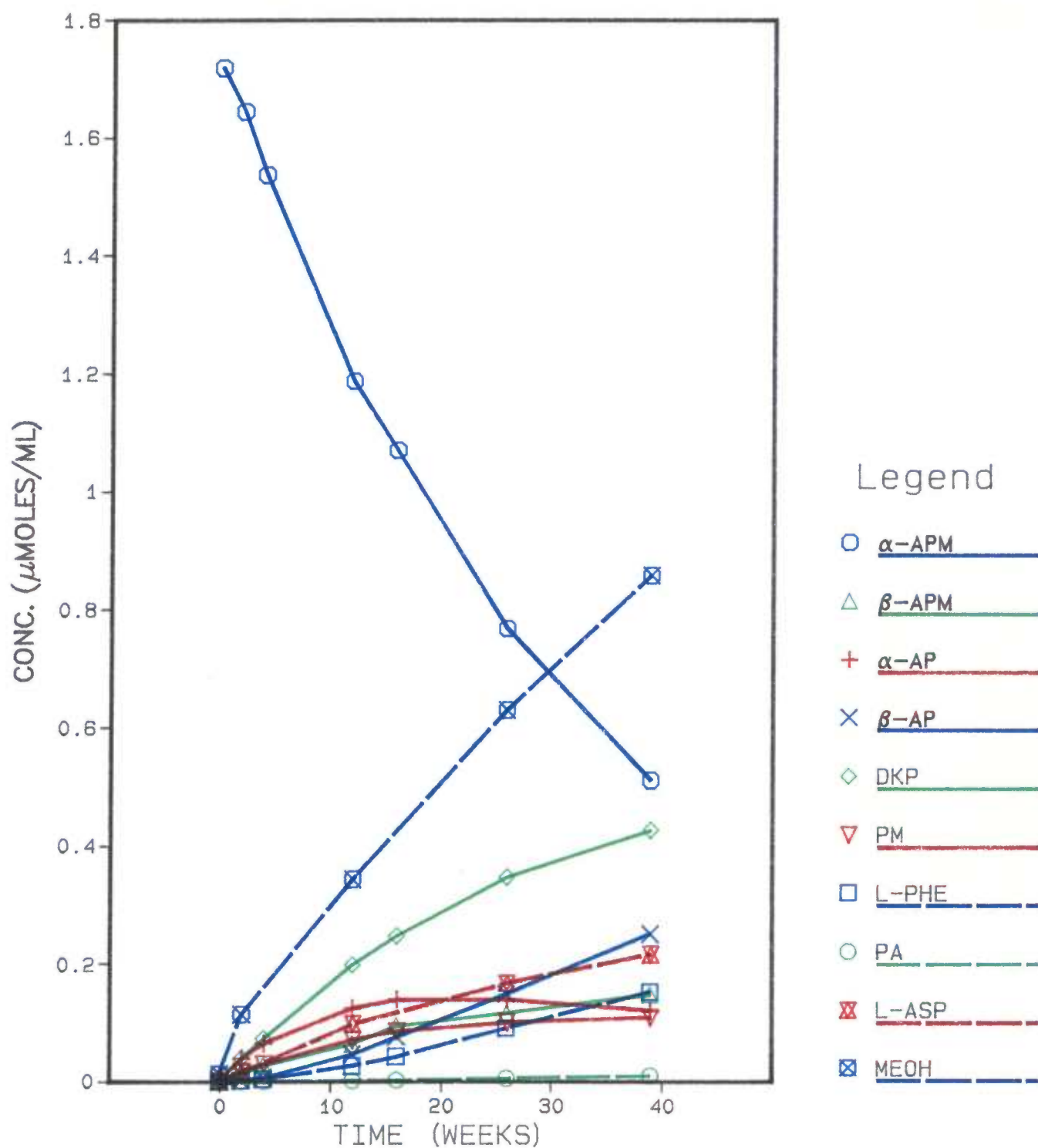
# MOLE BALANCE REPORT FOR APM AND IT, CONVERSION PRODUCTS IN BEVERAGES

Initial pH = 3.52, with preservative (0.2000 grams/liter)  
buffered with citric acid (.9610 grams/liter) sodium citrate (.2800 grams/liter)

Amount present expressed as percent of APM initially present  
Note: a zero represents a value below detection limit

