uses of organic azides in organic synthesis

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Summary : Phthaloyl azide (I) was used to prepare N•substituted carbamoyl -benzimidazolones (III) via the base•catalyzed de-composition with amines, (II a-a), p aminobenzoic acid (II h), and hydrazines (II i, and j).Mass Spectra for (III) were presented, and discussed (cf. Charts 24, and 7).Mass Spectra of benzitaidazoloneMpand p•anisylisO• cyanate(VI s)revealed that they were formed as intermediates during the fragmentation of(IIIThe hitherto unknown reaction of amyl azides (VII awe) with phthalic anhydride in pyridine base, was used to prepare N-arylphthalimides (VII a-e). Mass Spectra of (VIII ego Wwere presented, and discussedA new acid-catalyzed double route decomposition of aroyl azides (VII a-f) in a mixture of (p.p.A./carboxylic acid) gives a mixture of acids (XVII a-f), and anilides (XVIII a-1). Cinnamoyl azide (VII g) under the same conditions gives cinnamic acid (XVII g), and phenyl acetaldehyde.o-Aroyl benzazides(XXVIIIE-ci) react -with (P.P.A./ carboxylic acid, or HBr/ACOH acid) to give a mixture of o - aroyl benzoic acids (XXIX a-d) and aroyl anthranilic acids (OX(a-d) the hitherto unknown acid-catalyzed decomposition of aroyl azides in a mixture of Filar/A0OH gives acids (XVII a-e) and amine hydrobromides (XXAII.