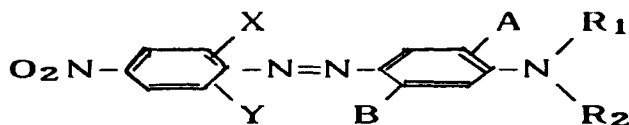


시아노기 치환 4-아미노-4'-니트로아조벤젠계 염료의 알칼리  
 가수분해에 대한 분광학적 고찰  
 Spectral Study on the Alkaline Hydrolysis of Cyano  
 Substituted 4-Amino-4'-Nitro-Azobenzene Dyes

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**Abstract:** The dyes containing two *ortho*-substituents in acceptor ring such as 2-cyano-6-bromo(II) and 2,6-dicyano(III) dyes were very rapidly hydrolyzed by alkaline and showed both large hypsochromic and hypochromic shifts. Similarly for the dyes (IV,V) which have an *o*-cyano group in acceptor ring, hypsochromic shifts of absorption band together with reductions in tinctorial strength were also obtained by the hydrolysis and only the water-insoluble and dyeable dyes remained without hypsochromic shift during hydrolysis participated in dyeing of polyester. These results may be caused by the decrease of electron-withdrawing power of acceptor and steric hindrance resulted from the hydrolysis of the cyano group *ortho* to the azo group and any other cleavages by hydrolysis.

The dyes (V,VI) containing an acetoxyalkyl group in terminal amino group produced a bathochromic shift by hydrolysis of acetoxy group.



	X	Y	A	B	R <sub>1</sub>	R <sub>2</sub>
I	H	H	H	H	H	H
II	CN	Br	H	NHCOC <sub>2</sub> H <sub>5</sub>	CH <sub>2</sub> CH <sub>3</sub>	CH <sub>2</sub> CH <sub>3</sub>
III	CN	CN	H	NHCOCH <sub>3</sub>	CH <sub>2</sub> CH <sub>3</sub>	CH <sub>2</sub> CH <sub>3</sub>
IV	CN	H	H	H	CH <sub>2</sub> CH <sub>2</sub> CN	CH <sub>2</sub> CH <sub>3</sub>
V	CN	H	H	H	C <sub>2</sub> H <sub>4</sub> CN	C <sub>2</sub> H <sub>4</sub> OCOCH <sub>3</sub>
VI	Cl	Cl	H	H	C <sub>2</sub> H <sub>4</sub> CN	C <sub>2</sub> H <sub>4</sub> OCOCH <sub>3</sub>