STUDY NO.	TEMP	WEEKS	alpha-APM	beta-APM	alpha-AP	beta-AP	DKP	PM	L-Phe	PA	L-Asp	MeOH
8202	5	0	100.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.7
8202	5	4	99.8	0.0	0.7	0.0	0.4	0.0	0.0	0.0	0.0	0.7
8202	5	12	97.1	0.3	1.4	0.0	0.7	0.0	0.0	0.0	0.1	2.0
8202	5	26	93.2	0.7	2.6	0.0	1.3	0.0	0.0	0.0	0.0	4.3
8202	5	39	94.6	1.0	3.8	0.1	1.8	1.0	0.3	0.0	0.4	5.7
8202	20	4	97.3	0.6	1.9	0.0	1.4	0.4	0.0	0.0	0.0	0.0
8202	20	12	87.0	1.4	4.4	0.3	3.8	1.2	0.2	0.0	1.5	8.0
8202	20	26	77.4	3.1	8.0	1.6	8.0	2.4	0.7	0.0	2.8	16.3
8202	20	39	69.1	4.6	9.8	3.2	10.0	3.5	1.6	0.1	9.8	22.3
8202	30	2	95.7	0.8	2.2	0.1	2.3	1.0	0.1	0.0	0.9	6.6
8202	30	4	89.4	1.5	3.8	0.3	4.2	1.7	0.2	0.0	0.0	0.0
8202	30	12	69.1	3.7	7.2	2.6	11.5	4.1	1.5	0.1	5.6	19.9
8202	30	16	62.2	5.4	8.0	4.4	14.4	4.9	2.4	0.1	0.0	0.0
8202	30	26	44.7	6.7	8.0	8.6	20.1	5.8	5.2	0.3	9.7	36.6
8202	30	39	29.7	8.5	6.9	14.5	24.7	6.3	8.8	0.5	12.5	49.9
8202	40	1	93.2	0.9	2.2	0.5	3.2	1.5	0.0	0.0	1.5	6.6
8202	40	2	85.0	1.7	3.7	0.6	6.1	2.8	0.4	0.0	3.0	0.0
8202	40	4	72.5	3.6	5.5	2.1	11.3	5.1	1.4	0.1	5.1	17.2
8202	40	6	60.9	4.7	6.0	4.0	16.3	6.3	2.9	0.1	8.7	26.1
8202	40	8	51.3	6.0	6.0	6.1	19.3	7.1	4.4	0.2	9.3	33.3
8202	40	12	34.8	6.4	5.2	10.0	25.7	7.7	8.3	0.4	16.0	44.1
8202	40	16	26.2	8.9	4.5	13.3	29.8	8.0	11.9	0.7	19.1	50.7

# $\alpha$ -APM & CONVERSION PRODUCTS 30°C STUDY 8202



Mar. 31, 1986

# MOLE BALANCE REPORT FOR APM AND CONVERSION PRODUCTS IN BEVERAGES

Initial pH = 2.55, buffered with phosphoric acid (.8300 grams/liter)

Average of six measurements ( micromoles per milliliter )  
Note: a zero represents a value below detection limit

STUDY NO.	TEMP	WEEKS	alpha-APM	beta-APM	alpha-AP	beta-AP	DKP	PM	L-Phe	PA	L-Asp	MeOH
8203	5	0	1.69	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.03
8203	5	4	1.66	0.00	0.04	0.00	0.01	0.00	0.00	0.00	0.01	0.09
8203	5	12	1.60	0.01	0.08	0.00	0.02	0.01	0.00	0.00	0.02	0.19
8203	5	26	1.49	0.01	0.15	0.00	0.05	0.02	0.00	0.00	0.02	0.25
8203	5	39	1.39	0.02	0.21	0.00	0.06	0.03	0.01	0.00	0.02	
8203	20	4	1.54	0.01	0.10	0.00	0.05	0.02	0.00	0.00		
8203	20	12	1.22	0.03	0.24	0.02	0.14	0.07	0.02	0.00	0.08	0.36
8203	20	26	0.84	0.05	0.34	0.06	0.26	0.10	0.05	0.01	0.13	0.63
8203	20	39	0.60	0.06	0.37	0.11	0.32	0.12	0.09	0.01	0.17	0.82
8203	30	2	1.45	0.02	0.11	0.00	0.07	0.05	0.00	0.00	0.04	0.22
8203	30	4	1.26	0.03	0.18	0.01	0.14	0.08	0.01	0.00		
8203	30	8	0.92	0.06	0.25	0.05	0.24	0.13	0.05	0.01	0.15	
8203	30	12	0.69	0.07	0.28	0.09	0.34	0.16	0.09	0.01	0.22	0.70
8203	30	16	0.49	0.07	0.26	0.14	0.40	0.16	0.13	0.02		
8203	30	26	0.23	0.05	0.21	0.23	0.51	0.16	0.25	0.05	0.35	1.12
8203	30	39	0.08	0.03	0.13	0.31	0.53	0.13	0.36	0.08	0.43	1.27
8203	40	1	1.40	0.02	0.11	0.02	0.10	0.07	0.00	0.00	0.07	0.22
8203	40	2	1.11	0.04	0.17	0.02	0.19	0.13	0.03	0.00	0.13	
8203	40	4	0.75	0.07	0.21	0.07	0.32	0.20	0.08	0.01	0.22	0.62
8203	40	6	0.49	0.08	0.19	0.12	0.43	0.23	0.15	0.02	0.36	0.83
8203	40	8	0.32	0.08	0.17	0.17	0.48	0.23	0.22	0.03	0.36	0.95
8203	40	12	0.13	0.06	0.11	0.24	0.54	0.21	0.35	0.06	0.52	1.16
8203	40	16	0.06	0.03	0.08	0.26	0.55	0.17	0.46	0.08	0.63	1.29
8203	40	26	0.00	0.01	0.05	0.25	0.51	0.09	0.67	0.11	0.63	1.41

