NOTE.

Some Quinoline Derivatives of Sulphanilamide. By O. G. Backeberg and J. L. C. Marais.

2- and 4-Substituted quinoline derivatives have been prepared by condensing sulphanilamide with the readily accessible 2-chlorolepidine and 4-chloroquinaldine and with the 6-methoxy- and the 6-ethoxy-derivative of the former and the 6- and 8-methoxy- and -ethoxy-derivatives of the latter. The compounds described are all substituted in the amino- or N^4-group; substitution in the sulphonamido- or N^1-group could not be effected with these chloro-compounds by Phillips' method (J., 1941, 9), or from the corresponding aminoquinolines (this vol., p. 381) and *p*-acetamidobenzenesulphonyl chloride. The nomenclature adopted is that suggested by Crossley, Northey, and Hultquist (*J. Amer. Chem. Soc.*, 1938, **60**, 2217).

3 G. (1 mol.) of the chloro-compound and sulphanilamide (1 mol.) were refluxed for 2—3 hours in glacial acetic acid solution (10—15 c.c.); in some cases the hydrochloride of the condensation product separated. After reaction, the whole was poured into 150 c.c. of water and neutralised with ammonia. The bases obtained (70—80% yield) were crystallised from dilute alcohol or dilute pyridine. The condensations were also carried out by heating the reactants at 180° for 15 minutes in the absence of a solvent (Bobranski, *Arch. Pharm.*, 1939, **277**, 75), but some of the quinaldine condensation products were contaminated with a coloured substance, and in these cases the fomer method of condensation was to be preferred.

N^4-(2′-*Lepidyl*)*sulphanilamide*, colourless plates, m. p. 258° (Found: C, 61·4; H, 4·8; N, 13·55. $C_{16}H_{15}O_2N_3S$ requires C, 61·35; H, 4·8; N, 13·4%).

N^4-(6′-*Methoxy*-2′-*lepidyl*)*sulphanilamide*, small, pale yellow plates, m. p. 249° (Found: C, 59·4; H, 5·2; N, 12·25. $C_{17}H_{17}O_3N_3S$ requires C, 59·5; H, 4·95; N, 12·25%).

N^4-(6′-*Ethoxy*-2′-*lepidyl*)*sulphanilamide*, small, pale yellow plates, m. p. 278° (Found: C, 60·7; H, 5·3; N, 11·8. $C_{18}H_{19}O_3N_3S$ requires C, 60·5; H, 5·3; N, 11·75%).

N^4-(4′-*Quinaldyl*)*sulphanilamide*, small, colourless plates, m. p. 280° (decomp.) (Found: C, 61·2; H, 4·85; N, 13·4. $C_{16}H_{15}O_2N_3S$ requires C, 61·35; H, 4·8; N, 13·4%).

N^4-(6′-*Methoxy*-4′-*quinaldyl*)*sulphanilamide*, small, colourless needles, m. p. 301° (decomp.) (Found: C, 59·7; H, 5·1; N, 12·3. $C_{17}H_{17}O_3N_3S$ requires C, 59·5; H, 4·95; N, 12·25%).

N^4-(8′-*Methoxy*-4′-*quinaldyl*)*sulphanilamide*, small, colourless needles, m. p. 293° (decomp.) (Found: C, 59·4; H, 5·05; N, 12·3%).

N^4-(6′-*Ethoxy*-4′-*quinaldyl*)*sulphanilamide*, small, colourless needles, m. p. 308° (decomp.) (Found: C, 60·35; H, 5·3; N, 11·9. $C_{18}H_{19}O_3N_3S$ requires C, 60·5; H, 5·3; N, 11·75%).

N^4-(8′-*Ethoxy*-4′-*quinaldyl*)*sulphanilamide*, small, colourless needles, m. p. 277° (decomp.) (Found: C, 60·3; H, 5·3; N, 11·9%).

The authors thank Professor H. Stephen for his interest in the work.—University of the Witwatersrand, Johannesburg, South Africa. [*Received, October 21st*, 1942.]