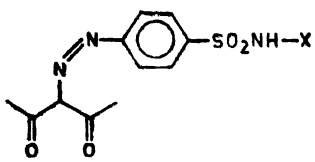
TABLE 2—3,5-DIMETHYL-4-(SUBSTITUTED SULFONAMIDOBENZENE AZO, 4-SULFOPHENYL AZO AND 4-SULFONAPHTHYL AZO)PYRAZOLE

Sl. no.	X	R	M.p. °C
1	$HOOCCH_2-$	R_a	217
2	H_5C_6-	R_a	194
3	$4\text{-}NO_2-C_6H_4-$	R_a	206
4	$HOOCCH_2-$	R_b	103
5	H_5C_6-	R_b	160
6	$4\text{-}NO_2-C_6H_4-$	R_b	111
7	$HOOCCH_2-$	R_c	280
8	H_5C_6-	R_c	166
9	$4\text{-}NO_2-C_6H_5-$	R_c	222
10	H_5C_6-	R_d	166
11	$4\text{-}NO_2-C_6H_4-$	R_d	211
12	$4\text{-}SO_3H-C_6H_4-$	R_a	292
13	$4\text{-}SO_3H-C_{10}H_6-$	R_a	135
14	$4\text{-}SO_3H-C_6H_4-$	R_b	267
15	$4\text{-}SO_3H-C_{10}H_6-$	R_b	171
16	$4\text{-}SO_3H-C_6H_4-$	R_c	205
17	$4\text{-}SO_3H-C_{10}H_6-$	R_c	272
18	$4\text{-}SO_3H-C_{10}H_6-$	R_d	286

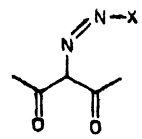
dure[5]. Azo dicarbonyl compounds were treated with the appropriate carbhydrazides using the procedure mentioned above, to obtain hydrazones (Table 1) and azo pyrazoles (Table 2), respectively.

Screening for antibacterial activity : The compounds in Table 2 have been evaluated for their antibacterial activity. The test organisms employed were *Bacillus subtilies, Staphylococcus aureus, Salmonella typhi, Escherichia coli,* and *Pseudomonas aeruginosa.* The antibacterial activity of the compounds were tested by ditch plate technique[8], using the concentration levels 2 mg and 3 mg per ml.

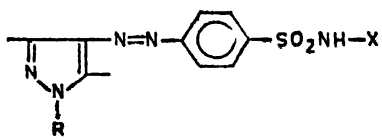
Compounds 1, 3 and 4 showed complete inhibition of *B. subtilies.* Compounds 12 and 16 showed complete inhibition of *S. aureus.* Compounds 12 and 16 showed complete inhibition of *S. typhi,* whereas compound 18 showed only partial inhibition. Compounds 14 and 16 showed complete inhibition of *P. aeruginosa.* The other compounds showed no activity on the organisms under study. None of the compounds studied showed any activity against *E. coli.* These results were identical for both the concentrations of the compounds studied.



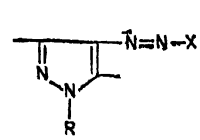
(Ia)



(Ib)

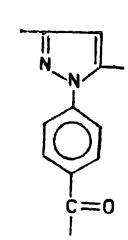


(IIa)

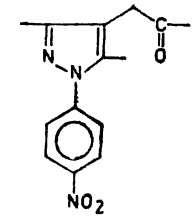


(IIb)

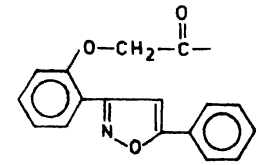
Substituents R = R_a, R_b, R_c, R_d.



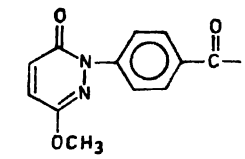
(Ra)



(Rb)

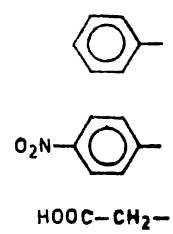


(Rc)



(Rd)

X =



(Ia, IIa)

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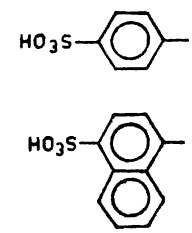

(Ib, IIb)

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Reaction of Nitrosyl Chloride with Steroidal Olefins

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NITROSYL chloride gas was used for chloronitrosation of steroidal alcohols[1] and oximes[2,3]. The work of Tanabe *et al.*[4] which dealt with the