## MOLE BALANCE REPORT FOR APM AND CONVERSION PRODUCTS IN BEVERAGES

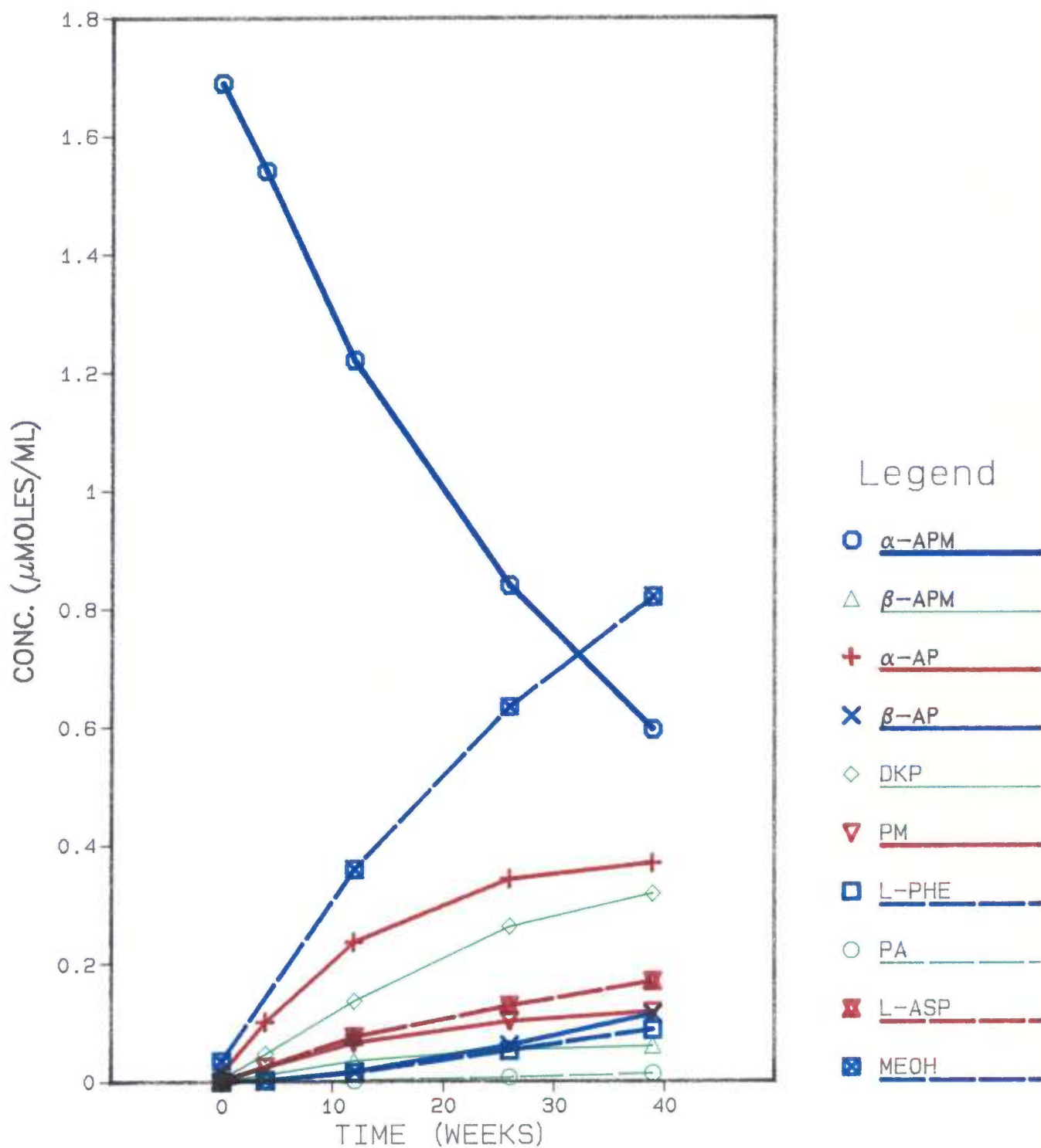
Initial pH = 2.55, buffered with phosphoric acid (.8300 grams/liter)

Amount present expressed as percent of APM initially present  
 Note: a zero represents a value below detection limit

