Oxyacids of sulphur : All are dibasic acids

H_2SO_3 $\rightarrow$ Sulphurous acid
H_2SO_4 $\rightarrow$ Sulphuric acid
H_2SO_5 $\rightarrow$ Per – oxo – monosulphuric acid or Caro's acid
$H_2S_2O_2$ $\rightarrow$ Thiosulphurous
$H_2S_2O_3$ $\rightarrow$ Thiosulphuric
$H_2S_2O_4$ $\rightarrow$ Dithionous acid or hyposulphurous acid
$H_2S_2O_5$ $\rightarrow$ Pyro – sulphurous acid
$H_2S_2O_6$ $\rightarrow$ Dithionic acid or hyposulphuric acid
$H_2S_2O_7$ $\rightarrow$ Pyro sulphuric acid or oleum / disulphuric acid
$H_2S_2O_8$ $\rightarrow$ Per – oxo – disulphuric acid or marshals acid
$H_2S_{n+2}O_6 \rightarrow$ Poly thionic acid [n = 1 – 10]

OXYACIDS OF SULPHUR :

Formula	Structure	Oxidation Number	No.of (p-d)π bonds	Average oxidation state of sulphur	Basicity
H_2SO_3	OH – S – OH $\parallel$ O	+ 4	1		2
H_2SO_4	O $\parallel$ OH – S – OH $\parallel$ O	+ 6	2		2
H_2SO_5	O $\parallel$ OH – S – O – OH $\parallel$ O	+ 6	2		2
$H_2S_2O_2$	OH – S – OH $\parallel$ S–2	− 2, + 4	1		2
$H_2S_2O_3$	O $\parallel$ OH – S – OH $\parallel$ S–2	− 2, + 6	2		2
$H_2S_2O_4$	OH – S – S – OH $\parallel$ $\parallel$ O O	(+3, +3)	2	+ 3	2
$H_2S_2O_5$	O $\parallel$ OH – S – S – OH $\parallel$ $\parallel$ O O	(+ 5, + 3)	3	+ 4	2
$H_2S_2O_6$	O O $\parallel$ $\parallel$ OH – S – S – OH $\parallel$ $\parallel$ O O	(+ 5, + 5)	4	+ 5	2

$H_2S_2O_7$	$OH-\overset{\displaystyle O}{\underset{\displaystyle O}{S}}-O-\overset{\displaystyle O}{\underset{\displaystyle O}{S}}-OH$	(+ 6, + 6)	4	+ 6	2
$H_2S_2O_8$	$OH-\overset{\displaystyle O}{\underset{\displaystyle O}{S}}-O-\overset{\displaystyle O}{\underset{\displaystyle O}{S}}-O-OH$	(+ 6, + 6)	4	+ 6	2
$H_2S_{n+2}O_6$	$OH-\overset{\displaystyle O}{\underset{\displaystyle O}{S}}-S_{(n)}-\overset{\displaystyle O}{\underset{\displaystyle O}{S}}-OH$	(+ 5, + 5)	4	+ 5	2