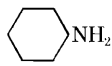
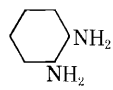
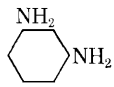
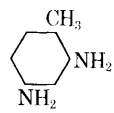
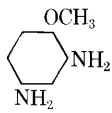
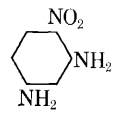
Table X

Phenylamines Used for Coupling with the Para Compounds

14. Aniline	
15. *o*-Phenylenediamine	
16. *m*-Phenylenediamine	
17. *m*-Toluylenediamine	
18. 2,4-Diaminoanisol	
19. Nitro-*m*-phenylenediamine	

Experimental Results

Of the possible 95 indophenols or indamine dyes that can be prepared from the intermediates listed, 80 have been made and tested, including all possible 19 each from *p*-aminodimethylaniline, *p*-aminoacetanilide, and *p*-aminophenol. The results of the substantivity, light fastness, and ageing tests, and a description of the color produced on dyeing hair are summarized in the tables given in the supplements to this paper. A complete range of colors can be obtained with these dyes. Of the 80 dyes tested, 8 failed the substantivity test. Of the 72 remaining dyes, 42 failed the light fastness test, and 50 failed the ageing test. This is possible because 32 dyes failed both the light fastness and ageing tests. Ten of the dyes passed all three of these tests and varied, in the shades produced on hair, from a yellow, to an orange, to a pink, and to several shades of brown. All of the blue or gray shades, in this series, failed to pass either the ageing or light fastness tests or both. The presumed structures of the dyes that passed these three tests are shown in Table XI.

Dye number D-1 cannot be included in the above table and so its presumed structure is given separately.