STUDY NO.	TEMP	WEEKS	alpha-APM	beta-APM	alpha-AP	beta-AP	DKP	PM	L-Phe	PA	L-Asp	MeOH
8203	5	0	100.0	0.0	0.7	0.0	0.2	0.0	0.0	0.0	0.0	2.1
8203	5	4	98.1	0.0	2.3	0.0	0.7	0.0	0.0	0.0	0.0	5.2
8203	5	12	94.8	0.4	4.9	0.0	1.4	0.6	0.0	0.0	0.6	11.4
8203	5	26	88.1	0.6	9.0	0.1	2.7	1.0	0.1	0.0	0.9	15.0
8203	5	39	82.0	0.9	12.3	0.3	3.5	1.8	0.4	0.0	1.3	
8203	20	4	91.2	0.7	5.9	0.1	2.8	1.4	0.1	0.0		
8203	20	12	72.2	2.1	13.9	0.9	8.1	3.8	0.9	0.1	4.4	21.2
8203	20	26	49.6	3.2	20.2	3.6	15.5	6.0	3.1	0.4	7.5	37.5
8203	20	39	35.2	3.6	21.8	6.8	18.8	7.0	5.2	0.8	10.0	48.5
8203	30	2	85.9	0.9	6.5	0.2	4.2	2.7	0.3	0.0	2.6	12.9
8203	30	4	74.7	1.9	10.7	0.7	8.0	4.8	0.8	0.1		
8203	30	8	54.4	3.4	14.8	2.8	14.5	7.5	2.7	0.4	8.6	
8203	30	12	40.8	4.2	16.3	5.5	20.1	9.2	5.3	0.8	13.1	41.1
8203	30	16	29.0	4.1	15.5	8.2	23.5	9.7	7.6	1.2		
8203	30	26	13.4	3.1	12.4	13.6	30.1	9.7	14.9	2.6	20.5	66.1
8203	30	39	4.5	1.8	8.0	18.3	31.4	7.9	21.4	4.6	25.4	75.3
8203	40	1	82.8	1.1	6.4	1.1	6.0	4.2	0.1	0.0	4.3	12.9
8203	40	2	66.0	2.4	9.7	1.2	11.0	7.6	1.5	0.2	7.7	
8203	40	4	44.3	4.2	12.1	4.0	19.0	11.7	4.7	0.7	13.3	36.4
8203	40	6	29.2	4.7	11.5	7.3	25.7	13.4	8.9	1.3	21.4	49.0
8203	40	8	18.6	4.4	9.8	10.2	28.3	13.8	12.8	2.1	21.0	56.2
8203	40	12	7.5	3.3	6.6	13.9	31.8	12.4	20.8	3.6	30.7	68.6
8203	40	16	3.3	2.0	4.7	15.4	32.4	10.4	27.4	5.0	37.4	76.1
8203	40	26	0.0	0.4	3.0	14.6	29.9	5.6	39.5	6.8	37.6	83.5



# $\alpha$ -APM & CONVERSION PRODUCTS 20°C STUDY 8203



Mar. 31, 1986

## MOLE BALANCE REPORT FOR APM A ITS CONVERSION PRODUCTS IN BEVERAGES

Initial pH = 3.19, with preservative (.2000 grams/liter)  
buffered with phosphoric acid (.8300 grams/liter), sodium citrate (.4600 grams/liter)

Average of six measurements ( micromoles per milliliter )  
Note: a zero represents a value below detection limit

STUDY NO.	TEMP	WEEKS	alpha-APM	beta-APM	alpha-AP	beta-AP	DKP	PM	L-Phe	PA	L-Asp	MeOH
8213	5	0	1.74	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8213	5	6	1.68	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00
8213	5	26	1.61	0.01	0.07	0.00	0.03	0.01	0.00	0.00	0.01	0.10
8213	5	38	1.58	0.02	0.09	0.00	0.04	0.02	0.02	0.00	0.01	0.13
8213	20	6	1.57	0.01	0.06	0.00	0.04	0.02	0.00	0.00		
8213	20	8	1.54	0.02	0.07	0.00	0.06	0.02	0.00	0.00		
8213	20	16	1.42	0.04	0.13	0.01	0.11	0.04	0.01	0.00		
8213	20	26	1.21	0.07	0.17	0.04	0.16	0.06	0.02	0.00	0.07	0.37
8213	20	38	1.03	0.09	0.21	0.07	0.23	0.08	0.05	0.00	0.09	0.51
8213	30	2	1.58	0.02	0.06	0.00	0.06	0.03	0.00	0.00	0.02	0.11
8213	30	4	1.46	0.03	0.09	0.01	0.10	0.05	0.01	0.00		
8213	30	6	1.35	0.05	0.11	0.02	0.14	0.07	0.01	0.00		
8213	30	8	1.22	0.07	0.13	0.03	0.18	0.08	0.02	0.00	0.09	0.33
8213	30	16	0.90	0.11	0.16	0.10	0.32	0.11	0.07	0.00		
8213	30	26	0.55	0.13	0.15	0.20	0.41	0.13	0.13	0.01	0.22	0.88
8213	30	38	0.32	0.13	0.12	0.29	0.50	0.14	0.22	0.02	0.28	1.07
8213	40	1	1.55	0.00	0.05	0.00	0.07	0.04	0.00	0.00	0.04	0.12
8213	40	2	1.39	0.04	0.08	0.01	0.13	0.07	0.01	0.00		
8213	40	4	1.10	0.08	0.11	0.05	0.25	0.12	0.04	0.00	0.14	0.39
8213	40	6	0.87	0.09	0.12	0.09	0.32	0.14	0.07	0.00	0.20	0.53
8213	40	12	0.42	0.12	0.09	0.21	0.49	0.17	0.18	0.01	0.35	0.90
8213	40	16	0.26	0.14	0.07	0.26	0.56	0.16	0.28	0.02	0.41	1.08

