

EXP. NUMBER	EXPERIMENT/SUBJECT	DATE		
NAME	LAB PARTNER	LOCKER/DESK NO.	COURSE & SECTION NO.	

Observations:

upon addn. of pyrrole to prop. acid, was not immediately soluble
(not perfectly clear) / oily
upon addn of benzaldehyde, a yellow layer separated to the bottom

used $FeCl_2 \cdot 4H_2O$ (tube #7)
mass of tube = 0.807g
mass of tube + sample = 0.928g $\rho = .121$
length = 1.8 cm
3520 = magnetic susceptibility of sample
Temp = 291°K MW = ~~200.075~~ 196.814
(ol. constant = 1.002)
-30 = magnetic suscept. of tube

Reflux Time Start = 2:33
Time Stop = 3:03

As it heated/refluxed, it turned black

mass of scint vial + tape = 12.987

$$(1.8 / .121) [1.002 (3520 - (-30))] \times 10^{-9}$$

$$X_g = \frac{5.292 \times 10^{-5} (234.75)}{5.292 \times 10^{-5}}$$

$$X_m = 5.292 \times 10^{-5} (234.75)$$

$$X_m = 0.01052$$

$$X_A = 0.0124 - [(2/23) \times 10^{-4}] - (4(13) \times 10^{-6})$$

$$= 0.01058$$

~~XXXXXXXXXXXX~~

$$\mu_{eff} = 2.828 \sqrt{(0.01058)(291)} = 4.963 \text{ BM}$$

closer to 4.90, so
N = 4
since d6, high spin yields 4 unpaired electrons.

SIGNATURE	DATE	WITNESS/TA	DATE
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