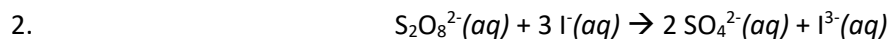


RATE LAW PRACTICE

What is the rate law for the following reactions?



Experiment	[A]	[B ₂]	Initial Rate, (M/s)
1	1.5×10^{-3}	1.5×10^{-4}	0.60
2	1.5×10^{-3}	1.2×10^{-3}	4.8
3	3.0×10^{-3}	1.5×10^{-4}	2.4



Experiment	[S ₂ O ₈ ²⁻]	[I ⁻]	Initial Rate, (M/s)
1	0.25	0.10	9.00×10^{-3}
2	0.10	0.10	3.60×10^{-3}
3	0.20	0.30	2.16×10^{-2}



Experiment	[A]	[B]	[C]	Initial Rate, (M/s)
1	0.3	0.4	0.2	0.04
2	0.3	0.4	0.6	0.12
3	0.3	0.8	0.6	0.48
4	0.6	0.4	0.2	0.04



Experiment	[A]	[B]	[C]	Initial Rate, (M/s)
1	0.25	0.084	1.2	0.084
2	0.75	0.021	1.2	0.756
3	0.25	0.042	1.2	0.084
4	0.75	0.252	2.4	3.024



Experiment	Pressure (mm Hg)			Initial Rate of D formation, (mm Hg/s)
	A	B	C	
1	385	185	195	6.75
2	192.5	370	390	13.5
3	192.5	185	390	6.75
4	192.5	185	195	3.375
5	550	250	125	S
6	R	350	350	2.00

Determine the rate law and solve for the unknown values S and R