## MOLE BALANCE REPORT FOR APM A ITS CONVERSION PRODUCTS IN BEVERAGES

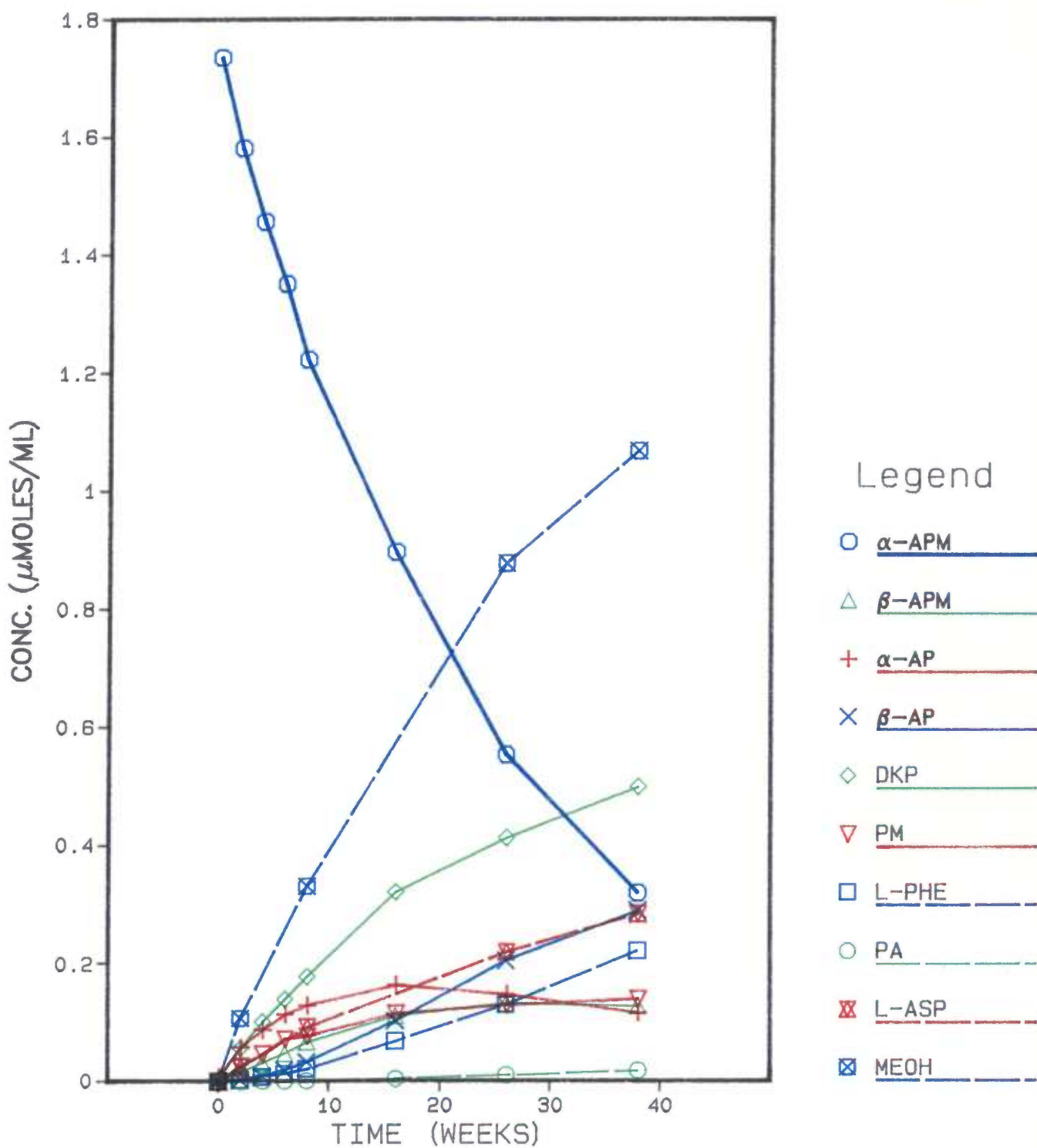
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Amount present expressed as percent of APM initially present  
Note: a zero represents a value below detection limit

STUDY NO.	TEMP	WEEKS	alpha-APM	beta-APM	alpha-AP	beta-AP	DKP	PM	L-Phe	PA	L-Asp	MeOH
8213	5	0	100.0	0.0	0.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0
8213	5	6	96.6	0.1	1.4	0.0	0.7	0.0	0.0	0.0	0.0	0.0
8213	5	26	93.0	0.7	4.0	0.1	1.9	0.5	0.1	0.0	0.5	6.1
8213	5	38	91.3	0.8	5.2	0.1	2.4	1.3	1.1	0.0	0.7	7.3
8213	20	6	90.6	0.8	3.5	0.1	2.5	1.0	0.1	0.0		
8213	20	8	88.9	1.1	4.3	0.2	3.2	1.2	0.1	0.0		
8213	20	16	81.8	2.5	7.5	0.8	6.6	2.3	0.5	0.0		
8213	20	26	69.6	4.0	9.9	2.2	9.2	3.3	1.1	0.1	3.8	21.3
8213	20	38	59.4	5.1	11.9	4.1	13.1	4.8	2.8	0.2	5.4	29.3
8213	30	2	91.1	0.9	3.3	0.1	3.2	1.5	0.1	0.0	1.4	6.1
8213	30	4	84.0	1.8	5.0	0.5	5.8	2.7	0.4	0.0		
8213	30	6	77.8	2.7	6.5	1.1	8.0	4.2	0.7	0.0		
8213	30	8	70.4	3.8	7.4	1.9	10.2	4.4	1.2	0.1	5.3	19.0
8213	30	16	51.7	6.3	9.4	5.9	18.5	6.6	3.9	0.2		
8213	30	26	31.8	7.6	8.5	11.8	23.7	7.4	7.4	0.6	12.6	50.5
8213	30	38	18.4	7.3	6.7	16.6	28.7	8.0	12.7	1.0	16.4	61.5
8213	40	1	89.5	0.0	2.9	0.2	4.2	2.1	0.2	0.0	2.2	7.0
8213	40	2	80.0	2.2	4.8	0.8	7.8	4.1	0.6	0.0		
8213	40	4	63.5	4.4	6.6	2.9	14.4	6.9	2.2	0.1	8.1	22.5
8213	40	6	49.8	5.4	6.9	5.1	18.5	8.2	3.9	0.2	11.7	30.7
8213	40	12	23.9	7.2	5.2	11.9	28.0	9.7	10.6	0.8	20.0	51.6
8213	40	16	15.0	7.9	4.1	14.9	32.2	9.0	16.3	1.2	23.4	62.5



