

Solution Preparation Practice

Fill in the spaces in the following table:

Substance	Soln. Density	M	molality	% w/v	%w/w	ppt w/v	X _{water}	OsM
NaCl	1.00	0.012						
C ₆ H ₁₂ O ₆	1.12		1.55					
Acetone	0.87			26.5				
Na ₃ S				51.6	46.1			
MgCl ₂	1.00					254		
Ethanol	0.92						0.250	
Ca(NO ₃) ₂					7.65			1.75

Solubility

Fill in the spaces in the following table for the solubility of each of the following in water:

	K_{sp}	Solubility in water	Solubility in 0.0001 M X	X (M)	Y (M)
XY	1.25×10^{-7}				
XY ₂	4.71×10^{-12}				
X ₂ Y ₃	8.29×10^{-32}				
XY ₃	2.80×10^{-24}				
XY ₄	8.14×10^{-40}				
X ₃ Y ₄	9.23×10^{-58}				