











Amino acid	Amino acids: two functions, an acid & a base, in the same molecule					
Amines	$R-NH_2$		R ₂ O H-N-C-C-OH			
Carboxylic	Acids R-C-C	H H H	Ĥ Ĥ			
	Functions					
	Alcohol	R-OH				
	Ether	R-O-R'				
Х	Amine	R-NH ₂				
	Aldehyde	O R-C-H				
	Ketone	R-C-R'				
Х	Carboxylic Acid	O R-C-OH				
	Ester	R-C-OR' O P"				
	Amide	R-C-N				
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One molecule, three functions: One Smell Receptor

An extract of the cured, fullgrown, unripe fruit of an orchid produces a popular flavoring. The natural extract sells for ~ \$1500/ kg versus ~ \$20/kg for the synthetic version. The structure of the compound that is responsible for the smell/flavor is shown to the right. The Guinness Book of World Records once listed this compound as having the lowest smell detection limit of all chemicals (2 x 10 $^{-11}$ g per 1,000 cm³ of air).



Bonus: The space (volume) of the Oakland Coliseum Arena, aka Oracle Arena, is approximately 90,000,000 ft³. If 1.00g of the compound were released at center court, and was completely and evenly dispersed throughout the building, would you smell it sitting in sec. 204, row H, seat 121? Show your calculation. (1 ft³ = 0.0283 m³)















	Organic Molecular Jeopardy <i>Tabulation</i> Organic Molecular Jeopardy						
C							
	UESTION	A A	В	с	D	E	
F	1						
	2						
	3						
	4						
	5						
	6						
	7						
1	FINAL						
10	JIAL						
h	ttps://w	A woi /ww.you	rd from tube.con	our sp n/watch?	onsor: v=hfe5x	Q1M7Jw	









PRODUCT: Acetyl salicylic acid (aspirin) Common Functional Groups						
<u>Name</u>	General For	General Formula				
Aldehydes		О R-C-H				
Ketones		O R-C-R'				
Carboxylic Ac	ids	O R-C-OH	acetyl ester			
Esters		O R-C-OR'	acid_			
Amides		OR" R-C-N R'				