$\alpha$ -APM & CONVERSION PRODUCTS  
30°C STUDY 8213



# MOLE BALANCE REPORT FOR APM ITS CONVERSION PRODUCTS IN BEVERAGES

Initial pH = 3.48, with preservative (.2000 grams/liter) and flavor (0.95 grams/liter) buffered with citric acid (.9610 grams/liter) sodium citrate (.2800 grams/liter)

Average of six measurements ( micromoles per milliliter )  
Note: a zero represents a value below detection limit

STUDY NO.	TEMP	WEEKS	alpha-APM	beta-APM	alpha-AP	beta-AP	DKP	PM	L-Phe	PA	L-Asp	MeOH
8214	5	0	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8214	5	6	1.70	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00
8214	5	26	1.65	0.01	0.05	0.00	0.03	0.00	0.00	0.00	0.01	0.07
8214	5	38	1.63	0.01	0.07	0.00	0.03	0.02	0.01	0.00	0.01	0.10
8214	20	6	1.67	0.00	0.03	0.00	0.02	0.00	0.00	0.00	0.00	0.00
8214	20	8	1.62	0.01	0.04	0.00	0.03	0.01	0.00	0.00	0.00	0.00
8214	20	26	1.36	0.05	0.13	0.02	0.12	0.04	0.01	0.00	0.04	0.26
8214	20	38	1.24	0.06	0.16	0.04	0.17	0.06	0.03	0.00	0.06	0.36
8214	30	2	1.63	0.01	0.04	0.00	0.04	0.02	0.00	0.00	0.02	0.08
8214	30	4	1.53	0.02	0.07	0.01	0.08	0.03	0.00	0.00	0.00	0.00
8214	30	6	1.44	0.03	0.09	0.01	0.11	0.04	0.01	0.00	0.00	0.00
8214	30	8	1.33	0.05	0.10	0.02	0.14	0.05	0.01	0.00	0.06	0.26
8214	30	16	1.06	0.09	0.14	0.07	0.25	0.08	0.04	0.00	0.00	0.00
8214	30	26	0.77	0.11	0.14	0.16	0.36	0.10	0.09	0.00	0.16	0.69
8214	30	38	0.53	0.13	0.12	0.24	0.43	0.11	0.16	0.01	0.22	0.89
8214	40	1	1.68	0.00	0.04	0.00	0.06	0.03	0.00	0.00	0.03	0.11
8214	40	2	1.48	0.03	0.06	0.01	0.10	0.05	0.01	0.00	0.00	0.00
8214	40	4	1.26	0.06	0.09	0.03	0.19	0.08	0.02	0.00	0.09	0.32
8214	40	6	1.04	0.08	0.10	0.06	0.26	0.10	0.05	0.00	0.14	0.43
8214	40	12	0.63	0.12	0.09	0.17	0.42	0.13	0.13	0.01	0.25	0.76
8214	40	16	0.44	0.14	0.08	0.82	0.49	0.13	0.82	0.01	0.32	0.98

