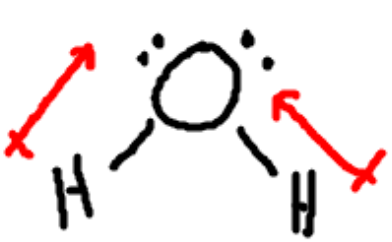
51) electronegativity = how much an atom wants a (2) shared pair of electrons

52) (1) F

53) (3) a) C or O b) S or O c) Li or F

61) H_2O 3



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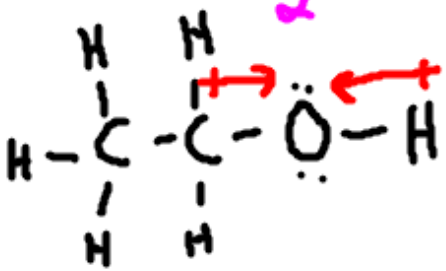

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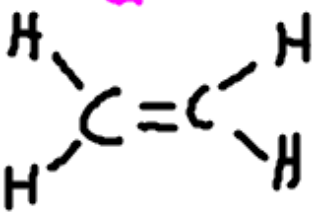
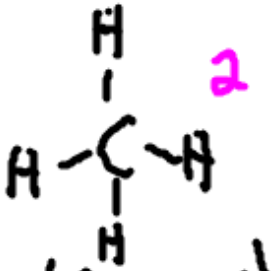


63) 2

NP

Same Element

2



NP equal Pull

NP-Bond

H—Br 2

P

Polar bond

19 3.2

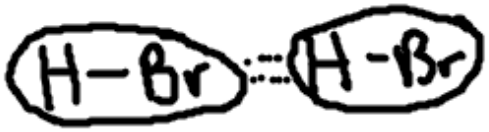
65) 2 covalent bond - within molecule

Intermolecular force of attraction - between molecules

67) 5 dispersion, dipole-dipole, H-bonding

weakest — strongest

69) 2 Temporary charge between 2 atoms in a NP bond

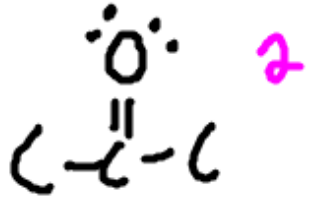
71)  3

dipole-dipole

73) C_5H_{12} 2

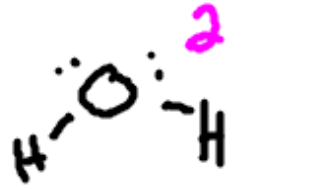
dispersion

NP molecule

 2

dispersion

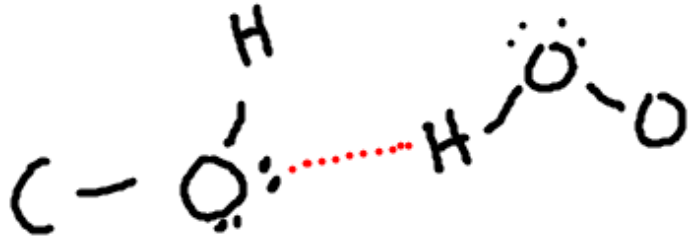
dipole

 2

H-bonding

18

77) 3



79) 1 H-bonding

81) 3 Estrogen binds to the estrogen receptor and activates several genes. This gene activation also stimulates the proliferation of breast cancer cells.

82) 3 Antiestrogens block the estrogen receptor in breast cells. 3 when antiestrogens bind to the receptor.

83) The estrogen receptor is a large protein molecule. Estradiol fits the estrogen binding site perfectly because it has a complimentary shape to the binding site - a cavity within the receptor.

13

84) 3 Dispersion forces allow estradiol to bind to the estrogen receptor site.

85) 3 When Tamoxifen binds to the receptor, it changes the shape of the receptor, preventing gene activation.

86) 3 Estrogen promotes the growth of strong bones; bone cells contain estrogen receptors. If estrogen is prevented from binding to these receptors, bone loss or osteoporosis will occur.

40 (3.7)

/9