CAPSULES
preliminary notes and applications from Bioanalytical Systems, Inc.

LCEC Candidates in the Biochemical Sciences

The compounds listed below are excellent prospects for determination by liquid chromatography/electrochemistry (LCEC). All have readily oxidizable functional groups in their structures. Structures (codes A to H and "R" groups 1 to 28) are given on the reverse side of this note. In almost all cases, published references are available.

It is important to recognize that predicting success with an LCEC assay requires knowledge of the species, the specific sample type, the anticipated analyte concentration, and the anticipated number of samples to be processed. If you advise us of your goals, we can often help you meet them with appropriate literature references and BAS in-house procedures.

Tyrosine Metabolites

A,8	Tyrosine
A,21	Octopamine
A,22	Tyramine
A,23	Synephrine
A,24	Hordenine
B,22	Dopamine
B,25	α-Methyl dopamine
B,26	Epinine
B,8	L-Dopa
B,23	Epinephrine
B,21	Norepinephrine
B,27	Isoproterenol
B,9	Aldomet
D,21	Normetanephrine
D,23	Metanephrine

Tryptophan Metabolites

F,10,8	Tryptophan
F,18,8	5-Hydroxytryptophan
F,18,22	Serotonin
F,18,2	5-HIAA
F,18,24	Bufotenin
H,22,10	Mausamine
H,8,10	Kynurenine
G,10	Kynurenic acid
H,18,8	Anthranilic acid
H,8,18	3-Hydroxykynurenine
G,18	Xanthurenic acid
H,18,18	3-Hydroxyanthranilic acid

Phenylpropionic Acids

A,3	4-Hydroxy
B,3	3,4-Dihydroxy
D,3	4-Hydroxy-3-Methoxy

Phenylpyruvic Acids

A,5	4-Hydroxy
D,5	4-Hydroxy-3-Methoxy

Benzoic Acids

C,1	3,4,6-Trihydroxybenzoic acid
B,1	2,3-Dihydroxybenzoic acid
B,1	Gentisic acid
A,1	4-Hydroxybenzoic acid
B,1	Protocatechuic acid
A,1	Salicylic acid
D,1	Vanillic acid
E,1	4-Hydroxy-3, 5-dimethoxybenzoic acid

Cinnamic Acids

B,7	Caffeic acid
A,7	p-Hydroxycinnamic acid
E,7	Synapic acid
D,7	Ferrulic acid

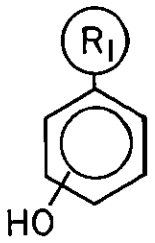
Mandelic Acids

A,6	4-Hydroxymandelic acid
B,6	DOMA
D,6	VMA

Neutral Phenols

C,10	Phloroglucinol
D,15	MOPEG (MPHG)
B,15	DOPEG
D,14	MOPET
C,14	DOPET
D,10	Guaicol

BAS 2701 Kent Ave • W. Lafayette, IN 47906 • (317) 463-4527 • TEL: 276141 • FAX (317) 497-1102



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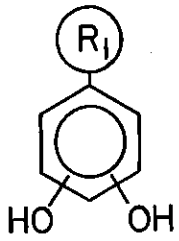

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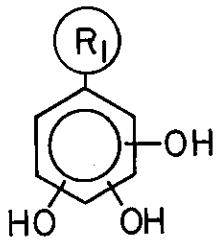

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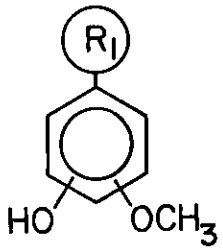

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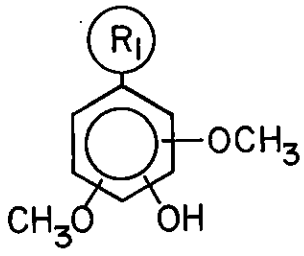

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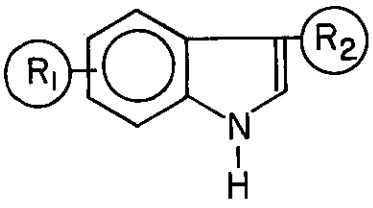

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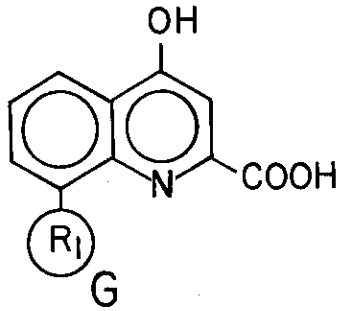

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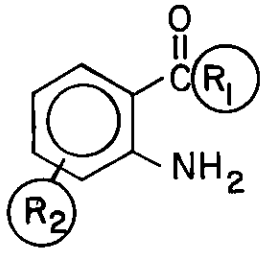

H

D,17	Cresol
D,16	Vanillin
E,13	Xanthoxylin

Acids

Code Number	R Group
1	-COOH
2	$-CH_2COOH$
3	$-CH_2CH_2COOH$
4	$-CH_2CH(OH)COOH$
5	$-CH_2COCOOH$
6	$-CH(OH)COOH$
7	$-CH = CH-COOH$
8	$-CH_2CH(NH_2)COOH$
9	$-CH_2C(CH_3)(NH_2)COOH$

Neutrals

Code Number	R Group
10	-H
11	$-CH = CH-CH_3$
12	$-CH_2-CH = CH_2$
13	$-COCH_3$
14	$-CH_2CH_2OH$
15	$-CH(OH)CH_2OH$
16	-CHO
17	$-CH_3$
18	-OH

Bases

Code Number	R Group
21	$-CH(OH)CH_2NH_2$
22	$-CH_2CH_2NH_2$
23	$-CH(OH)CH_2NHCH_3$
24	$-CH_2CH_2N(CH_3)_2$
25	$-CH_2CH(CH_3)NH_2$
26	$-CH_2CH_2NHCH_3$
27	$-CH(OH)CH_2NH-CH(CH_3)_2$
28	$-CH(OH)CH(CH_3)NH_2$