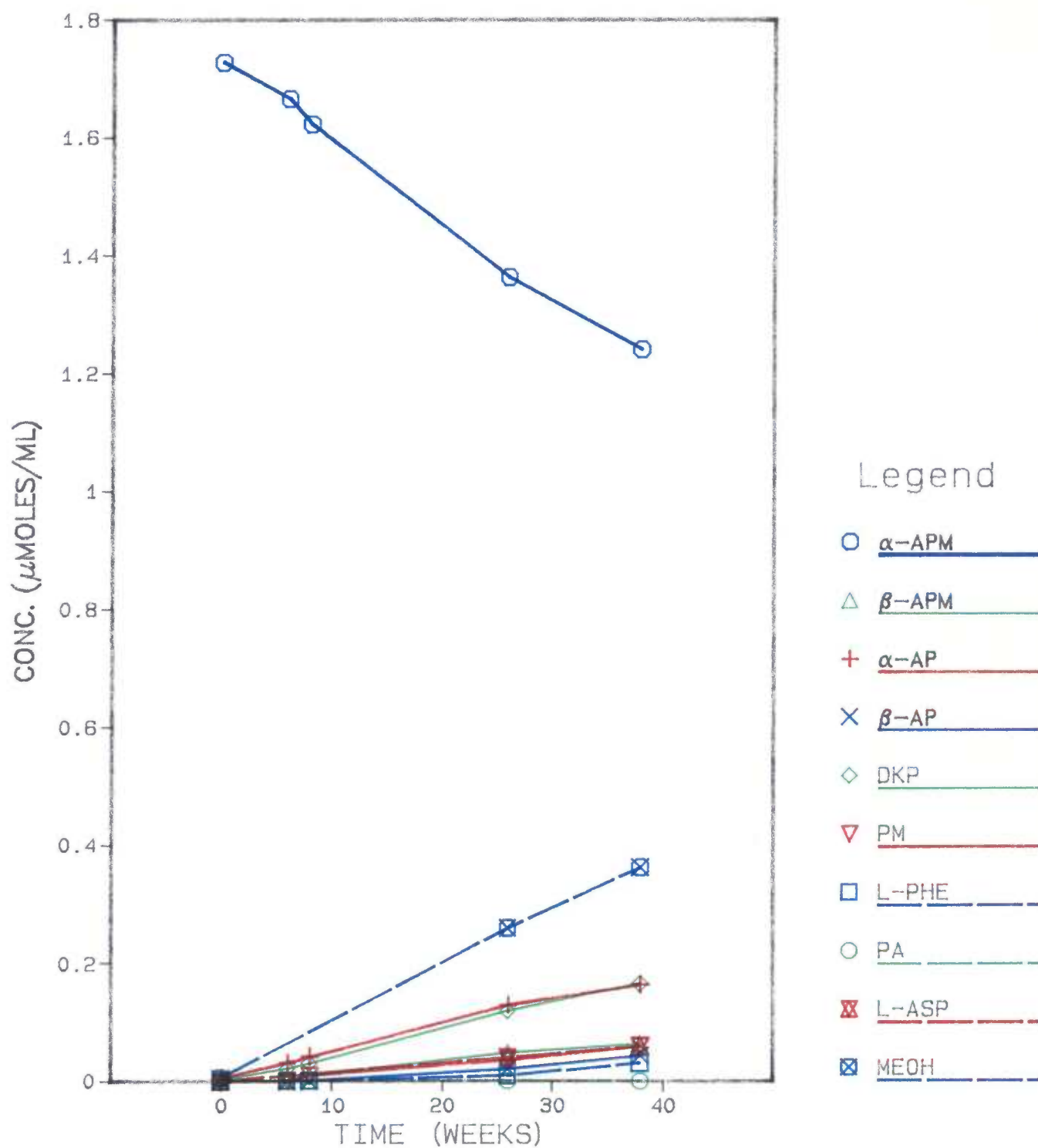
MOLE BALANCE REPORT FOR APM , ITS CONVERSION PRODUCTS IN BEVERAGES

Initial pH = 3.48, with preservative (.2000 grams/liter) and flavor (0.95 grams/liter)  
buffered with citric acid (.9610 grams/liter) sodium citrate (.2800 grams/liter)

Amount present expressed as percent of APM initially present  
Note: a zero represents a value below detection limit

STUDY NO.	TEMP	WEEKS	alpha-APM	beta-APM	alpha-AP	beta-AP	DKP	PM	L-Phe	PA	L-Asp	MeOH
8214	5	0	100.0	0.0	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.3
8214	5	6	98.1	0.0	1.0	0.0	0.5	0.0	0.0	0.0		
8214	5	26	95.5	0.5	2.8	0.0	1.4	0.3	0.1	0.0	0.4	4.0
8214	5	38	94.5	0.7	3.8	0.1	1.8	0.8	0.8	0.0	0.5	5.5
8214	20	6	96.4	0.0	1.8	0.0	1.2	0.0	0.0	0.0		
8214	20	8	93.9	0.6	2.4	0.1	1.8	0.6	0.0	0.0		
8214	20	26	78.9	2.8	7.5	1.2	6.9	2.1	0.6	0.0	2.3	15.0
8214	20	38	71.8	3.6	9.5	2.5	9.6	3.5	1.8	0.0	3.4	20.0
8214	30	2	94.1	0.7	2.4	0.1	2.4	1.0	0.1	0.0	1.0	4.8
8214	30	4	88.5	1.4	3.8	0.4	4.5	1.8	0.2	0.0		
8214	30	6	83.2	2.0	5.1	0.7	6.4	2.4	0.5	0.0		
8214	30	8	77.0	2.8	5.9	1.3	7.9	3.1	0.7	0.0	3.5	14.9
8214	30	16	61.3	5.0	7.9	4.2	14.6	4.7	2.5	0.1		
8214	30	26	44.7	6.4	8.2	9.1	20.7	5.9	5.3	0.3	9.1	39.8
8214	30	38	30.5	7.6	7.0	13.7	25.1	6.6	9.2	0.5	13.0	51.6
8214	40	1	97.1	0.0	2.3	0.1	3.3	1.5	0.1	0.0	1.4	6.5
8214	40	2	85.6	1.6	3.7	0.5	5.9	2.7	0.4	0.0		
8214	40	4	72.6	3.2	5.3	2.0	11.1	4.8	1.3	0.1	5.2	18.4
8214	40	6	60.0	4.5	5.9	3.7	15.1	6.0	2.6	0.1	8.2	25.1
8214	40	12	36.2	7.2	5.3	9.5	24.2	7.8	7.5	0.4	14.7	43.9
8214	40	16	25.4	8.0	4.4	12.4	28.5	7.5	11.7	0.6	18.8	56.6

$\alpha$ -APM & CONVERSION PRODUCTS  
20°C STUDY 8214



Mar. 31, 1986

## MOLE BALANCE REPORT FOR APM A .TS CONVERSION PRODUCTS IN BEVERAGES

Initial pH = 4.37, with preservative (.2000 grams/liter)  
buffered with citric acid (.9610 grams/liter), sodium citrate (1.200 grams/liter)

Average of six measurements ( micromoles per milliliter )  
Note: a zero represents a value below detection limit

STUDY NO.	TEMP	WEEKS	alpha-APM	beta-APM	alpha-AP	beta-AP	DKP	PM	L-Phe	PA	L-Asp	MeOH
8215	5	0	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
8215	5	6	1.75	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.05
8215	5	26	1.70	0.00	0.03	0.00	0.02	0.00	0.00	0.00	0.00	0.07
8215	5	38	1.67	0.00	0.04	0.00	0.03	0.01	0.01	0.00	0.00	
8215	20	6	1.72	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	
8215	20	28	1.49	0.02	0.12	0.01	0.11	0.01	0.00	0.00	0.01	0.24
8215	20	38	1.39	0.03	0.15	0.02	0.15	0.01	0.01	0.00	0.02	0.29
8215	30	2	1.69	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.01	0.05
8215	30	4	1.60	0.00	0.05	0.00	0.06	0.00	0.00	0.00		
8215	30	6	1.57	0.01	0.07	0.00	0.09	0.01	0.00	0.00		
8215	30	8	1.48	0.02	0.08	0.01	0.11	0.01	0.00	0.00	0.02	0.19
8215	30	16	1.30	0.03	0.14	0.03	0.21	0.02	0.02	0.00		
8215	30	26	1.10	0.05	0.18	0.06	0.30	0.02	0.04	0.00	0.05	0.53
8215	30	38	0.88	0.06	0.20	0.11	0.38	0.03	0.07	0.00	0.07	0.71
8215	40	1	1.74	0.00	0.03	0.00	0.05	0.00	0.00	0.00	0.01	0.08
8215	40	2	1.60	0.01	0.05	0.00	0.08	0.01	0.00	0.00		
8215	40	4	1.43	0.02	0.08	0.01	0.15	0.02	0.01	0.00	0.03	0.24
8215	40	6	1.33	0.03	0.11	0.02	0.22	0.02	0.02	0.00	0.04	0.32
8215	40	12	0.97	0.06	0.15	0.08	0.36	0.02	0.06	0.00	0.08	0.62
8215	40	16	0.79	0.08	0.15	0.12	0.47	0.02	0.09	0.00	0.09	0.79



# MOLE BALANCE REPORT FOR APM A. ITS CONVERSION PRODUCTS IN BEVERAGES

Initial pH = 4.37, with preservative (.2000 grams/liter)  
buffered with citric acid (.9610 grams/liter), sodium citrate (1.200 grams/liter)

Amount present expressed as percent of APM initially present  
Note: a zero represents a value below detection limit

STUDY NO.	TEMP	WEEKS	alpha-APM	beta-APM	alpha-AP	beta-AP	DKP	PM	L-Phe	PA	L-Asp	MeOH
8215	5	0	100.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	1.5
8215	5	6	100.3	0.0	0.6	0.0	0.4	0.0	0.0	0.0	0.0	3.0
8215	5	26	97.2	0.2	1.9	0.0	1.1	0.0	0.0	0.0	0.0	3.9
8215	5	38	95.7	0.3	2.5	0.0	1.4	0.4	0.4	0.0	0.0	3.9
8215	20	6	98.6	0.0	2.1	0.0	1.8	0.1	0.0	0.0	0.0	13.8
8215	20	28	85.0	1.1	6.8	0.5	6.3	0.5	0.3	0.0	0.6	16.3
8215	20	38	79.5	1.4	8.7	1.0	8.3	0.7	0.6	0.0	1.0	16.3
8215	30	2	96.8	0.2	1.6	0.0	1.9	0.0	0.0	0.0	0.4	2.7
8215	30	4	91.5	0.0	2.8	0.1	3.4	0.0	0.1	0.0	0.0	11.0
8215	30	6	89.8	0.7	4.0	0.2	5.1	0.5	0.2	0.0	0.0	30.2
8215	30	8	84.3	0.9	4.8	0.4	6.2	0.7	0.3	0.0	0.9	40.5
8215	30	16	74.5	1.9	7.9	1.5	11.8	0.9	1.1	0.0	2.6	4.6
8215	30	26	62.7	2.9	10.3	3.6	17.2	1.1	2.1	0.1	3.8	13.6
8215	30	38	50.6	3.1	11.4	6.5	21.9	1.5	3.9	0.1	5.4	18.0
8215	40	1	99.6	0.0	1.6	0.0	2.6	0.1	0.0	0.0	0.6	35.7
8215	40	2	91.4	0.6	2.9	0.2	4.5	0.5	0.2	0.0	0.0	45.2
8215	40	4	82.1	1.2	4.9	0.6	8.6	1.0	0.6	0.0	1.6	13.6
8215	40	6	75.8	1.6	6.5	1.3	12.6	1.1	1.2	0.0	2.3	18.0
8215	40	12	55.7	3.5	8.4	4.5	20.8	1.4	3.2	0.1	4.6	35.7
8215	40	16	45.3	4.6	8.6	7.1	26.8	1.2	5.4	0.2	5.4	45.2

$\alpha$ -APM & CONVERSION PRODUCTS  
30°C STUDY 8215

